



Upper School Curriculum Planner 2024-2025

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We Go Further

INTRODUCTION

Friends' Central's Upper School curriculum provides an exceptional college-preparatory program in an atmosphere that sets the highest of academic and personal standards. Classrooms promote independent thought, the courage to voice individual opinions, and the faith that students will listen to and value one another's opinions. Cooperative discussions, one-on-one conferences with faculty, and individual work encourage students to think and perform independently and to solve problems in innovative ways.

The coursework of the Upper School empowers students to see their community through a global lens and to craft thoughts that come from enlightened academic analysis. Information literacy skills — the ability to locate, evaluate, and use information critically — are taught in the context of research assignments in the various disciplines. Courses in the arts are required, as we believe that creativity is an important complement to analytic thinking and value its role in all aspects of life. Additional offerings in the Center for Innovation and Design, as well as varied elective offerings, combine with core courses to prepare students to be cutting-edge 21st century leaders. In addition to the core academic curriculum, every student must take courses in health and fitness to promote wellness and the mind-body integration essential to adolescent development.

This Curriculum Planner includes graduation requirements, a curriculum overview, course descriptions by department, information on our Core Teams, May Term, and elective offerings for the coming academic year. Students, in collaboration with their parents and caregivers, advisors, teachers, and, for older students, college counselors, should use this planner as a guide for choosing courses for the following academic year, while keeping in mind the anticipated path of study through senior year, as well as prerequisite and graduation requirements.

Students are encouraged to evaluate course selection, and they are urged to take advantage of the breadth of opportunities offered at Friends' Central School. Our courses are challenging, requiring sustained investment of time and consistent engagement; however, we also believe that meaningful participation in clubs, athletics, arts, service, and intellectual experiences, like our Core Teams in science, humanities, and justice, is central to the Friends' Central Upper School experience. We ask that students consider off-campus commitments carefully as well to leave time for a full Friends' Central experience.

While planning their Upper School academic program, students and their parents and caregivers may find the grid on page four useful. Graduation requirements are noted, and required courses are listed, but please remember that not all elective courses are offered every year. In addition to fulfilling the academic requirements, students must participate in co-curricular activities, including athletics, or the fall or winter drama production, as a performer or crew member, for six seasons (three of which must be completed by the end of grade 10). During any season in which students do not participate in athletics or in the drama production, they will be required to enroll in either an on- or off-campus wellness program.

In most cases, students will be placed in the courses selected during the registration process. In the case of scheduling conflicts, students may have to choose between multiple courses they would like to take. Advanced courses and some other courses require instructor or departmental approval. Students will be notified about any problems or changes to their course selections.

Please keep in mind that Friends' Central faculty members, department chairs, and college counselors are available to make suggestions and to answer any questions you might have. For more information, please visit the Academics section of our website at friendscentral.org/academics.



CORE TEAMS AT FRIENDS' CENTRAL

Students in the Upper School are encouraged to join one (or more) of our Core Teams, a signature academic program at FCS. While we currently host three different Core Teams – science, humanities, and justice – with the possibility of more teams to come, each team offers a similar experience. A group of students from grades 9 through 12, working together with the guidance and equal participation from members of the faculty and staff, takes a deep dive into the work of a particular, scientist, artist, scholar, and/or activist. These weekly sessions, which may involve everything from analyzing a particular experiment to “performing” a play together to reviewing how activism was used to bring about change, offer students a chance to look closely at the work of an expert in their field and, in so doing, prepare for each team’s capstone experience: the expert’s visit to campus later in the year. On that occasion, in addition to giving a talk open to all FCS students, families, and the public, our distinguished visitor spends a day on campus visiting with members of the Core Team, who get to ask their questions, offer their insights, and hear about the visitor’s current endeavors. Going a step further, members of the Science Core Team end the year with a trip to visit the distinguished scientist in their laboratory. FCS Core Teams represent the very best of scholarship and inquiry. Modeled after intensive college-level seminars, hands-on laboratory work and active ensemble building,

the Core Teams thrive on collaboration, curiosity, creativity, and the collective energy generated by learners with a shared purpose. There are no prerequisites to join a team and little, if any, homework is required. Meetings are scheduled during the school day at lunch or during community blocks. Even though no academic credit is offered to the participants, each fall, Upper School students join the Core Teams because they are interested in a field of study, a social justice issue, or a particular artistic pursuit. Put simply, students on the Core Teams want to learn more. These teams offer students a stress-free opportunity for growth, relationship-building, and exercising their academic muscles.

Sparkling intellectual passion and a spirit of inquiry are central to our mission and vision. Bringing scholars who are at the very top of their fields to Friends’ Central to work with our students is a natural extension of the scholarship they engage with every day with our own talented and passionate faculty. Our distinguished visitors come from major universities, research centers, and artistic hubs. In the last few years, Friends’ Central’s Distinguished Visiting Scientist program has hosted marine scientist and author Edith Widder from the Ocean Research & Conservation Association; Marshall Shepherd, international weather and climate expert and professor at the University of Georgia; Helen White, environmental chemist and associate professor at Haverford College; and Rebecca Saxe, cognitive neuroscientist and MIT professor. In that same time frame, the Humanities Core Team has welcomed Jon Grinspan ’02, Curator of Political History at the Smithsonian’s National Museum of American History; Eve Troutt-Powell, MacArthur-winning Professor of History at The University of Pennsylvania; Daniel Immerwahr ’98, author and professor at Northwestern University; and novelist and Haverford College professor Asali Solomon. The Justice Core Team has hosted filmmaker and activist André Robert Lee; Dr. Steve Larson, physician and co-founder of Puentes de Salud, and Dr. Mona Hanna-Attisha, a pediatrician whose research exposed the Flint water crisis. Each visitor has enriched our students’ experience and, through their public lectures, shared Friends’ Central’s intellectual fire with the public.

Visit our [Distinguished Lecture Series page](#) for more details.



NATURAL LANDS BIODIVERSITY PROGRAM



The Science Department offers a certificate program in ecological monitoring and field research called “Natural Lands” each semester. Those enrolled attend three meetings and three or four Saturday outings during the semester. This program is different from traditional course offerings and may be taken in addition to a six-class course load. It does not carry departmental course credit, but students who complete the semester receive a Certificate in Natural History and Ecology. Students may enroll in one or both semesters and can participate in more than one year.

Core studies focus on ecological observations and field notes, coupled with exploration of regional policy issues

of greatest importance to conservation. There is extensive outdoor work during the warmer months (September to mid-November in semester one; mid-March to early June in semester two), studying pollinating insects (especially flower flies and native solitary bees), salamanders and toads, small mammals, native wildflowers, and migratory birds. Site visits include trips to biologically diverse Natural Lands preserves and other nearby natural areas. Students also participate in habitat restoration work through native plantings and invasive plant removal and may develop web-based publications or seminar presentations outlining individual findings. (Open to students in grades 10-12).



MAY TERM



As an extension of our commitment to student engagement and innovative, immersive learning experiences, Friends' Central is excited to launch a new addition to our Upper School curriculum in 2024-2025 for grades 9-11: a six-day program at the end of the academic year we are calling May Term. These learning intensives will offer the opportunity for students and faculty to delve deeply into topics that extend beyond the regular academic curriculum. May Term courses will provide for interdisciplinary teaching and learning while building connections and relationships between students and faculty across grades and disciplines. In addition to offering students the chance to study a specific topic in depth, many May Term courses will include a community component that provides for engagement beyond the FCS campus. May Term courses will begin after Memorial Day 2025 and will culminate in a division-wide symposium held in June of 2025 to showcase these unique experiences.

May Term is a required course for students in grades 9-11 and will be reflected on students' transcripts. Some May Term offerings may include the opportunity for travel experiences for an additional fee.

Faculty will collaborate across departments to offer courses that engage and challenge students to connect ideas and information in novel, meaningful ways. Some topics and potential classes include the following: Sustainable Agriculture and Food Security; Environmental Justice; Philadelphia Sports: A History of Fandom and Its Relationship to Civic Identity; A Decolonial History of Indigenous Cultures and Languages Around the World; Mystic Spirituality and World Religions; Activism and Social Movements in the Philadelphia Area; Literature and Film Studies; The Computational Power of "Magic: The Gathering;" The Evolution of Hip Hop; and Creative Writing and Photography.



GRADUATION REQUIREMENTS (REQUIRED COURSES)

DEPARTMENT	CREDITS REQUIRED	GRADE 9	GRADE 10	GRADE 11	GRADE 12
ARTS	4 semesters				
ENGLISH	8 semesters	The Journey Begins: Becoming Ourselves	In Pursuit of Justice: the Self in the World	Literature of the United States: Negotiating Identity Semester Seminar	Gods and Monsters: What Does it Mean to Be Human? Semester Seminar
HISTORY	4 semesters	World History		United States History	
MATHEMATICS	6 semesters				
SCIENCE	4 semesters	Physics I			
WORLD LANGUAGES	4 semesters of the same language				
WELLNESS	2 semesters	Quaker School Life Human Sexuality	Health		
ADDITIONAL COURSES	6 semesters	May Term	May Term	May Term	
TOTAL	38 semesters required	10-12 semesters required	10-12 semesters required	10-12 semesters required	10-12 semesters required

The graduation requirements described in the grid above represent the minimum course of study taken by each student. Most students take more than the required number of classes in most academic disciplines, choosing elective courses beyond the requirements stated above. With permission of specific departments, approved courses of summer study may be accepted in order for a student to advance to a higher level of study during the following year. Summer courses will not be applied toward graduation requirements. Please note that summer work is supplemental and does not appear on transcripts.

Students in grade 12 are required to earn a minimum of ten (10) and a maximum of twelve (12) credits over the course of their final year on campus. The preference would be for at least five (5) classes each semester. Students may petition the Upper School administrative team if they have a compelling reason for taking fewer than ten (10) total semesters in 12th grade.

In order to earn a diploma from Friends' Central School, a student must successfully complete their senior year at FCS.

DROP/ADD POLICY

Provided that there is space available, with permission of the relevant teacher and the Dean of Students, Upper School students may add courses until 15 full school days into the semester. Students may drop courses without them appearing on their transcripts until 30 full school days into the semester. After that time, dropped courses will be noted on the transcript with the designation WP (withdrew passing) or WF (withdrew failing).

Note: Grade 12 students are expected to adhere to the initial course sign-up plan for fall and spring classes. Colleges admit grade 12 students with a yearlong plan. Any changes to course selection must be approved by College Counseling and with the schools to which students have been accepted.



CURRICULUM OVERVIEW

Courses marked with # are not yet approved by the NCAA eligibility center as core courses for Division I or II college eligibility.

	GRADE 9	GRADE 10	GRADE 11	GRADE 12
	Chorus Inst. Ensemble Music: Introduction to Theory and Composition Foundations of 2D Art Foundations of Theatre	Chorus Inst. Ensemble Fundamentals of Singing* History of African-American Music from Spirituals to Hip-Hop Music: Introduction to Theory and Composition Music: Theory & Composition II Musical Theatre World Music Drumming Art and Activism 3D Design* Design Thinking: Innovation & Creation Digital Photography Fiber Art Fabrications Foundations of 2D Art Introduction to Graphic Arts & Design Mixed Media: Transformation & Imagination Mixed Media: Connections with the Real World Studio Art I: Foundations of Studio Art Wearable Art: Connections to CID* Wearable Art: Pattern to Precious Metal Clay Acting I Devised Theatre* Foundations of Theatre Scriptwriting: Building a World Topics in Theatre	Chorus Inst. Ensemble Fundamentals of Singing* History of African-American Music from Spirituals to Hip-Hop Music: Introduction to Theory and Composition Music: Theory & Composition II Musical Theatre World Music Drumming Art and Activism 3D Design* Design Thinking: Innovation & Creation Digital Photography Fiber Art Fabrications Foundations of 2D Art Introduction to Graphic Arts & Design Mixed Media: Transformation & Imagination Mixed Media: Connections with the Real World Studio Art I: Foundations of Studio Art Studio Art II: Advanced Topics in Studio Art Wearable Art: Connections to CID* Wearable Art: Pattern to Precious Metal Clay Acting I Acting II Devised Theatre* Scriptwriting: Building a World Topics in Theatre	Chorus Inst. Ensemble Fundamentals of Singing* History of African-American Music from Spirituals to Hip-Hop Music: Introduction to Theory and Composition Music: Theory & Composition II Musical Theatre World Music Drumming Art and Activism 3D Design* Design Thinking: Innovation & Creation Digital Photography Fiber Art Fabrications Introduction to Graphic Arts & Design Mixed Media: Transformation & Imagination Mixed Media: Connections with the Real World Studio Art I: Foundations of Studio Art Studio Art II: Advanced Topics in Studio Art Wearable Art: Connections to CID* Wearable Art: Pattern to Precious Metal Clay Woodworking Acting I Acting II Devised Theatre* Scriptwriting: Building a World Topics in Theatre

ARTS

* Not offered in the 2024-2025 school year

Courses marked with # are not yet approved by the NCAA eligibility center as core courses for Division I or II college eligibility.

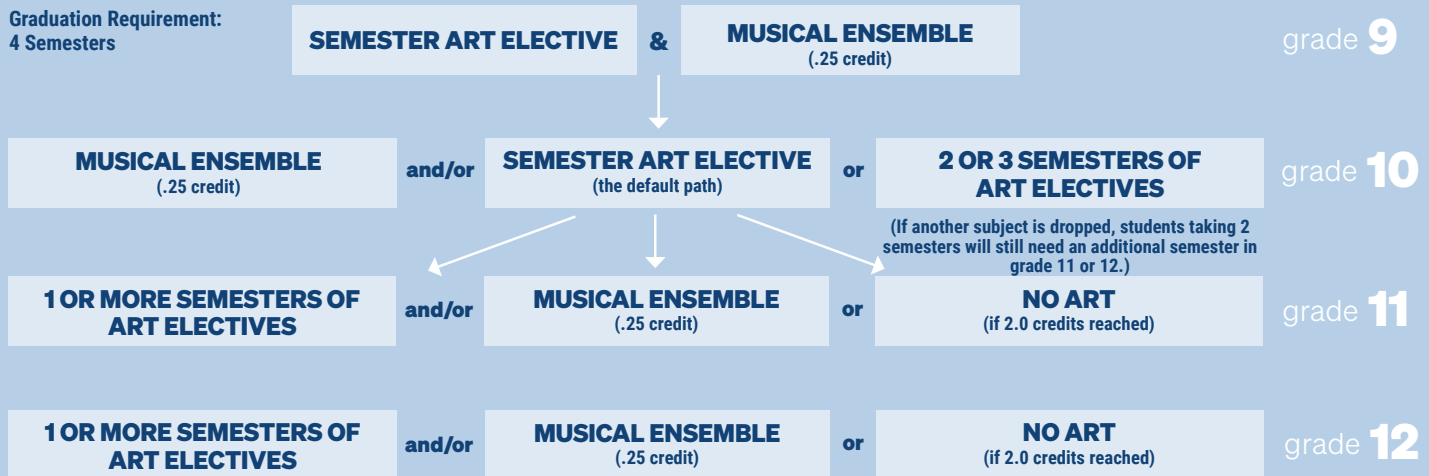
ENGLISH	GRADE 9	GRADE 10	GRADE 11	GRADE 12
	ENGLISH I The Journey Begins: Becoming Ourselves <i>(required)</i>	ENGLISH II In Pursuit of Justice: The Self in the World <i>(required)</i>	ENGLISH III Literature of the United States: Negotiating Identity <i>(required)</i> Semester Seminars <i>(required)</i> Writers' Workshop Adv	ENGLISH IV Gods and Monsters: What Does It Mean to Be Human? <i>(required)</i> Semester Seminars <i>(required)</i> Writers' Workshop Adv
HISTORY	Religions & Revolutions <i>(required)</i>	Contemporary Global History <i>(recommended but not required)</i>	U.S. History <i>(required)</i> Capitalism & Consumption Intro. to Philosophy International Relations Modern Chinese History Women's History in the United States* The Sociological Imagination: Race, Class, and Gender in an Unequal World	Modern European History Seminar Adv. Capitalism & Consumption Creating Africa Adv. Intro. to Philosophy International Relations Modern Chinese History Modern Africa Adv. Women's History in the United States* Philadelphia Black History from Reconstruction to the Present Constitutional Identity Adv. The Sociological Imagination: Race, Class & Gender in an Unequal World
MATHEMATICS	Algebra I Geometry Geometry Adv. Algebra II Algebra II Adv. Precalculus Adv. Calculus I Adv.	Geometry Geometry Adv. Algebra II Algebra II Adv. Precalculus Precalculus Adv. Calculus I Adv.	Algebra II Algebra II Adv. Precalculus Precalculus Adv. Calculus Calculus I Adv. Calculus II Adv. Statistics Statistics Adv. Intro. to Economics#	Precalculus Precalculus Adv. Calculus Calculus I Adv. Calculus II Adv. Statistics Statistics Adv. Intro. to Economics# Linear Algebra Adv. Multivariable Calculus

* Not offered in the 2024-2025 school year

Courses marked with # are not yet approved by the NCAA eligibility center as core courses for Division I or II college eligibility.

	GRADE 9	GRADE 10	GRADE 11	GRADE 12
SCIENCE	Physics I	Physics I Chemistry I Chemistry I Adv. Physics II Adv.	Biology I Biology I Adv. Chemistry I Chemistry I Adv. Chemistry II Adv.: Equilibrium Chemistry II Adv.: Kinetics and Electrochemistry Advanced Topics in Organic Chemistry Experiential Physics Physics II Adv. Physics III Adv. Electricity and Circuits Physics III Adv.: Magnetism and Waves	Biology I Biology I Adv. Biology II Adv. Biodiversity Biology II Adv.: Designing Experiments in Microbiology Chemistry I Chemistry I Adv. Chemistry II Adv.: Equilibrium Chemistry II Adv.: Kinetics and Electrochemistry Advanced Topics in Organic Chemistry Experiential Physics Physics II Adv. Physics III Adv.: Electricity and Circuits Physics III Adv.: Magnetism and Waves Physics: Mechanics Astronomy Botany Biology of Bodies Atmospheric Science & Climate Change
WORLD LANGUAGES	Chinese (Mandarin) French Latin Spanish	Chinese (Mandarin) French Latin Spanish	Chinese (Mandarin) French Latin Spanish	Chinese (Mandarin) French Latin Spanish
NON-DEPT. COURSES	Introduction to Computer Programming	Introduction to Computer Programming	Introduction to Computer Programming Introduction to Computer Hardware Advanced Computer Science	Introduction to Computer Programming Introduction to Computer Hardware Advanced Computer Science
WELLNESS COURSE (REQUIRED)	Quaker School Life (required) Human Sexuality (required)	Health (required)		

ARTS



Art is a universal language of expression offering unique views into society, history, and the human condition. At Friends' Central, we believe the arts have the power to inspire change both internally and externally. The diverse visual and performing arts courses and co-curricular activities that we offer provide students with the tools necessary to understand what they experience, express themselves, and make informed decisions. Through an exploration of traditional and new media, including digital technologies and the Makerspace, students explore design thinking in personal and collaborative projects. Visual arts offerings in an assortment of mediums and styles range from applied arts to fine arts. Music offerings provide opportunities for students to listen to, create, and/or perform. The drama program includes both modern and classical instruction, and all students are invited to participate either onstage or behind the scenes in any of the three plays produced each year.

We teach students to respond to and appreciate the arts from a range of cultures while providing opportunities to exercise their own creativity. We encourage every student to discover their individual artistic voice and to collaborate within performing ensembles to further the acquisition of skills while honing critical thinking. From their interactive arts experiences both in and out of the classroom, students emerge confident, capable, curious, well-rounded, and expressive.

FCS graduation requirements include two years of art courses. Course offerings provide a high degree of flexibility in both selection and sequence. Students often begin to fulfill these requirements in ninth grade, and many elect to surpass the requirement.

In addition to the offerings listed, students are exposed to additional art-related experiences including visiting performance art centers and collaborating with the vibrant array of arts in Philadelphia. Students can also showcase their talents throughout the year both on and off campus.





ENSEMBLES

CHORUS (*credit and non-credit options*)

The Chorus is a mixed-voice ensemble that meets during the school day twice a rotation and is open to anyone interested in singing in a group setting. No audition is necessary. The Chorus performs in two concerts a year and also sings for various community events. Repertoire is varied and represents music in several languages and from different periods and styles. Development of vocal technique and choral discipline is a part of the rehearsal process. Students may elect to receive .25 credit for participation in chorus for a full year. Please note, while it is possible to earn more, a maximum of one credit can go towards fulfilling the two-credit art requirement through music ensembles.

VOCAL GROUPS (*not for credit*)

In addition to the choral experience, there are two smaller vocal groups open to singers from the Chorus who are interested in pursuing a more challenging repertoire. Participation in these groups is by audition. They are listed below:

GRACE NOTES

Open by audition to all sopranos and altos in US Chorus, the Grace Notes sing music from a variety of genres, including traditional choral, compositions from non-Western traditions, and contemporary a cappella. They perform independently at school concerts and at other community events throughout the school year, including Singing Valentines and the Main Line A Cappella Sing-Off. Student leaders within Grace Notes help to choose and arrange songs for the ensemble, which is largely student conducted.

FOXTONES

Open by audition to all tenors and basses in US Chorus, the Foxtones sing music from a variety of genres, including traditional choral, barbershop, compositions from non-Western traditions, and contemporary a cappella. They perform independently at school concerts and at other community events throughout the school year, including Singing Valentines and the Main Line A Cappella Sing-Off. Student leaders within Foxtones help to choose and arrange songs for the ensemble, and the ensemble is largely student conducted.

INSTRUMENTAL ENSEMBLES

Upper School instrumentalists may participate in the jazz ensemble, orchestra, chamber music ensemble, and solo recitals. Private instruction is also offered. The jazz ensemble requires an audition before participating. Each of these ensembles explores a wide variety of repertoire from each tradition. Students may elect to receive .25 credit for participation in orchestra or jazz ensemble for a full year. They can earn more than one credit total over the course of their time at FCS and are always welcome to surpass requirements, but a maximum of one credit can be earned towards the two credit art requirement through music ensembles.

ART ELECTIVES

MUSIC

MUSICAL THEATRE (*fall or spring semester*)

This course will present an overview of American musical theatre, highlighting the lives and careers of prominent musical theatre composers, lyricists, producers, directors, and chore-



ographers. Students will not only learn the historical contexts of composers and their works, but will also study and present historically and/or culturally significant songs (through performance and/or research presentation). This course is open to students in grades 10-12 and fulfills one semester of the four-semester arts requirement.

HISTORY OF AFRICAN-AMERICAN MUSIC FROM SPIRITUALS TO HIP-HOP (fall or spring semester)

This course will give each student an introduction to the major styles and genres that have defined black music in America. We will begin with a musical and historical investigation of work songs and spirituals, making our way through ragtime, jazz, blues, R&B, and hip-hop. Students will learn about the broader cultural significance of this music, as well as its influence on Classical composers and innovators in the rock and roll and pop genres. This course is open to students in grades 10-12 and fulfills one semester of the four-semester arts requirement.

MUSIC: INTRODUCTION TO THEORY AND COMPOSITION (fall or spring semester)

This course introduces students to the basics of reading and writing music, directly applying concepts learned to the creation of music compositions. Students will work on computers and learn to use music composition software/web-based programs such as Noteflight and Soundtrap. Topics include – but are not limited to – reading and writing in treble and bass clefs, rhythmic and melodic notation, major and minor scales and keys, pentatonic, whole tone, and chromatic scales, modes, intervals, triads, and solfege/sight reading. Each unit includes hands-on composition practice, playback, and critique by peers and the teacher. This course is open to students in grades 9-12 and fulfills one semester of the four-semester arts requirement.

MUSIC: THEORY & COMPOSITION II (fall or spring semester)

In this course, students continue their development of music theory and composition skills through daily hands-on practice in a workshop context. Students will work on computers and continue to develop their facility with music composition software/web-based programs such as Noteflight and Soundtrap. Through score reading and analysis, rhythmic and melodic dictation, sight reading practice, solfege exercises, and composition, students will continue to develop

their music reading and writing skills. Students will explore project-based units that cover a range of musical genres and concepts, including minimalism, impressionism, arranging for specific voices/instruments, creating a musical work inspired by a piece of visual art, and scoring for a short film or video game. Specific music theory topics include: a review of scales and keys, modes, intervals and triads, chord progressions, the basics of four-part writing, Roman numeral analysis and figured bass. Students are encouraged to create music shaped by their unique background and musical point of view, including an individually designed final project. This course is open to students in grades 10-12 and fulfills one semester of the four-semester arts requirement.



WORLD MUSIC DRUMMING (fall or spring semester)

In World Music Drumming, students will practice ensemble drumming while studying musical traditions from cultures around the world (including, but not limited to, music from the Caribbean, South America, Africa, Asia, and various European folk music traditions). Students of any musical background and all levels of experience are welcome. Students will develop both musical skills (reading musical notation, basic technique on a variety of world percussion instruments, musical improvisation and composition), and non-musical skills (listening, collaborating, reflecting). Through our musical journeys, students will also investigate correlations between patterns found in music, art, dance, literature, and society of the cultures they explore. This course is open to students in grades 10-12 and fulfills one semester of the four-semester arts requirement.

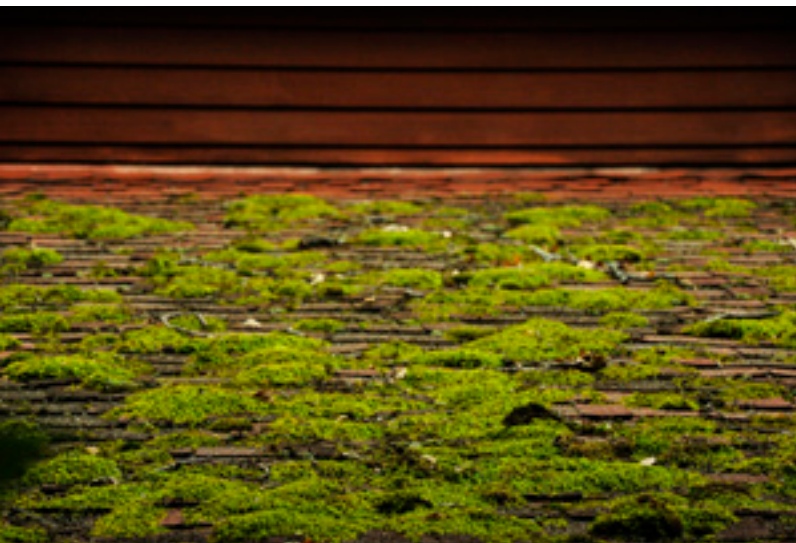


VISUAL ARTS

DESIGN THINKING: INNOVATION & CREATION

(spring semester)

In this project-based STEAM course, students will learn to design, build, and present models and solutions that develop their empathy, encourage ideation, teamwork, and metacognitive awareness. Students will utilize the process of Design Thinking which is an interdisciplinary, human-centered, collaborative, and iterative methodology of innovation. Working with their peers, students will determine the unique needs of an identified audience, conceptualize ideas, and develop rapid prototypes as possible solutions. They will then test and improve their prototypes into three-dimensional models guided by aesthetics, research, divergent thinking, computer design, graphic design, and hands-on building. Additionally, students will practice giving compelling in-person presentations of their creations while considering the form and function of their final carefully constructed products. This course is open to students in grades 10-12 and fulfills one semester of the four-semester arts requirement.



DIGITAL PHOTOGRAPHY *(full year)*

This course covers the fundamentals of photography. From cyanotypes to Photoshop, various techniques through the history of photography will be examined, with an emphasis on modern digital photography. Through a range of assignments, topics such as motion, composition, lighting, and color will be studied; and photographic genres, such as portraiture and narrative, will be explored. The first semester fo-

cuses on mastering the technical side of the medium while developing a creative vision, all the while taking interesting photographs. The second semester builds on the previous semester and allows students more opportunities for expanded creativity in terms of the projects and post-production. Class discussions will include group critiques of projects and the introduction of the works of noted photographers. Students are expected to provide their own digital camera, which must have the capability of manually controlling features, such as aperture, shutter speed, ISO, and white balance. This course is open to students in grades 11-12 or with permission of the instructor and fulfills two semesters of the four-semester arts requirement.



FIBER ART FABRICATIONS *(fall or spring semesters)*

In this process-based course, we will explore textiles as an art medium. We will create with fiber from among a variety of selected techniques: basketry, clay+coil, natural dye, wool-felt, crochet, knit, paper-maché, embroidery, or weave. Fibrous materials will be fabricated into 2D and 3D projects that may include: wall art, a stitch booklet, vessels, wearable, utilitarian, or collaborative site-installation pieces. Researching fiber, - cultures and artists through textiles from around the world – contemporary, as well as historic – will inspire individual projects and awareness. The testimony of 'stew-ART-ship' will include the transformation of recyclables into fibrous pieces. The growth from concept to final project will be reflected in pieces created from: techniques, research, and outcomes where mindfulness is inherent in the process.



The results will be visual, fiber art statements or functional pieces for the body or home, where each creative voice is encouraged as artistic self expression. Discovering, creating, and reflecting will guide our daily process. This course is open to students in grades 10-12 and fulfills one semester of the four-semester arts requirement.

FOUNDATIONS OF 2D ART (fall & spring semesters)

This course introduces students to 2D art through a variety of mediums and processes which could include: perspective, observational drawing, collage, graphic design, and digital imaging. The fundamentals of design principles: form, composition, line, shape, value, texture and content will be explored in a studio-based practice. Subject matter will range from realism to abstraction. Creative and critical thinking, visual problem solving, digital drawing, and technique will also be explored. This course is open to students in grades 9-10 and fulfills one semester of the four-semester arts requirement.

ART & ACTIVISM (fall semester)

In this one-semester topics course, students will look at the history of art through the lens of social change. From the French Revolution and early democratic movements of the 18th century through the 19th century labor movement to



the civil rights, anti-war, and global anti-colonial movements of the 1960's and 70's – every period of social upheaval and progress has drawn power, strength, and messaging from artists and artworks of the times. The energy and purpose of those movements and world events has also contributed back to the history of art. The primary focus of the course will be looking at that exchange of imagery and ideas, but students will also be looking at how imagery, propaganda, and information networks affect the power of that imagery – historically and currently. If safe, students can also expect three out of the classroom field trip opportunities to be an experience of artworks in context and some experiential making opportunities to give voice to their own interests and beliefs through imagery. This course is open to students in grades 10-12 and fulfills one semester of the four-semester arts requirement.

INTRODUCTION TO GRAPHIC ARTS AND DESIGN (fall or spring semester)

In this course, students will be introduced to a survey of the graphic arts. Topics will include foundational graphic design subjects such as typography, composition, and the relationship between text and image. Students will gain experience in a variety of different making methods, from screen printing and linocut to digital designs printed with the laser cutter in our Center for Innovation and Design. In addition to gaining experience with multiple processes, students will also get to work with different materials, designing prints for textiles, paper, and public spaces. This course is open to experienced or beginning artists in grades 10-12 and fulfills one semester of the four semester arts requirement.



MIXED MEDIA:

CONNECTIONS WITH THE REAL WORLD (fall semester)

Mixed Media: Connections with the Real World is a studio art course that explores a number of media, concepts, and styles of abstraction. Strictly speaking, the word “abstract” means to separate, remove or change the characteristics of something, and students in Mixed Media will do all this and more. Students will begin the semester taking inspiration from and challenging how they see our world, and before the semester is over, they will make abstract items that can serve a practical function in this same world. Students will be presented with a variety of projects, procedures, and opportunities for artistic expression, invention, and imagination ranging from photographic scavenger hunts to digital manipulation on the computer, painting, clay, and tiles created with the assistance of the laser cutter in the CID. The majority of class time will be spent producing art, although there will also be demonstrations and critiques. This course is open to students in grades 10-12 and fulfills one semester of the four-semester arts requirement.

MIXED MEDIA:

TRANSFORMATION & IMAGINATION (spring semester)

Mixed Media: Transformation & Imagination is a studio art course that explores a number of media, concepts, and styles of abstraction where the goal is not to accurately represent subjects in the real world. Everyday items will be recontextualized and repurposed, while images initially devised by others will be transformed and used as inspiration along with students’ individual creative vision, all within the artmaking process. Over the course of the semester students will be presented with a variety of procedures, and opportunities for artistic expression and invention ranging from projects that involve pouring paint to digital collage on computers through Photoshop. There will also be multiple projects that involve the CID as part of the artmaking journey. The majority of class time will be spent producing art, although there will also be demonstrations and the occasional critique. This course is open to students in grades 10-12 and fulfills one semester of the four-semester arts requirement. *Please note this replaces Mixed Media: Appropriation & Reinvention so students who have taken that course previously should not repeat the semester.*



STUDIO ART I: FOUNDATIONS OF STUDIO ART (full year)

This yearlong exploration of observational drawing and painting is designed to advance students’ technical abilities and to give them the mental skills to see in new ways. Through a combination of short studies and longer term projects, students will be presented with different conceptual and material challenges, including work in charcoal, pencil, and oil paint. Students can expect to develop a deeper understanding of how to draw convincing spaces and architectural forms, how to render objects realistically with depth, and how to draw faces and portraits with an introduction to paint and color. The class is run as a studio with lecture and instruction followed by demonstrations, practice, and individual/group critique. This course is open to students in grades 10-12 and fulfills two semesters of the four-semester arts requirement.

STUDIO ART II: ADVANCED TOPICS IN STUDIO ART (full year)

Building off of observational drawing and painting skills learned in Studio Art I, students in this course will push into more advanced material concepts with opportunities for expressive and personalized subject matter. Students can expect to learn color theory, palette knife painting techniques, self-portraiture, and advanced tonal drawing, with exposure to abstraction and experimentation in new media, including virtual reality and stop motion animation. This course fulfills two semesters of the four-semester arts requirement. *Prerequisite: Studio I or portfolio approval.*

WEARABLE ART: PATTERN TO PRECIOUS METAL CLAY (fall or spring semester)

Wearable Art: Pattern to Precious Metal Clay is a studio art course that explores a variety of media and approaches to



creating wearable art, predominantly jewelry. From beads to mandalas created on electronic devices, rastered into rubber and then pressed into clay that is fired into silver, this class will introduce students to elements of design, as well as technical and creative considerations that come into play when creating tangible items that are meant to be worn. The inspiration for projects will vary from geometric or organic inspiration to the students themselves, with the end result ranging from recognizable subjects to non-objective pieces with a functional twist. Throughout the course, students will be presented with a variety of opportunities for artistic expression, problem solving, invention, and imagination. The majority of class time will be spent producing art, although there will also be lectures/demonstrations and critiques. This course is open to experienced or beginning artists in grades 10-12 and fulfills one semester of the four semester arts requirement. Students are welcome to take either Wearable Art class or both and they may do so in any order. Please note this class runs in alternating years with Wearable Art: Connections to CID students. As this was a new combination of classes in 2023-2024 students who have taken the course titled Wearable Art previously may take Wearable Art: Connections to CID or Wearable Art: Pattern to Precious Metal Clay but not both. There will be a small lab fee to cover the cost of precious metal clay.

WOODWORKING (fall or spring semester)

This class offers an introduction to innovative design and building utilizing hand and power tools and an array of construction materials including wood, acrylic, concrete, and electrical components. Students practice safety, discipline, patience, and problem-solving skills as they engage in experiential learning.

Utilizing the Engineering Design Process (EDP) students learn traditional woodworking techniques and integrate modern technology to develop and implement their designs, while also evaluating and reflecting on their art process and project execution. Projects are scaffolded culminating in a “student choice” final project incorporating methods, techniques, and creative expression. This course fulfills one semester of the four-semester arts requirement.

THEATRE ARTS

FOUNDATIONS OF THEATRE (fall or spring semester)

This introductory level course offers a practical introduction to the elements of theatre that go into bringing a play from the page to the stage. The course provides students with the tools necessary to understand, engage with, and participate in live theatre. It includes projects that invite students to experiment with storytelling, playwriting, acting, and design. We will use a variety of classic and contemporary sources, as well as the experience of live performance, to develop our own artistic practices and a practical understanding of the spectrum of skills required to create live theatre. This class is open to students in grades 9-10 and fulfills one semester of the four-semester arts requirement.



TOPICS IN THEATRE (spring semester)

Part theatre history, part performance-based, this course will explore different modes of theatre and performance. In addition to reading and watching plays together, students will apply their understanding of the topics through hands-on



and on-your-feet activities, scene work, improvisation, script analysis, and research. Topics will rotate and could include: Greek Theatre or Shakespeare; Theatre of the Absurd, Epic Theatre, Non-Western Theatre, or Theatre for Social Change; and, Identity Theatre – African-American, Asian-American, Latinx/Hispanic, or Women's Voices. This course is open to students in grades 10-12 and fulfills one semester of the four-semester arts requirement.

ACTING I (spring semester)

This introductory acting course delves more fully into the elements of performance highlighted in the Foundations of Theatre class. The first half of the class will be dedicated to team-building through theatre games and improvisation followed by monologue and scene work. Students will leave the course having a better understanding of how to create and sustain character through gesture and action. The culminating event for this course is a showcase of students' work. This course is open to students in grades 10-12 and fulfills one semester of the four-semester arts requirement.

SCRIPTWRITING: BUILDING A WORLD (fall semester)

This class dives into the many ways scriptwriters create new, exciting worlds for actors and audiences to inhabit. The course will delve deeply into the craft of scriptwriting, providing students with the opportunity to write in various modes of script. Projects will include a sketch comedy, a one-act festival, and an audio drama podcast. Students will explore and develop skills in text analysis, imagination, and collaboration. This class is open to students in grades 10-12 and fulfills one semester of the four-semester arts requirement.

ACTING II (fall semester)

This advanced level course picks up where Acting I left off. Building on the skills acquired in Acting I, Acting II will introduce the performer to different styles of theatre. From expressionist to Brechtian, students will read plays and explore models of performance that extend beyond Stanislavsky. Students will read plays together, learn to break down scripts, and apply those script analysis skills in the creation of their characters. Interested students will also be afforded the opportunity to direct their classmates in scenes and short one-acts. The culminating event for this course is a showcase of students' work. The prerequisite for this class is Acting I or permission from the instructor. This course is open to students in grades 10-12 and fulfills one semester of the four-semester arts requirement.



ART ELECTIVES (NOT OFFERED IN 2024-2025)

MUSIC

FUNDAMENTALS OF SINGING

This semester course is designed to lay a foundation for proper vocal production through an overview of vocal anatomy, proper breath technique, vocal health, and song study. Materials studied may include vocal exercises, folk songs and spirituals, English and Italian art songs, popular contemporary songs, and selections from Broadway shows. Students will sing in class, and there will be opportunities for students who are prepared and interested in performing to do so for an audience outside of class. Students of any experience level in grades 10-12 are welcome – you just need to enjoy singing! Ability to read music is helpful but not required. This course fulfills one semester of the four-semester arts requirement.

VISUAL ARTS

3D DESIGN

In 3D Design, students explore a broad range of 2D and 3D art and design principles within a stimulating hands-on, studio-based curriculum. Analytical skills in schematic drawing, design, three dimensional forms, material craftsmanship and sculpture are covered as well as hand-building and digital techniques, all of which contribute to the development and understanding of visualizing an idea from a 2D drawing into a 3D form. A variety of media including traditional (paper & chip board construction) and digital (laser etching and 3D printing) materials will be utilized. Creative and critical



thinking, visual problem solving, and technique will be explored, and all students will participate in the formal critique process. This course is open to students in grades 10-12 and fulfills one semester of the four-semester arts requirement.

WEARABLE ART: PATTERN CONNECTIONS TO CID

Wearable Art: Connections to CID is a studio art course that explores a variety of media and approaches to creating wearable art, predominantly jewelry. From jump rings to earrings designed on the computer and cut in the CID with the laser cutter to explorations in silver, this class will introduce students to elements of design, as well as technical and creative considerations that come into play when creating tangible items that are meant to be worn. The inspiration for projects will vary from geometry to layers of patterns, and emphasis throughout the semester will be placed on creating sets of jewelry. Throughout the course, students will be presented with a variety of opportunities for artistic expression, problem solving, invention, and imagination. The majority of class time will be spent producing art, although there will also be lectures/demonstrations and critiques. This course is open to experienced or beginning artists in grades 10-12 and fulfills one semester of the four semester arts requirement. Students are

welcome to take either Wearable Art class or both and they may do so in any order. Please note this class runs in alternating years with Wearable Art: Pattern to Precious Metal Clay. As this was a new combination of classes in 2023-2024 students who have taken the course titled Wearable Art previously may take Wearable Art: Connections to CID or Wearable Art: Pattern to Precious Metal Clay but not both. There will be a small lab fee to cover the cost of precious metal clay.

THEATRE ARTS

DEVISED THEATRE

Devised theatre is a form of theatre where the script originates not from a writer or writers, but from collaborative, usually improvisatory, work by a group of people. Students in this class will form an ensemble company and will collectively explore a variety of contemporary acting and devising techniques in a lab setting. Through collaborative creation and choral work, students will create several ensemble pieces including adaptations and site-specific happenings. There will be several opportunities, including a culminating event, in which students can showcase their work. This course is open to students in grades 10-12 and fulfills one semester of the four-semester arts requirement.



ENGLISH

Graduation Requirement:
8 Semesters



The goal of the Friends' Central English program is to help students build skills and confidence as readers, writers, speakers, and thinkers. Students are equally challenged and supported in their path through our curriculum. 9th and 10th graders enroll in required yearlong English courses, while 11th and 12th graders take a required semester-long course in the fall and choose from a variety of seminar courses in the spring. The curriculum includes both canonical and contemporary texts; with feedback from students, the department curates a curriculum in which students can find both mirrors and windows, recognizing their own experiences and learning about people different from themselves. Our courses are discussion-based and collaborative, pushing students to take active roles in their own learning, and assignments are designed to deepen critical thinking abilities, hone analytic skills, and improve written and verbal communication of all kinds in a diverse and respectful setting. Students write often and in a range of forms, including journals, creative pieces, personal responses (the 10th grade curriculum includes a unit on the personal essay), and analytic pieces, with particular attention to the full-length thesis-driven essay. As good writing is an iterative process, we teach skills in invention, development, drafting, and revision, and we encourage students to revise and resubmit their work. These revisions allow students to develop both their writing and social-emotional skills related to agency, decision-making, responding to feedback, and pride in their work. We hope students will take advantage of the chance to serve as writing tutors in our Writing Lab, and we encourage them to read for pleasure and to participate in *INK* (the Friends' Central literary and arts magazine), *Focus* (Friends' Central's newspaper), and academic opportunities like the Humanities Core Team and certain senior project seminars ([see an example of a senior project seminar here](#)).



ENGLISH I (full year)

THE JOURNEY BEGINS: BECOMING OURSELVES

Students in grade 9 English study various literary genres (short stories, poems, novels, and plays). Texts largely focus on the individual's quest to come of age in a complex, morally ambiguous world. Skills in reading, thinking, and writing are taught through purposeful class discussion, performance-based, collaborative work with plays (as to study a play is to think of it as performance), and the medium of the five-paragraph analytical essay. In addition to analytical writing, students use creative writing (such as personal vignettes and poetry) and interdisciplinary skills (as with symbolic object and monument projects) to explore their values and their roles in their families and communities. Possible texts include *The Piano Lesson*, *The Catcher in the Rye*, *Homegoing*, and *Macbeth*, among others. Students also read a diverse selection of poems and short stories that have in the past included William Faulkner's "A Rose for Emily," Ken Liu's "The Paper Menagerie," and ZZ Packer's "Brownies."

[Examples of English I Student Personal Vignettes](#)

[Examples of English I Student Monument Projects](#)

ENGLISH II (full year)

IN PURSUIT OF JUSTICE: THE SELF IN THE WORLD

Grade 10 English continues the development of skills in close reading and analytic writing (with increased focus on comparative analysis) and emphasizes student-facilitated discussions. The diverse body of literature in this course spans different cultures and time periods. Texts depict stories of individuals who assert themselves against powerful and systemic forces shaped by race, class, gender, and other facets of identity. While justice is a guiding premise throughout the course, the first semester focuses primarily on tragedy and redemption, and the second semester, featuring texts with more complicated timelines, emphasizes narrative craft and structure. In conjunction with this curriculum, students study and write personal essays in which they are encouraged to craft elements of their individual voice including tone, a variety of rhetorical devices, and unique structure. Ultimately, this course prompts students to envision the world they want to inhabit. Possible texts include *In the Time of the Butterflies* (summer) *Of Mice and Men*, *Antigone*, *Things Fall Apart*, *The Interpreter of Maladies*, *The Things They Carried*, *The Tempest*, and *A Lesson Before Dying*, among others.

[Examples of English II Student Personal Essays](#)

ENGLISH III (required for fall semester)

LITERATURE OF THE UNITED STATES: NEGOTIATING IDENTITY

In grade 11 English, students hone close reading and analytical writing skills and take responsibility for leading group discussions. This course approaches literature in relation to the social and historical context from which it emerged, examining contemporary and canonical texts to note how things have both changed and not changed. Texts feature protagonists whose individual identities in the communities in which they reside are impacted by ability, gender, immigrant status, race, religion, and social class. Drawing on Audre Lorde's idea that "the master's tools will never dismantle the master's house," this course explores the ways identity is more complicated than people imagine and follows characters who try to preserve their own sense of self as they become aware of and interact with a world they do not necessarily like or understand. Supplementary psychological and sociological articles accompany the texts to help students contextualize plot events and characters' actions. Major texts include *Little Fires Everywhere* (summer), *Their Eyes Were Watching God*, *The Great Gatsby*, and *There There*.

ENGLISH IV (required for fall semester)

GODS AND MONSTERS: WHAT IS IT TO BE HUMAN?

In Grade 12 English, students examine how one constructs a genuine self in the face of contrasting messages from dominant power structures. The texts' protagonists seek purpose and meaning, fight isolation, and impose order on their experiences through the telling of their stories while they navigate a multitude of forces: biological, historical, psychological, social, familial. Questions about body autonomy and the ramifications of being considered "the other" play a central role in many texts. The course also explores how concepts like creativity and the ability to both remember the past and predict the future help define humanity. Students focus on writing across texts and breaking away from the five-paragraph format, practicing both shorter and longer forms of critical writing, and learning about different literary lenses. The course concludes with a final connections project in which students chart their own path through the curriculum. Major texts include *Klara and the Sun* (summer), *Frankenstein*, *Beloved*, and *Hamlet*.

[Examples of English IV Student Connections Projects](#)



ENGLISH ELECTIVE

WRITERS' WORKSHOP ADVANCED

This advanced elective course is offered in two semesters. Students may take both or choose either semester. The course is intended for those who wish to concentrate collaboratively and in depth on the craft, purpose, and power of writing, moving beyond the skills developed in the core English curriculum.

Each student keeps a writer's notebook (journal) which forms the foundation for the course, and class time is often spent on writing activities. Students develop and revise several longer pieces each semester with the support of the class; in the final weeks of each semester, students work on independent projects within a more traditional workshop format. Such pieces in the past have included multimedia forms (songs, films, visual art) that incorporate text, as well as collections of poetry or short stories, memoir, and extended essays. A portfolio of work produced during the class, along with the writer's notebook and engagement with the workshop format of the class, forms the basis for grading. The course is open to students in grades 11 and 12 and does not fulfill graduation requirements in English.

[Examples of Student Writers' Workshop Pieces](#)

WRITERS' WORKSHOP ADVANCED:

ESSAY AND MEMOIR (*fall semester*)

In the fall semester (Essay and Memoir) students analyze classic pieces like Martin Luther King Jr's *Letter from Birmingham Jail* and Maxine Hong Kingston's *No Name Woman* and apply what they learn to their own personal writing, argument, and opinion writing.

WRITERS' WORKSHOP ADVANCED:

CREATIVE WRITING (*spring semester*)

In the spring (Creative Writing), a number of texts read in the core English courses are reframed as mentor texts for the craft of creative writing. Beyond these foundational texts, the curriculum is flexible and varied, largely co-created by the instructor and students and focused on contemporary readings in both semesters.

ENGLISH SPRING SEMINARS

*In the second semester, students in grades 11 and 12 select a Semester Seminar. These classes, focused on particular themes or genres, give students a chance to explore an aspect of literature in depth. All seminars begin with shared study of a text selected by the English department as a whole; shared texts rotate and include Tony Kushner's *Angels in America*, Moshin Hamid's *Exit West*, and others.*

MODERN TO CONTEMPORARY

BLACK AMERICAN STORIES

This course uses the frame of Afrofuturism as a lens through which to see stories of Americans with African heritage. Students will study texts from a variety of genres in order to consider the black American experience from many angles. Guiding queries include:

- What does it mean to privilege black voices? How does this challenge the hegemony?
- When and how do we label or name racial groups? What does it mean to identify as black?
- How do we have healthy conversations about race in multiracial settings?
- What is the role of storytelling in the black experience/history?

Possible texts: *Between the World and Me* by Ta-Nehisi Coates; *Passing* by Nella Larsen; *Citizen* by Claudia Rankine; Essays of James Baldwin; "Bloodchild" by Octavia Butler; *Song of Solomon* by Toni Morrison; *The Color Purple* by Alice Walker; *Fences* by August Wilson; *for colored girls who considered suicide/when the rainbow is enuf* by Ntozake Shange; *Kill Move Paradise* by James Ijames; *A Raisin in the Sun* by Lorraine Hansberry; poetry of Gregory Pardlo, Natasha Trethewey, Claude McKay, Terrance Hayes, Langston Hughes, James McBride, Richard Wright, Gwendolyn Brooks, Rita Dove; films include *Get Out* directed by Jordan Peele and *Moonlight* directed by Barry Jenkins.

CATASTROPHES OF THE NEAR FUTURE:

SPECULATIVE FICTION

An extraordinarily fertile and expansive artistic territory, fiction is a limitless field. Speculative fiction, the particular area of study for this class, uses somewhat recognizable settings and tropes to reveal difficult truths and potential solutions to problems we face today or may face tomorrow. Writer Margaret Atwood believes "speculative fiction" refers to



stories about things that really could happen but just hadn't completely happened when the authors wrote the texts. This course will look to see what this type of literature has to teach us about ourselves and our world.

Possible texts: Mandel's *Station Eleven*, Ishiguro's *Never Let Me Go*, Dick's *Do Androids Dream of Electric Sheep?*, and stories by writers such as Borges, Link, Millhauser, Butler, Hand, and Vonnegut. We may also look to film (*Blade Runner*) and television (*Black Mirror*) for other compelling speculative stories.

SKEPTICISM AND SPIRITUALITY

What are we modern humans to do with the persistent impulse toward belief in God and in a spiritual dimension to life? Why do such thoughts arise, and what wisdom can be gained in the investigation of our doubts? In this course, we grapple with the notions of religious and spiritual faith, studying the works of "believers," as well as the theologically rebellious "doubting Thomases" of the literary world. Along the way, students will actively investigate and articulate their own beliefs in relation to the ideas presented in the literature. We will cultivate a compassionate community that honors every learner's perspective as we encounter ideas and beliefs in degrees of agreement or of conflict with our own. Our ultimate goal is to broaden our spiritual vocabulary and our understanding of what it means to be spiritual. Past or current religious affiliation or spiritual practice is not required.

Selected texts may include: *The Book of Job*, *Go Tell It on the Mountain* (Baldwin), *Nausea* (Sartre), *Siddhartha* (Hesse), *Wise Blood* (O'Connor), as well as poetry by Blake, Dickinson, Donne, Gibran, Hopkins, Larkin, Neruda, Plath, Rumi, Whitman, and Wright

HAUNTED HOUSES AND GHOST STORIES

Haunted houses are the stuff of legends, and ghosts are the ultimate metaphors. We understand the conventions of Gothic literature without thinking about them – old houses, hidden spaces, ghosts, crimes, darkness, family curses, and mystery. In this course, we will examine works through the lens of the Gothic genre and how the supernatural in fiction can reflect aspects of real life. We will think about how houses can become characters and how even the suggestion of a ghost can shift reality for characters. While the Gothic genre originated often by exoticizing or othering people from outside of western Europe, BIPOC authors have taken

the genre and turned it on its head to explore the concept of otherness. We will also look at the texts with attention to feminist readings as the genre frequently features women as protagonists. Possible texts include *Rebecca* by Daphne du Maurier, *Jane Eyre* by Charlotte Bronte, *Wuthering Heights* by Emily Bronte, *The Haunting of Hill House* by Shirley Jackson, *Mexican Gothic* by Silvia Moreno-Garcia, *The Bluest Eye* by Toni Morrison, "The Fall of the House of Usher" by Edgar Allan Poe, "The Yellow Wallpaper" by Charlotte Perkins Gilman, and ghost stories by Edith Wharton

ASIAN AMERICAN LITERATURE

Towards the end of Charles Yu's award-winning novel, *Interior Chinatown*, a character challenges us to consider why he doesn't "register as American," wondering whether it's because his story is "too complicated," making it hard to discern "whether it's a tragedy or a comedy or something in between." In this course, we will consider a diverse sampling of the work of Asian American authors who address these and related questions. We will cover as many genres and perspectives as we can in this broad and varied literary landscape. *Interior Chinatown* will be a core text for us. Other possible works from this rich literature for our study include Maxine Hong Kingston's *Woman Warrior*, Ocean Vuong's *On Earth We're Briefly Gorgeous*, *The Refugees* by Viet Thanh Nguyen, *The Thousand Crimes of Ming Tsu* by Tom Lin, the graphic novel *American Born Chinese* by Gene Luen Yang, and the plays *The Great Leap* by Lauren Yee and *M Butterfly* by David Henry Hwang.

A FAIRER HOUSE THAN PROSE: EXPLORING POETRY

In this course, students will learn to read poetry by first gaining an understanding of how poetry differs from prose. Students will gain proficiency with formal and musical elements such as meter, rhyme, consonance, assonance, repetition, stanza structure, caesurae, and a variety of standard forms such as sonnets and villanelles. Close reading of the poems will reveal how imagery and figurative language enhance the ideas of the poems. The course will present some poems as part of a tradition of poetic ideas, odes or love poems, for instance, but will also read several collections of poetry to explore how studying a body of work differs from looking at a poem in isolation.

Possible texts: *Citizen: An American Lyric* by Claudia Rankine and *Night Sky with Exit Wounds* by Ocean Vuong. Addition-



ally, new collections of poetry may be chosen because they recently won prominent awards such as the Pulitzer Prize or the National Book Award.

CRIME STORIES

Around the world, different communities have different folkways, including particular methods of dealing with crime and meting out justice. In this course, we will take a close, hard look at everything from the causes of crime to the ways in which those affected by such activities, either as victims or victimizers, are changed by the experience. We will also consider crime as a powerful influence in and on communities across the world. Our study will begin with Truman Capote's masterpiece, *In Cold Blood*, which he referred to as a "nonfiction novel"; others have called it a work of "faction" or, perhaps most helpfully, "creative nonfiction." Set in bucolic Holcomb, Kansas, this is an exacting account of the brutal killings of an All-American family and the many lives changed by that horrific crime. Other texts studied in this course may include *Winter's Bone*, *Chronicle of a Death Foretold*, *A Burning*, *The Glass Hotel*, and *Always Outnumbered, Always Outgunned*, among others. As we are always looking for new ways of seeing and undersanding, we may also examine crime stories through podcasts, journalism, film, and television.

GAME THEORY: SPORTS LITERATURE

This course is for any student who has ever been emotionally overcome by the drama of a championship game, fascinated by the inside story about a team, drawn to contemplate both the poetry of an athlete at his or her peak and the tragedy of another whose talent and life unravels before us. What is the nature of this interest? What does sport provide us with besides the obvious clichéd metaphors? Great writers have contemplated the intersections between art and sport since ancient times and have produced some remarkable works of literature in every genre as a result. We will look briefly at this tradition and introduce some of the central themes that continue to arise. We will then investigate the particularly American obsession with sport, and examine the reflection that athletes have provided us of our own social and cultural concerns, with specific emphasis on the impact of athletics on matters of race and gender. Possible texts: *The Last Shot* by Darcy Frey, *Shoeless Joe* by W. P. Kinsella, and *Beartown* by Fredrik Backman

THE STORY'S THE THING:

FINDING OURSELVES IN STORIES

Correcting Hamlet's claim that "the play's the thing," the story, in all its forms and functions, is the cornerstone of any society. Still, Hamlet gets partial credit as a play is, as we will discover through our work with *Angels in America*, a particular type of storytelling with many similarities to the best short stories. You may recall, if you were at FCS in grade 9, your early classroom work with short fiction. Then, the stories were used as means of introducing you to the elements of storytelling and some of the themes you would be grappling with in English 1. Two or three years on, you are now ready for more complex and subtle narratives, tales that tackle complex themes in complex ways. While we will focus mostly on North American short fiction written in the last 50 years, we will be supported in these efforts by writers from other countries and cultures. We will reflect on the stories both as singular works of art and as part of a broad and lively conversation. The stories we will read, reflect on, and talk about together "proceed with the conviction" – to quote Rosellen Brown from the introduction to our anthology – "that their means and ends are inseparable, and they take chances" (xv).

EXPLAINING MYSELF TO MYSELF:

CONTEMPORARY AMERICAN MEMOIR BY WOMEN

This course focuses on memoir, the exploration of a significant – even defining – period in the life of a writer, as understood by herself. What does it mean to be an American woman coming of age in the society we share? The women whose works we read examine and recount their experiences from a variety of perspectives: as anthropologists, detectives, artists, psychologists, and historians. As they also tell their stories in many different ways, we will focus on the relationship between form and content. We approach memoir from the perspective of both readers and writers, writing our own stories as well as analyzing and responding to the memoirs we study. The course begins with excerpts from influential 20C American memoirs, including Susanna Kaysen's *Girl, Interrupted*, Maxine Hong Kingston's *The Woman Warrior*, and Lucy Grealy's essay *Mirrorings*. Full-length memoirs include Tara Westover's *Educated*, Natasha Tretheway's *Memorial Drive*, and Michelle Zauner's *Crying in H Mart*.



THE GRAPHIC NOVEL

In the past few years, the graphic novel has drawn increasing attention in English classrooms. Once thought to be only for geeks, artists, or reluctant readers, this genre has become a powerful method for telling all kinds of stories. In blending the mediums of writing and artwork, graphic novels offer a literary experience that is ripe for analysis. In this class, we will study the graphic novel as a tool for sharing memoir, myth and superheroes, socio-political commentary, and classic literature. Some works will be taught alongside excerpts of their prose versions, others will be taught solely in graphic novel form. Possible texts include *American Born Chinese*, *Watchmen*, *Persepolis*, *The Best We Could Do*, *Macbeth*, and *City of Glass*.

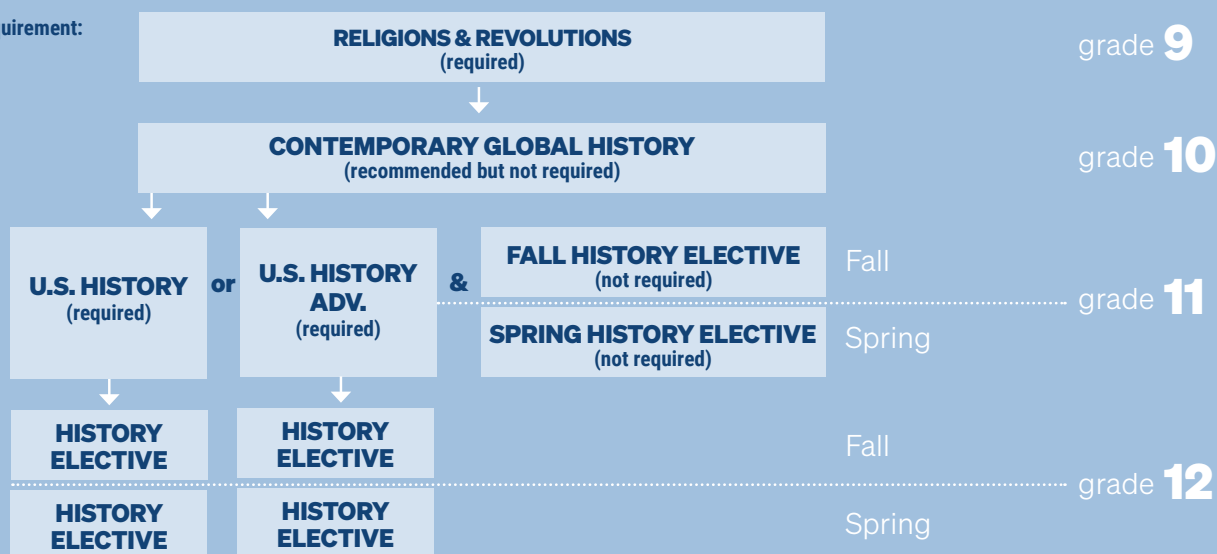
LITERATURE OF THE HOLOCAUST

This course will examine literature written during the Holocaust and about the Holocaust. We will see how historical accounts, fictional stories, essays, poetry, and even children's books can be used as tools for survival, revolution, and remembering. While not a comprehensive study of the Holocaust, this class will include historical information, discussions of the continuing impact of the Holocaust, and how the literature of the Holocaust draws from and influences other literature. Possible texts include *The Men with the Pink Triangle* by Heinz Heger, *The Shawl* by Cynthia Ozick, *The Sunflower: On the Possibilities and Limits of Forgiveness* by Simon Wiesenthal, *This Way for the Gas, Ladies and Gentlemen* by Tadeusz Borowski, and *Maus* by Art Spiegelman.



HISTORY

Graduation Requirement:
4 Semesters



An appreciation of historical context is central to understanding the world around us. Our study of history is an exploration of human experience; the ways diverse peoples have differed in their ideas, institutions and cultural practices, the ways experiences vary by period and nationality and social circumstances, and the ways people(s) have struggled with each other. We ask our students to make connections between the past and the world they now inhabit and to ponder the question – How did we get this way?

All Upper School students take Religions and Revolutions in grade 9 and U.S. History in grade 11. Most students also take Contemporary Global History in grade 10, and virtually all take a history elective in grade 12. See below for a listing of our broad range of electives. Our history courses emphasize the analysis of primary sources in the development of critical thinking and original argument. Grade 11 students complete a capstone, primary source-based piece of original research as part of the U.S. History course.

Interested students may also join clubs such as Model United Nations, History Bowl, World Affairs Council, the Debate Team, and Mock Trial, where knowledge and a deep understanding of the origins of current events is essential.

RELIGIONS AND REVOLUTIONS (required)

This course introduces students to the Upper School history curriculum. First, we address Chinese philosophies, Hinduism, Buddhism, Judaism, Christianity, and Islam. We then examine periods in history covering themes, ideas, and movements beginning with the Reformation in the 16th century and ending in the late 19th century. Themes include: the Scientific Revolution, the Enlightenment, the Atlantic revolutions, industrialization, class and gender, along with 19th century movements such as nationalism, liberalism, and imperialism. The course emphasizes analytical reading and

writing and the analysis of primary sources. In addition to traditional quizzes, tests and writing exercises, students will complete two research projects. They will also participate in a conflict resolution role-play exercise and a character project where they use their research skills to play a historical character. *This course is required for all grade 9 students.*

CONTEMPORARY GLOBAL HISTORY (recommended but not required)

To understand the present and contemplate the future, it is essential that we attempt to discover what caused the world to be the way it is today. This course covers events and ideas from the last 100 years that have shaped the world we live



in now. Students will examine the 20th and 21st centuries closely as they begin doing more of their own analysis of primary sources and practice looking at events through particular historical lenses. Students will study social and political movements of the century, such as nationalism, communism, feminism, and environmentalism. They will learn some of the basics of micro and macroeconomics, along with studying major 20th century events, such as World Wars, ensuing treaties, and the changing face of the world during and after the Cold War. In addition to written sources, examples of 20th century art, architecture, and film are viewed as historical artifacts. Scheduled current events days help students make connections between the past and the present. Six historical role plays flesh out the dynamics of international issues. Students will improve their argumentative and persuasive writing, as well as their online research skills, with historical databases offered through the Blackburn Library. The themes of conflict resolution, civil disobedience, and reconciliation permeate the entire course. *Though this course is not required, it can be helpful in preparing students for the grade 11 course while also providing engaging opportunities for students to connect events from the recent past with current situations.*

UNITED STATES HISTORY ADVANCED (required)

The objectives of this faster-paced course include exposing students to a wide range of primary sources relating to U.S. history, giving them an opportunity to work directly with the sources, sharpening their communication skills – both oral and written – and improving their ability to see the present in terms of the past. Students will be able to work with the sources with depth on initial contact, requiring little support before they can offer sound interpretations. The course encompasses the period from the early colonization by England in the 17th century to the beginning of the 21st century. Particular emphasis is placed on the Constitution in the latter part of the fall. The middle of the course surveys the 19th century from the election of Jefferson in 1800 to the Progressive Era. The final study covers a series of units on 20th century topics, among them, the World Wars, the Depression, the Civil Rights Era, the Cold War, and Feminism. During the second half of the year, each student works on a primary source-based, thesis-driven research project beginning in January with topic selection and continuing to the beginning of May when final drafts of the papers are due. *Placement in this course is based on students' performance in previous history courses along with an in-class writing exercise and departmental approval.*

UNITED STATES HISTORY (required)

The objectives of this course include exposing students to a range of primary sources relating to U.S. history, helping them learn to decode the meaning of the sources and moving into more analytical interpretations of them. Students will also sharpen their communication skills – both oral and written – and improve their ability to see the present in terms of the past. The course encompasses the period from the early colonization by England in the 17th century to the beginning of the 21st century. Particular emphasis is placed on the Constitution in the latter part of the fall. The middle of the course surveys the 19th century from the election of Jefferson in 1800 to the Progressive Era. The final study covers a series of units on 20th century topics, among them, the World Wars, the Depression, the Civil Rights Era, the Cold War, and Feminism. Throughout the year students will build their analytical writing skills. During the second half of the year, students will do a directed research project. *This course or U.S. History Advanced is required for all grade 11 students.*

HISTORY ELECTIVE COURSES

(most are open to grade 11, and all are open to grade 12)

With the exception of Modern European History Seminar Advanced, all history electives are one semester long. To take an advanced history course, students' performance in previous history courses (especially grade 11) will be considered, along with an in-class writing exercise and departmental approval. Advanced electives are for grade 12 students only.

CAPITALISM AND CONSUMPTION:

"GETTING AND SPENDING" (spring semester)

This semester-long class looks at consumption in history: how we buy and sell, what is made for buying and selling, and what goods mean to a society. The focus is on the period since industrialization, with some emphasis on the contemporary United States. Readings, discussions, and written assignments will cover topics like advertising, manufacturing, and the depictions of goods in literature and film. In addition, students engage in more focused individual study and research on a topic of their choice and examine their roles as shoppers and consumers.

CONSTITUTIONAL IDENTITY ADVANCED (fall semester)

This semester-long course covers the 230+ year history of the Supreme Court of the United States and its role in shaping and, ultimately, providing protections for identities in the U.S. Source material will predominantly be federal caselaw, and students will be asked to write analytical research pa-



pers regarding the Court's jurisprudence. By studying the precedent and highlighting the good and the bad of the Court's history, we aim to answer the questions: Has the Supreme Court served the U.S. citizens regarding racial, gender, and socioeconomic inequity? A foundational knowledge of the Court allows for a deeper exploration of identity politics in the United States, providing a greater perspective of the competing aims of the Court and the structures that hold up institutional bigotry.

CREATING AFRICA ADVANCED: EUROPEAN RACISM, THE DIASPORA, COLONIALISM, AND IDENTITY (fall semester)

The goal of this class is to recenter our discussion of history on Africa and Africans instead of Europe and Europeans over a long span of time. How does it change the way we see the world when we focus on the place of Africa and Africans as creators of civilization and agents of economic, social, and political change? The course will also explore the creation and development of European notions of race and racism. The class covers a very large span of time, from Classical civilizations to the emergence of the Pan African movement that linked Africa and Africans and the African diaspora community in the struggle for justice and racial equity in the 19th and 20th centuries. As an advanced course, it is reading-intensive and students will be expected to work with a broad range of information.

INTRODUCTION TO PHILOSOPHY: THE GOOD, THE TRUE, AND THE BEAUTIFUL (fall semester)

This semester-long course is a theme-based introduction to philosophy. The study of philosophy allows students to explore their own views as they encounter many of the ideas from the traditional western canon. We tackle classic questions, such as how we explain existence (ontology) and how we know anything in the first place (epistemology). We also address proof of the existence of God and of the immortality of the soul. We examine selfishness as we do a broad theoretical and practical examination of ethics. Political philosophy is examined, as well as the philosophy of art. Themes are examined historically to see how philosophers have built on each other's ideas throughout the ages. Our main text, Donald Palmer's *Does the Center Hold?* is supplemented by various writings by philosophers from ancient to modern times.

INTERNATIONAL RELATIONS (fall semester)

It is critical to understand how the world works. This international relations course introduces the core theories of

the discipline. To make these theories less abstract and divorced from the way the world actually operates, students spend 8-10 weeks playing an in-depth online roleplay called Statecraft. The whole class is transported to an online world where students are grouped into countries and take on the roles of world leaders. Statecraft creates situations which allow students to understand course concepts on a personal level; they must apply the lessons they've learned in class to succeed. Parallel to the simulation, we look at big patterns of globalization and global challenges, and international systems to give students a framework to make sense of this complicated and interconnected world. We also look at "hot-spot" issues on an ad-hoc basis. If an international crisis arises, we stop everything and dive deep into understanding the crisis.

The basics of Model United Nations are also taught in this course so students can play the role of expert and learn more about the essential institution that is the United Nations. Finally, students are given 20% of the semester to work on a passion project. Students need to make a product. They also need to interview an expert in the field and in lieu of a final test, we host a Ted-talk style evening in which students share their findings with caregivers and others in the community.

INTERNATIONAL RELATIONS ADVANCED (spring semester)

International Relations places itself at the intersection of a number of related fields: history, economics, and political science. In the initial days of the course, students will explore key concepts including the structure of the international system and the main actors on the world stage such as states, international organizations, and transnational actors. The course will broadly follow the structure and content of its cousin, International Relations (see course description above). However, IR advanced will require more reading, more writing and go deeper in its study. The course will examine some mathematical modeling central to current IR theory such as game theory and Fearon's rational choice theory as well as global economic systems. To make these theories less abstract and divorced from the way the world actually operates, students spend 3-5 weeks playing an in-depth online roleplay called Statecraft.

Finally, students are given 20% of the semester to work on a passion project. Students need to make a product. They also need to interview an expert in the field, and in lieu of a final test, we host a Ted-talk style evening in which students share their findings with caregivers and others in the community.



PHILADELPHIA BLACK HISTORY FROM RECONSTRUCTION TO THE PRESENT (fall semester)

This course focuses on the agency of the Philadelphia Black community to define and redefine itself as it addressed political, social, economic, and racial concerns in key moments from the period following the passage of the 13th, 14th, and 15th Amendments to the present day. Building on knowledge they have attained in prior courses, students will develop their skills analyzing secondary sources, like historiographic journal articles, and exploring primary sources, such as oral histories from both prominent and ordinary Philadelphians. Topics addressed include the well-documented development of the community in the 7th ward, the Great Migration, and the growing power of community activism in the 20th century with attention to specific actions like the 15-year effort that brought an end to segregation at Girard College in 1968. There will be opportunities to explore different kinds of social science methodologies and opportunities for independent research.

THE SOCIOLOGICAL IMAGINATION: RACE, CLASS & GENDER IN AN UNEQUAL WORLD (spring semester)

This course offers students the opportunity to develop their sociological imagination to understand social stratification and inequality. The sociological imagination highlights the intersection between our individual experiences and the larger movements of history. Through this lens, students study social stratification, a social process whereby people are sorted into categories such as class, race, and gender. Students begin with a core understanding of the history and theory of sociology. They develop their sociological imaginations applying these concepts to issues of stratification and inequality in their lives and in society. Students have opportunities to examine their own experiences and those of others in the classroom, in the community, and in the larger world. Each unit advances student knowledge through classroom experiences and independent application of social scientific research skills and methods.

MODERN AFRICA ADVANCED (spring semester)

This semester-long course will explore the development of independent African states in the aftermath of WWII and some aspects of the complex colonial legacy. This course will address issues of national identity, as well as cultural, social, economic, and political themes. We will also look at Africa's changing role in the world through the Cold War and its growing significance in the 21st century world. Semester one, Creating Africa, is not a prerequisite for this course.

MODERN CHINESE HISTORY (spring semester)

This semester-long course covers modern Chinese history, starting with the rise of the Qing Dynasty in the mid-17th century to the end of the 20th/beginning of the 21st century as the Chinese Communist Party shapes and reshapes itself, opening doors to international trade and interaction. It will be a survey course of important internal events in China, as well as foreign interactions, both of which shape China as an independent country and as a player on the world stage. After building the scaffolding of knowledge about events in China, students will use the skills they have already acquired to interpret various primary sources. We will find ways to utilize art, performance, and religion to enhance our understanding. David Kenley's *Modern Chinese History*, as well as other secondary sources, will be used. We will also read primary sources, many coming from David G. and Yurong Y. Atwill's book *Sources in Chinese History: Diverse Perspectives from 1644 to the Present*.

MODERN EUROPEAN HISTORY SEMINAR ADVANCED (full year)

This yearlong course examines selected topics in European history from the end of the 18th century through the early 21st century. Traditional landmarks of the period include the French and Industrial Revolutions, Imperialism and the New Imperialism, the World Wars, and the Cold War. We also examine themes such as communism, dictatorship, and liberal democracy, the relationship of Europe with the wider world, and the art and architecture of the era. Readings and images are drawn from primary and secondary sources. Active participation in daily presentations and discussions is expected. Assessments will include occasional quizzes, two tests in the fall semester and one in the spring, and analytical essays, some of which will be written in class. *Open only to grade 12 students.*

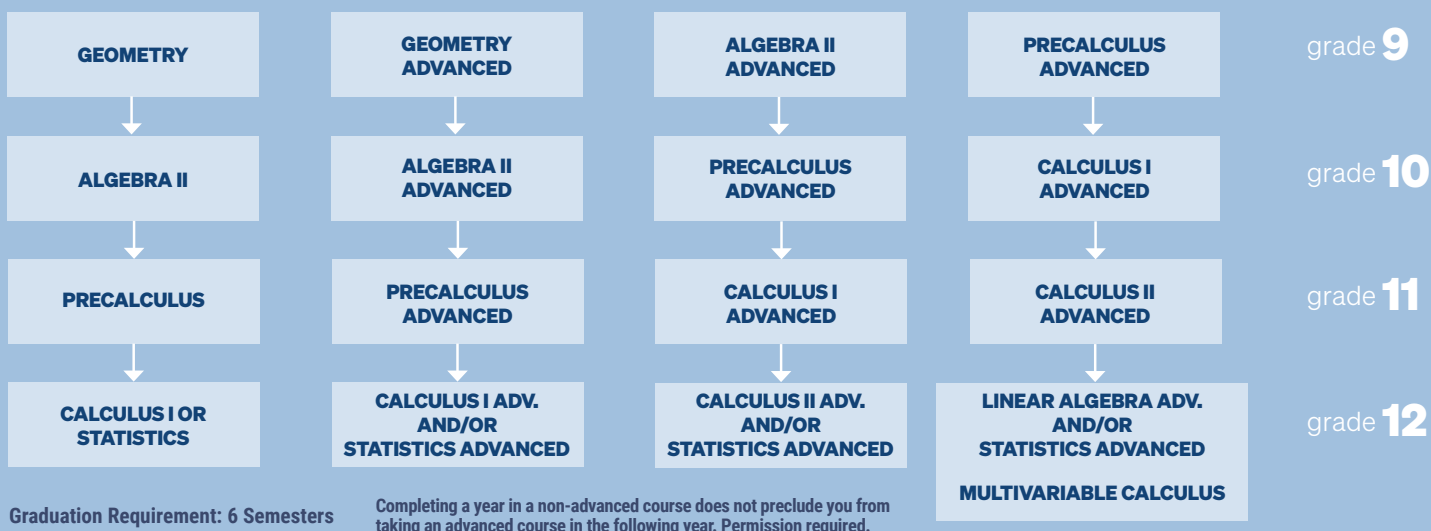
WOMEN'S HISTORY IN THE UNITED STATES (not offered in 2024-2025)

This class will roughly follow the grade 11 American History course but focusing on American women, moving from Colonial America to the present day. Along the way, we will look at women's health, clothing, writing, sexuality, marriage, and activism. We will focus on primary sources that reflect women's experiences, as well as the movies and documentaries that will give us a clearer sense of what society demanded of women. Our readings will be split between the historical and the present day; we will read a women's studies text to help us discover what is happening in the United States today.



MATHEMATICS

Below are just four typical paths through the math curriculum. It is important to note that there are many different paths that students may choose to take.



Friends' Central's math department combines a belief in the ability of our students to rise to intellectual challenges and a program that offers a high degree of flexibility in course selection and sequence. For example, students can design a sequence that includes a year of calculus without doing additional summer work. More advanced students have the opportunity to progress through Linear Algebra within our curriculum. Friends' Central facilitates independent study or enrollment in math classes at nearby colleges and universities for students who exceed Linear Algebra.

All students are required to take three math courses; the majority take one each year. Most classes have both a regular and an advanced level offered. Some students choose to accelerate by taking a summer course. A typical Upper School path includes algebra II, precalculus, and calculus.

While many students take two years of calculus before graduating, others choose statistics over a second year of calculus. We also offer Linear Algebra and Multivariable Calculus (*supported independent study*) for students completing two years of Calculus.

We have an active math team, and many students compete successfully in national and international mathematics competitions.

ALGEBRA I

Algebra I focuses on the study of elementary functions, including linear equations, linear systems, and quadratic equations. The course also includes work on polynomials, rational algebraic expressions, laws of exponents, and simplifying radicals. An introduction to the use of the TI Nspire graphing calculator app (a graphing calculator) is also part of the course. A major emphasis of the course will be the ways that mathematics is used to solve "real world" problems. Students will also have the opportunity to apply their skills in a variety of mathematics projects throughout

the year. (*This course will be different in structure from the two-year course offered in Middle School; however, all major first year algebra topics will be covered.*)

GEOMETRY

This course includes an in-depth analysis of plane, solid, and coordinate geometry as they relate to both abstract mathematical concepts as well as real-world problem situations. Topics include logic and proof, parallel lines and polygons, perimeter and area analysis, volume and surface area analysis, similarity and congruence, trigonometry, and analytic geometry. Emphasis will be placed on developing critical



thinking skills as they relate to logical reasoning and argument. *Prerequisite: Algebra I*

GEOMETRY ADVANCED

Geometry is the study and measurement of shapes, and its study is both extremely useful and very beautiful. Moreover, we discover geometric truths by carefully applying the rules of logic, which are valuable in their own right throughout our lives. In Geometry Advanced, we explore directly the rules of symbolic logic and Boolean Algebra, distinguishing assumptions, definitions and proven statements. Using these tools, we consider points, lines and planes and apply these notions to in-depth studies of two-dimensional shapes – triangles, more complex polygons, and circles and three-dimensional shapes – polyhedrons and spheres – while integrating concepts from algebra at every step to establish the foundations of analytic geometry. After comparing the notions of congruence and similarity, we go on to develop the foundations of trigonometry. Throughout our work, we study both theory and real-world applications, and we discuss the historical and cultural context in which geometry developed and has been used over the centuries. These studies form the theoretical and practical foundation for all the advanced studies in our Upper School curriculum, including Algebra II, Precalculus, Calculus, Statistics and Linear Algebra. *Prerequisite: Algebra I and recommendation of the department*

ALGEBRA II

In the first part of this course, students study the properties that make a mathematical relationship a function. They learn how various elements of the function equation determine transformations of the graph of the specific function. The functions that are studied are linear, quadratic, rational, radical, exponential and logarithmic functions. In a world that is data driven, it is important that students be introduced to the topics of matrices, data analysis, and probability. Each of these topics introduces the student to a way of organizing and analyzing data that will help them in a decision-making process. *Prerequisite: Algebra I*

ALGEBRA II ADVANCED

The difference between our advanced and regular sections is in the speed at which information is introduced and the difficulty of the problems required of the students. In addition, the advanced class studies two units not included in our regular Algebra II curriculum.

In the first part of the course, students study the properties that make a mathematical relationship a function. They learn how various elements of the function equation determine transformations of the graph of the specific function. The functions that are studied are linear, quadratic, rational, radical, exponential and logarithmic functions. In a world that is data driven, it is important that students be introduced to the topics of matrices, data analysis, and probability. Each of these topics introduces the students to a way of organizing and analyzing data that will help them in a decision making process. In addition to the above topics which are also covered in our Algebra II regular course at a more elementary level, this class includes an introduction to the study of sequences and series which is necessary for success in our Calculus Advanced classes. *Prerequisite: Algebra I and recommendation of the department*

PRECALCULUS

This course is designed to advance the student's understanding of mathematical functions, trigonometry, and modeling and give students an introduction to data analysis and statistics. Students are asked to investigate functions, their graphs, and their applications. The course strives to help students understand the connections between the representations of functions graphically, numerically, and analytically. Students also develop mathematical models for various "real world" situations. In this course, more of an emphasis is placed on applications than on theory. Students will also make extensive use of the Desmos online graphing calculator. *Prerequisite: Geometry and Algebra II*

PRECALCULUS ADVANCED

Students in Precalculus Advanced explore challenging problems and concepts throughout the curriculum. They work in groups and independently and use the desmos graphing calculator to explore new functions and to ask new questions. The course's main focus is an intensive look at mathematical functions in all their various forms. This is a significantly more conceptual course than Precalculus. Topics include polynomial, rational, exponential, logarithmic, and trigonometric functions, as well as their transformations and inverses. Time permitting, additional topics may be included such as probability or conic sections. *Prerequisite: Geometry and Algebra II Advanced and recommendation of the department. There is a placement test for this course.*



CALCULUS I

Students in Calculus I work in groups to explore conceptual calculus concepts. Instead of a textbook, the CalcMedic curriculum has been adapted for this course. Students explore concepts together in groups first, and then we formalize them together as a class. This course covers differential calculus and an introduction to integral calculus. For differential calculus, the importance of the connection of instantaneous rate of change to the slope of tangent lines to a curve is emphasized as a way of thinking about the first derivative. For integral calculus, the visual basis of the understanding of area under a curve is the accumulation of an increasing number of rectangles determined by the curve. We will cover the basic derivative rules and integration rules for the functions that were studied in Precalculus. **Prerequisite:** *Precalculus or Advanced Precalculus*

CALCULUS I ADVANCED

This course is a more rigorous development of single variable differential and integral calculus from multiple perspectives (algebraic, graphical, numerical, and verbal). For differential calculus, the importance of the connection of instantaneous rate of change to the slope of tangent lines to a curve is emphasized as a way of thinking about the first derivative. We will look at the application of the derivative to solve related rate questions, optimization questions and the application of derivatives to the graphing of functions. For integral calculus, the visual basis of the understanding of area under a curve is the accumulation of an increasing number of rectangles whose height is determined by the curve. We will use the definite integral to find the area under a curve or between curves, volumes of revolution around an axis using the disk method and the shell method. We end the course looking at integration by parts. We will cover the basic derivative rules and integration rules for the functions that were studied in Precalculus. **Prerequisite:** *Precalculus Advanced*

CALCULUS II ADVANCED

This course is for students who have excelled in Calculus I Advanced. The Calculus II Advanced curriculum is even more challenging and typically includes advanced techniques of integration, calculus in polar coordinates, graphing, infinite series, first-order ordinary differential equations and ap-

plications, and three-dimensional coordinate systems. In addition to a deep understanding and retention of material covered in Precalculus Advanced and Calculus I Advanced, successful Calculus II Advanced students will have demonstrated both successful completion of assigned work and an intuitive grasp of the subject matter. **Prerequisite:** *Calculus I Advanced*

STATISTICS

This course provides a foundation for future statistics courses and develops the student's ability to understand data in the world at large. Students develop their ability to gather, organize, interpret, and present data, as well as learn how to use the basic tools of probability. These topics are presented through activities, projects and group problem solving. We use Desmos, applets, and other statistical software programs as computational and analytical tools. In this course, as opposed to Statistics Advanced, there is additional focus on exploring data, planning a statistical study, and anticipating patterns using probability and the unit on confirming models through statistical inference is deemphasized. **Prerequisite:** *Algebra II*

STATISTICS ADVANCED

This course is equivalent to an introductory, non-calculus based college course in statistics. This accelerated course is intended to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad themes: 1. Exploratory data analysis, such as using graphical and numerical techniques to study patterns and departures from patterns. 2. Data collection and planning a statistical study so that valid data are obtained. 3. Anticipating patterns using probability, and 4. Confirming models through statistical inference. In and out of class students often work in groups to complete activities and projects. The course makes significant use of the R programming language, applets, and calculators to perform most of the statistical calculations, leaving the analysis and interpretation of the results to the students. Students who successfully complete this course have the option of taking the Advanced Placement test in Statistics and are adequately prepared for the AP Exam. **Prerequisite:** *Precalculus*



LINEAR ALGEBRA ADVANCED

The Linear Algebra course offered at Friends' Central School is comparable to a college-level first course in Linear Algebra for math, engineering, and computer science majors and is an excellent choice for students who plan to pursue these disciplines in college and beyond. Points of emphasis include matrices, vector operations, vector space basics, linear dependence/independence, basis, span, and invertibility. Students are introduced to basic mathematical proof, a small but important component of the course, and are able to shape their own Linear Algebra experience through selection of projects and applications. There is, indeed, more to life – and math! – than Calculus, and we are pleased to offer this relevant and challenging option to our upper-level math students. *Prerequisite: Calculus II Advanced, a willingness to work independently, and an interest in mathematics and abstract thinking*

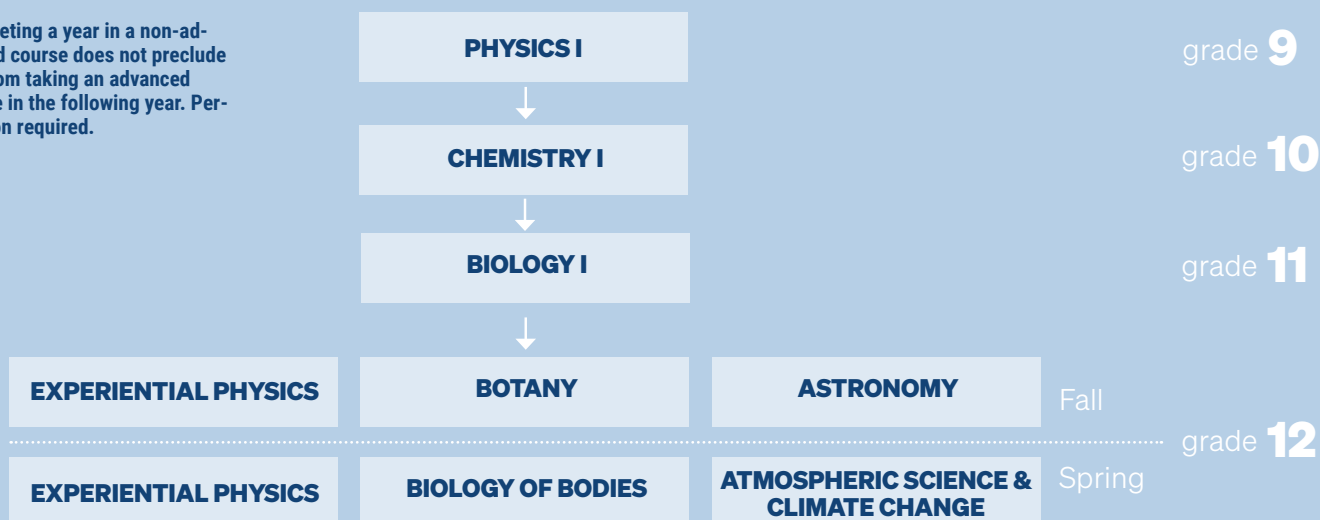
MAKING DECISIONS: AN INTRODUCTION TO ECONOMICS (spring semester)

Economics is the science of decision making, the study of choice - where the costs and benefits of alternatives are evaluated. This semester-long course will be an exploration of certain concepts in economics. The main goal of the course is two fold: 1. to understand basic economic concepts and 2. strengthen critical thinking skills needed to understand and respond to various complex situations. The course will require utilization of various mathematical skills to comprehend the economic concepts presented. The course will be split into three units: Microeconomics, Macroeconomics, and Business Ethics. Upon completion, students will understand fundamental economic concepts, appreciate how the principal concepts of economics relate to each other, and understand the structure of economic systems. Students will be able to use economic concepts in a reasoned, careful manner in dealing with personal, community, national, and global economic issues. *Prerequisite: Precalculus*



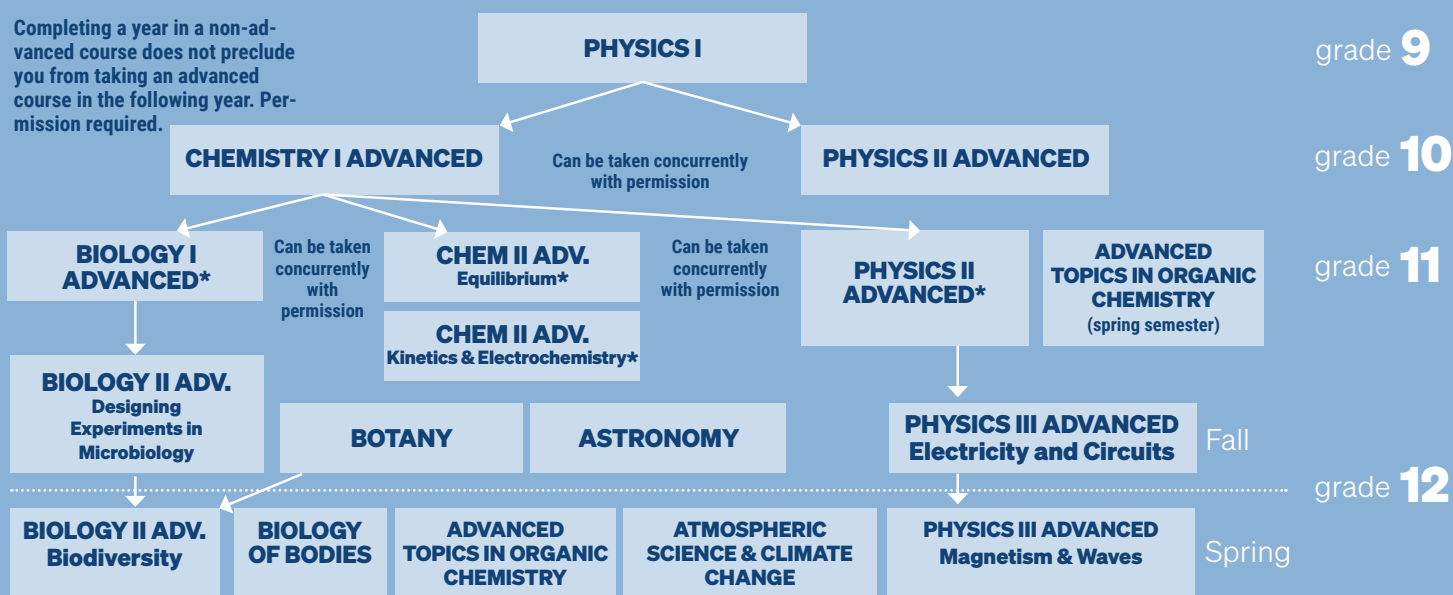
SCIENCE

Completing a year in a non-advanced course does not preclude you from taking an advanced course in the following year. Permission required.



SCIENCE ADVANCED

Completing a year in a non-advanced course does not preclude you from taking an advanced course in the following year. Permission required.



SCIENCE

The Friends' Central science curriculum strives to foster a deep appreciation for the meaning and relevance of science, while cultivating the development of independent learners skilled in critical thinking and original analysis.

The sequence begins with Physics I, taken by all students in grade 9. Developed by Friends' Central teachers, this distinctive course explores central concepts in physics as a foundation of the course. It then integrates basic theories of chemistry and biology into the curriculum and finishes with a final culminating project that asks students to reflect and connect many of the concepts. Students learn the process of gathering, organizing, and interpreting scientific data in regular laboratory investigations.

Following Physics I, students enroll in regular and advanced chemistry, biology, and physics classes which are available to students in grades 10, 11, and 12. Students passionate about science may choose to take more than one science course and can pursue a second level of advanced chemistry, biology, and physics.

Each class has an active and integrated lab program. Interested students in all grades may participate in the Distinguished Visiting Scientist Program over the course of the year. This program offers a regular seminar meeting for instruction and dialogue, visits and conversation with the visiting scientist, and summer travel to see scientists at work in the laboratory or the field. **New this year, the Science Department is offering a certificate program in ecological monitoring called "Natural Lands" each semester. For details, see page 3 of this Curriculum Planner.**

GUIDE TO COURSE OFFERINGS IN SCIENCE:

GRADE 9

Physics I is a keystone in the science program and a strong preparation for advanced work in all science disciplines in following years. This course counts as one of the two required years of science in the Upper School.

GRADE 10

In grade 10, most students choose from three different science courses: Chemistry I, Chemistry I Advanced, or Physics II Advanced. Grade 10 students new to Friends' Central may be placed in Physics I. Students entering grade 10 who are not certain which science elective is best for them should speak to any of the science teachers for guidance in course selection. Students who wish to take Chemistry I Advanced and Physics II Advanced concurrently in grade 10 must have taken or been co-enrolled in Precalculus Advanced and have the approval of their current grade 9 science teacher. Students electing to take Chemistry I Advanced or Physics II Advanced should have solid skills in algebra and be comfortable with the use of multivariable equations. A math placement examination is offered to help guide students in their selection of the Physics II Advanced course. Completing a year in a non-advanced course does not preclude you from taking an advanced course in your grade 11 year, but permission from your teacher is required.

GRADE 11

Students who have completed Chemistry in their grade 10 year may elect to take Biology I or Biology I Advanced in grade 11. Students who completed Chemistry I Advanced in grade 10 may elect to take Chemistry II Advanced in grade 11. Students who have completed Physics II Advanced in grade 10 may elect to take Physics III Advanced in grade 11. Grade 11 students also have the option of taking Chemistry I or Chemistry I Advanced or Physics II Advanced. Completing a year in a non-advanced course does not preclude you from taking an advanced course in your grade 12 year, but permission from your teacher is required.

GRADE 12

Science course offerings for grade 12 offer many opportunities for students who are interested in a variety of fields. Many but not all courses are either fall or spring semester courses. The semester options allow for greater student choice in the many exceptional courses we offer. In addition, students who have completed Biology I Advanced may take the Biology II Advanced with the permission of the instructor. Just as in the Grade 11 description, Chemistry II and Physics III Advanced remain options, as well, with permission from the instructor.



PHYSICS I

This is the core course in the Upper School science program. The premise of this course is that the big ideas serving as the foundation of science are elegant in their simplicity but intricate in their many diverse applications. The course begins by examining how we distinguish between truth and beliefs. Following this, students explore central concepts in Physics: measurement, Newtonian motion, work/energy, thermodynamics, electricity and magnetism, electromagnetic radiation, sound waves, atomic and molecular architecture, and the interconvertibility of matter and energy. These concepts serve as a core background to much of science theory and practice. Considerable class time is devoted to the use of problem-solving skills to explore the quantitative applications of these ideas. Given this groundwork, the final weeks of the course consider these ideas as they apply more specifically to atomic structure, molecular bonding, and selected topics in life science, particularly nucleic acid and protein chemistry in living organisms. Experiments are conducted during regular lab meetings and are chosen to illustrate important ideas and observations in the discovery of first principles of scientific understanding. Finally, there is a project at the end of this course that asks students to reflect and show how many of the concepts are interconnected. This course is standard and required for all grade 9 students.

BIOLOGY I

A major goal of the Biology course is to introduce students to basic biological processes, such as cell division and respiration, and to relate them to structural properties of cells and organisms. Another goal is to familiarize students with the concepts of modern biology, including patterns of inheritance and the molecular basis of heredity and its applications to the fields of medicine, environmental science, and biotechnology. Experiments in cellular respiration, enzyme function, and microbiology present opportunities to refine students' understanding of the scientific method as they collect and analyze data. Students study units in evolution cellular biology, human physiology, genetics, and ecology. This course is open to students in grades 11 and 12.

BIOLOGY I ADVANCED

The Biology I Advanced course draws strongly on students' chemistry and physics training to gain a foundation in biochemistry, cell biology, molecular genetics, evolu-

tionary biology, and ecology. Students use this foundation to read scientific papers, interpret primary literature data and think about how complex systems function at a variety of scales, gaining valuable health and scientific literacy along the way. Through laboratory investigations, simulations, and research, students learn how to organize and distill large amounts of detailed information to develop original conclusions supported by solid evidence and reasoning. Through labs in cellular metabolism, enzyme reaction rate, artificial selection, and more, students explore a variety of scientific techniques and gain experience analyzing their own original data. *Prerequisite: Chemistry I Advanced*

BIOLOGY II ADVANCED

Designing Experiments in Microbiology (fall semester)

This course uses a combination of research literature analysis, laboratory investigations, and discussions to explore topics in microbiology. Students will use their foundations from Biology I Advanced to develop a deeper understanding of the structure, physiology, and function of microorganisms, focusing on bacteria and fungi. Highlighting the microbiology themes of ubiquity and diversity, implications for disease and health, symbiosis, and role in shaping ecosystems, students continue to build their critical thinking and analytical skills to develop the scholarly skepticism required for scientific learning. Laboratory investigations emphasize the design and analysis components to further understand the application and complexities of scientific processes. Preparation for and attendance at the annual Annenberg High School Symposium, where students present on recent developments in a topic of their choice, will also be a part of this course. *Prerequisite: Biology I Advanced and departmental permission required.*

BIOLOGY II ADVANCED

Biodiversity (spring semester)

The Biodiversity Studies course will focus on the role of ecological studies, evolutionary biology and molecular phylogenetics to understand the diversity of life on Earth. Central questions addressed in the course will include definitions of biodiversity and ways to measure it, how scientists estimate species richness in different habitats, interrelationships among species including parasitism and mutualisms and current threats to biodiversity. The course will make use of frequent readings from the scientific literature as well as



selected recorded interviews with scientists. The class includes a significant lab component that will develop molecular techniques in gene sequencing that are used to study relationships among species or look for unrecognized cryptic species, building on a ten-year research program in our lab. Large datasets from the Global Biodiversity Information Facility will offer opportunities to apply quantitative analyses of diversity indices. Students will have the opportunity to make field observations and collections in the final spring weeks of the class to deepen our understanding of biodiversity on our own campus. *Prerequisite: Biology I Advanced and departmental permission required.*

CHEMISTRY I

This course is an introduction to chemistry. Students build an understanding of fundamental concepts of chemistry and examine the nature of matter and of the physical world. The course emphasizes problem-solving strategies, methods of interpreting data, and the ability to explain scientific concepts. Lab sessions reinforce course topics and introduce students to fundamental laboratory practices. Beginning with atomic structure and the nature of the atom and extending through molecular structures and chemical reactions. Other topics covered include nuclear chemistry, bonding, stoichiometry, thermodynamics, intermolecular forces, and gas laws. Open to students in grades 10, 11, and 12.

CHEMISTRY I ADVANCED

Chemistry I Advanced, an introduction to chemistry for students who want to examine its fundamental concepts in more depth, explores the details of atomic structure, chemical reactions, molecular structure theory, and bonding mechanisms, gas laws, and electrochemistry. Advanced analytical problem-solving techniques are developed as students are introduced to abstract concepts in chemistry. Laboratory experiments offer opportunities to correlate experimental data collection and analysis with classroom content and to gain experience in laboratory-report writing and graphical representation of data. The course emphasizes quantitative reasoning and analytical thinking in both classroom and lab; strong quantitative skills are essential. Open to grades 10, 11, and 12. *Departmental permission required.*

CHEMISTRY II ADVANCED

Chemical Equilibrium (fall semester)

The reversibility of many chemical reactions that occur in nature, and others used in industrial processes, offer students

the opportunity to explore the ideas of chemical equilibrium, where concentrations of reactants and products co-exist. Mathematical calculations determining the relative concentrations of the chemical species within reaction types are central to this course. Exploring changes in concentrations as equilibrium systems are disturbed is also considered. Examples of chemical systems discussed include acid/base reactions and buffer systems. In addition applications in real world contexts will be examined including ocean carbonate equilibria as it relates to climate change, acid/base/buffer reactions in biological systems, hemoglobin-oxygen complex formation, and the Haber process in the production of ammonia. *Prerequisite: Chemistry I Advanced and departmental permission required.*

CHEMICAL KINETICS AND ELECTROCHEMISTRY

(spring semester)

Chemical kinetics is studied using a combination of provided experimental data and data gathered by students. Students examine chemical reaction Rate Laws and apply those equations to experimental data. These explorations give each student the opportunity to apply, and refine, their fluency with graphical techniques and constructing laboratory reports. Chemical reaction thermodynamic favorability is defined, and connections between it and equilibrium, entropy, enthalpy, and Gibbs Free energy are explored. Electrochemistry is also studied, including an examination of batteries, solar energy, and the industrial electroplating process. The course will conclude with a unit on common spectroscopic techniques including NMR, IR, Mass spectrometry and UV-Vis spectroscopy. *Prerequisite: Chemistry I Advanced and departmental permission required.*

ADVANCED TOPICS IN ORGANIC CHEMISTRY

(spring semester)

Students will build on previous chemistry knowledge as well as develop an understanding of the topics generally covered in a first-semester organic chemistry college course. Such a course is a required course for many science majors as well as pre-med programs. These topics include an exploration of the characteristics of basic hydrocarbons (alkanes, alkenes, and alkynes) as well as the reactions of these compounds and the mechanisms of these processes. Particular emphasis will be placed on how the relationship between shape and reaction pathway influences reaction products. *Prerequisite: Chemistry I Advanced and departmental permission required.*



EXPERIENTIAL PHYSICS (fall or spring semester)

This semester course focuses on the major themes of physics, emphasizing the exploration and development of key concepts before taking up mathematics and applications in problem solving. Conceptual understanding is a fundamental goal of the course and it is supported by many hands-on projects. The big ideas of the physical universe are actually few in number and widely interrelated. This course will emphasize the concepts of physics in a manner that will make these interrelationships easier to recognize. Our study of physics will include careful observations of nature and thoughtful interpretation of why things happen the way they do. In the process, we will also consider applications of these ideas in the everyday world such as why massive boats can float and how thin bridges support heavy loads. Open to grades 11 and 12 only. *Prerequisite: one year of Upper School science*

PHYSICS II ADVANCED

This course provides a survey of the most important topics in mechanics, with attention to analysis of one- and two dimensional kinematics and dynamics, as well as rotational kinematics and dynamics. The class also includes some introduction to higher level topics, such as pulsar astrophysics, relativity and thermodynamics, with a focus on the role played by energy in physical problems. Our goal is to present physics in a logical and coherent way while exposing students to problem-solving skills and some contemporary applications of physics in everyday life. Students enrolled in physics must have an adequate background in mathematics. This course is open to grades 10, 11, and 12 but students must be fluent in trigonometric functions. *Prerequisite: Chemistry I Advanced, Biology I Advanced, or permission of the instructor*

PHYSICS III ADVANCED

Electricity and Circuits (fall semester)

In this course, students will build on the problem-solving and analytical skills developed in Physics I Advanced to study the classical laws governing electric charges. Through lecture, laboratory experimentation, and problem sets, the topics studied will include electric fields, electrical potential, current, circuit components, and AC and DC circuits. Group work is encouraged, exposing students to the collaborative nature at the heart of scientific inquiry. Both trigonometry and calculus will be used to examine the theory behind physical

phenomena (although previous study of calculus is not required). *Prerequisite: Physics II Advanced and Precalculus Advanced. Departmental permission required if a student has not previously taken Physics II Advanced.*

PHYSICS III ADVANCED

Magnetism and Waves (spring semester)

Grounded in their knowledge of electric forces and circuits, students will study magnetism, and the electromagnetic theory of Maxwell's equations. Areas of study include magnetic fields and forces, induction, AC circuits, and electromagnetic waves. After completing these classical topics and time permitting, modern physics topics will be explored, such as optics, relativity, quantum mechanics, particle physics, material science, and fluid dynamics. This course will challenge students to apply rigorous mathematical analyses to physical problems and to question their intuition about the physical world. *Prerequisites: Precalculus Advanced and Physics III Advanced: Electricity and Circuits*

PHYSICS

Mechanics (fall semester)

This course is open to all students but is specifically designed for those who entered Friends' Central after grade 9 and who did not take our Physics I course. Students will be asked to investigate the classical mechanics of physics as it relates to motion. Concepts studied will include but are not limited to motion (kinematics, velocity, and acceleration), forces (Newton's laws), and energy (mechanical). Motion and forces will be primarily examined in one dimension but will also include some 2D reasoning and problem-solving as well. There will be hand-on building activities and applied uses and exploration of the concepts studied in this course.

BOTANY (fall semester)

This course is offered as a fall semester class for seniors who have an interest in the biology and ecology of plants and fungi, particularly those of economic importance to humans. The course will begin with a study of systematic biology and nomenclature, introducing students to the system of naming and classifying plants across diverse families. Additional topics will develop an understanding of the anatomy and life history of flowering plants, with special attention to the structures of the flower, seed dispersal strategies, plant-pollinator relationships, and the cellular makeup of leaf and stem tissues. Extensive outdoor field-



work and active participation in regular discussions are important components of the course. Detailed investigations will be made in the areas of food plants, issues in modern food production systems and agriculture, and the chemistry of medicinal and drug plants. Open to grade 12 students. *Prerequisite: Biology, Biology I Advanced, or permission of the instructor*

BIOLOGY OF BODIES (spring semester)

This course is for seniors who have taken Biology I or Biology I Advanced and delves into the anatomy, physiology, and pathology of vertebrate animals, focusing on humans. The goal of this course is to provide a rigorous scientific understanding of the range of complex yet elegant processes we experience every day that keep us alive. Topics will vary with student interest and will range from reviews of specific organ systems to developmental biology to the biological basis for diagnosis, therapies, and advances in the health and medical sciences. Anatomical dissection of biological material may be included in the course laboratory experience. *Prerequisite: Biology, Biology I Advanced, or permission of the instructor*

ASTRONOMY (fall semester)

This course will guide students through a tour of the universe in four units. It starts with basic celestial orientation, where students learn how to find and then map significant markers in the sky. Students will study the changes in the sky over time, such as the seasonal movement of the Sun along the horizon and the phases of the Moon. We will also look at how astronomers analyze light from distant objects to probe their inner nature and the kinds of telescope specifications necessary for exploring different regions of the electromagnetic spectrum. Our second unit, a study of stars, will start with our Sun. We will look at how and why stars change over the course of their lifetimes, and how astronomers are able to understand these changes. Next, we will move beyond our

own neighborhood to study the collections of stars we call galaxies, considering even the exotic types like QSOs and other active galaxies, and how all these play a role in understanding the origin and potential fate of the universe. Lastly, we will turn back to much more familiar territory, looking deeply at what has been learned about the worlds in our very own Solar System, and how understanding the geology near to us may help us in our search for other habitable worlds around other stars. This course will involve a laboratory component that will require occasional evening observing sessions on campus and at least one field trip to a local planetarium and/or observatory.

ATMOSPHERIC SCIENCE AND CLIMATE CHANGE (spring semester)

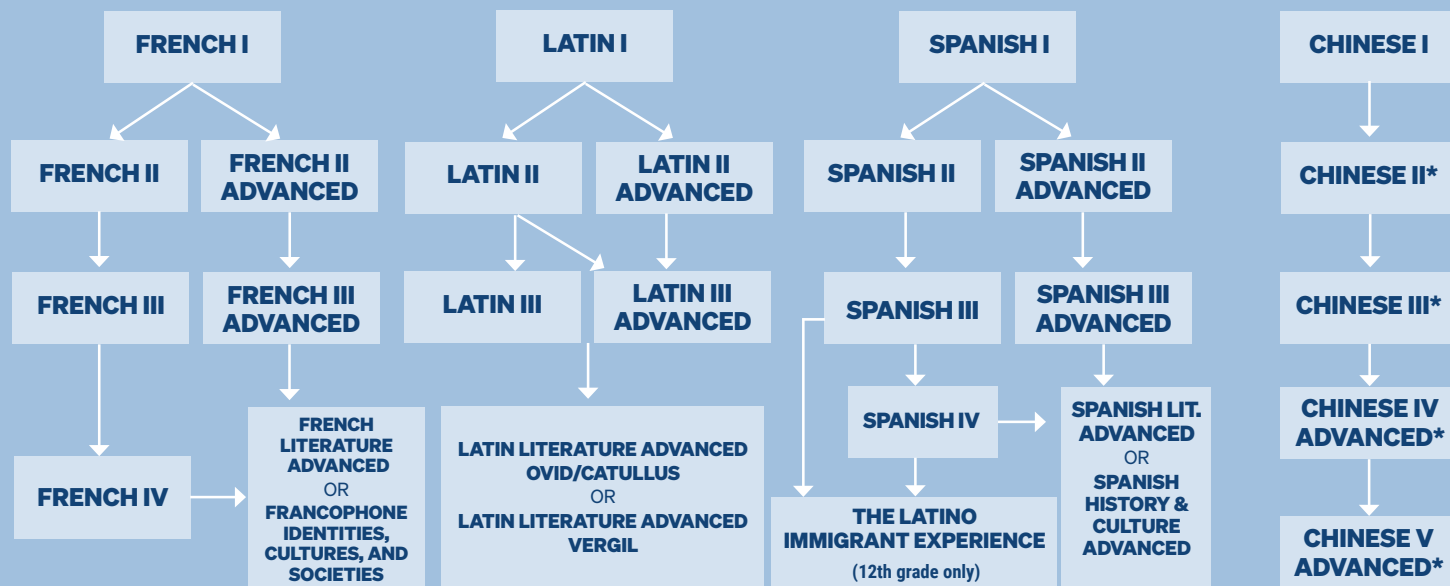
This course is designed to consider the sources of the individual atmospheric chemical constituents that are known to be the greenhouse gases, or gases that trap earth-borne radiation from escaping thus causing the rise in average global temperatures, how the constituents differ in their Greenhouse Warming Potential, and subsequent climate change impact that the constituents will likely impose on the global communities. Although global climate change is often discussed by considering average rise in global temperatures, there are select global regions that are being impacted to a greater extent by climate change than others. Students will consider these regions, specifically the Arctic region, explore the impact the melting ice sheet, the thawing permafrost, and the deterioration of Greenland's ice mass will have on the state of the global climate, and evaluate the human toll in the regions by the rapidly changing conditions. A consideration of the scientific predictions for the future climate change impact on weather, ocean temperatures, and sea level rise will be made. We will also discuss climate policy and solutions, looking at how nations plan to both lessen the effects of climate change and adapt to our changing world.



WORLD LANGUAGES

Graduation Requirement: 4 semesters of the same language

Completing a year in a non-advanced course does not preclude you from taking an advanced course in the following year. Permission required.



*These levels will be available in future years as the program expands but are not offered in 2024-2025.

The benefit of knowing another language contributes to Friends' Central's commitment to developing globally minded, culturally aware graduates. Students are required to take two consecutive years of a language, and most take a language for four years. The majority of students enter the Upper School having already completed the first level of French, Spanish, or Latin and further their studies for two more years and beyond to the advanced level. Other students start their language studies or begin a new language in grade 9. Beginning in 2024-2025, we are offering Chinese (Mandarin). In French, Spanish, and Chinese, the curriculum is rich with opportunities for speaking, listening, reading, and writing. In Latin, the focus is on developing translation skills through the mastery of grammatical concepts and the acquisition of vocabulary. Courses in each language range from introductory to advanced literature and analysis.

The process of teaching a modern language begins with the belief that each student can attain advanced proficiency. Our approach is multidisciplinary and contemporary, taking advantage of technology to expose our students to a variety of native speakers and cultures and to stress that language is a communication tool. Students are encouraged to speak and write in the target language, gaining confidence in their abilities with practice. Latin is not spoken in class and prose composition is not emphasized. Understanding the cultures of antiquity and the medieval world is essential in placing literary works in context and an important component in instruction.

Each language's classroom experience is supplemented by opportunities for travel abroad. Latin students may travel to Italy to see the monuments of the Romans – ancient and modern – and read their Latin inscriptions. French and Spanish students may take part in exchange opportunities with schools in Lyon, France and Seville, Spain. Summer service programs in Costa Rica and Peru may also be available to students to further their study of the Spanish language, and a summer trip to Québec City, Canada is available every two years for French students.

Finally, interested students may take part in national language competitions and join clubs such as Le Club Francophone, Latin Club, Spanish Club, or the Latino Culture Club.



CHINESE (MANDARIN)

CHINESE (MANDARIN) I

NEW IN 2024-2025 SCHOOL YEAR

This course introduces students to standard Mandarin Chinese language and is designed for students with no or minimal previous background in spoken or written Mandarin. Students in this course focus on learning essential vocabulary, practicing pronunciation, and understanding simple grammatical structure. This knowledge prepares students to effectively communicate in Mandarin on a range of topics related to everyday situations. Students practice listening and speaking in real-life situations, learn to read and write Chinese characters, and examine how culture and language interact in China. In-class activities and course assignments aim to assist students as they develop the oral proficiency and confidence necessary to initiate simple conversations. After one year of instruction, students should achieve proficiency level of novice mid to novice high as defined by the American Council on the Teaching of Foreign Languages.

FRENCH

FRENCH I: INTRODUCTION TO FRENCH LANGUAGE AND CULTURE

In this course, students develop their communication skills through listening, speaking, reading, and writing in French. Videos, dialogues, skits, and e-textbook activities are used to practice vocabulary, grammar, listening comprehension, and pronunciation. A supportive classroom atmosphere helps students develop the confidence to talk about themselves. We emphasize the diversity of the French culture by studying authentic documents that show French people from diverse social and ethnic backgrounds. For example, in our unit about family, we study a song from Black M “Le plus fort du monde,” which portrays the admiration of the singer for his father who had to overcome many difficulties as an African immigrant in France. As the year progresses, the course is taught increasingly in French.

FRENCH II/II ADVANCED

This course initially reviews and then builds on the skills developed in French I, reinforcing pronunciation and essential grammatical, lexical, and cultural material while providing more advanced content in each domain. Students develop greater confidence and facility in expressing themselves in French, as well as in understanding others. This course en-

courages students to talk about themselves, their families, their world, and their opinions in the language. It explores the lives and cultures of people of the French-speaking world, emphasizing the beauty and diversity of other traditions and communities. Skits and presentations help students internalize new vocabulary and grammatical structures and use them in context. Students increase their oral and aural proficiency through active practice with a wide variety of inputs. Along with the D'Accord-2 program and films, students explore online resources and, in the spring, read short texts in French. *Enrollment in the advanced level is by departmental recommendation.*

FRENCH III/III ADVANCED

French III enhances and reinforces the foundation established in French I and II. Students advance their language proficiency by consistently revisiting and furthering previously acquired competencies. Utilizing a context-driven curriculum, students refine their expressive language skills, reinforcing verb structures such as passé composé, imparfait, futur simple and conditionnel, while integrating new forms such as subjonctif and plus-que-parfait. Taught in French, the course emphasizes discussion, oral and written proficiency, and listening comprehension. Along with the D'Accord-2 & 3 program, students use films, interviews, videos, narrative texts, music and games to further their acquisition. As an introduction to literature, the class studies *Le Petit Prince* by Antoine de Saint-Exupéry, providing the foundation for studying essential themes, such as the meaning of life and death, as well as understanding the human experience – especially concerning the role of interpersonal openness and compassion towards others. This course is pivotal in the language acquisition sequence. Having spent two (or more) years building a foundation in French, students are pushed in level III to use and synthesize, but also go beyond the basics. This course serves as a bridge to a more nuanced understanding of and ability to communicate in the language. *Enrollment in the advanced level is by departmental recommendation.*

FRENCH IV

In French IV, instruction is conducted entirely in French. With a focus on reinforcing previously learned skills, students deepen and expand on their existing knowledge to further their spoken and written proficiency. Emphasizing thematic vocabulary and grammar, students engage in the review and



enhancement of their language abilities while exploring increasingly complex French and Francophone literature and periodicals. Additionally, they will explore French news, films, and videos from across the French-speaking world. By the end of the course, students should have developed the ability to engage in conversations in French across a variety of subjects, ranging from politics to more philosophical topics. Formal assessments include regular oral presentations as well as written quizzes and compositions. Upon completion of this course, students should be prepared to enroll in an advanced French course, continuing the FCS French language sequence. *This course is open to French students who have completed French III.*

FRENCH LITERATURE ADVANCED

This course is structured like an introductory college level course. Thematically organized, it focuses on famous plays, short stories, pieces of poetry and novels from the 17th through 21st centuries by Maupassant, Molière, Reza, Camus, Faye, and Sartre, among others. The course explores themes such as fear and folly, class and gender equality, satire and philosophy. All works are integral texts in the original French. Lively and provocative discussions, led by the teacher or students, focus on the evolution of the protagonist, the narrator's point of view, and structural components of the works which enhance the students' understanding. Films offer an additional layer to help students further grasp the historical period and the author's message. We weave daily conversation related to the themes in a given text into our classroom routine. Students demonstrate their understanding of the texts through discussion, interviews, essays, and projects. *This class is the most advanced French class. Enrollment in this course is by departmental recommendation.*

FRANCOPHONE IDENTITIES, CULTURES AND SOCIETIES ADVANCED (offered in 2025-2026)

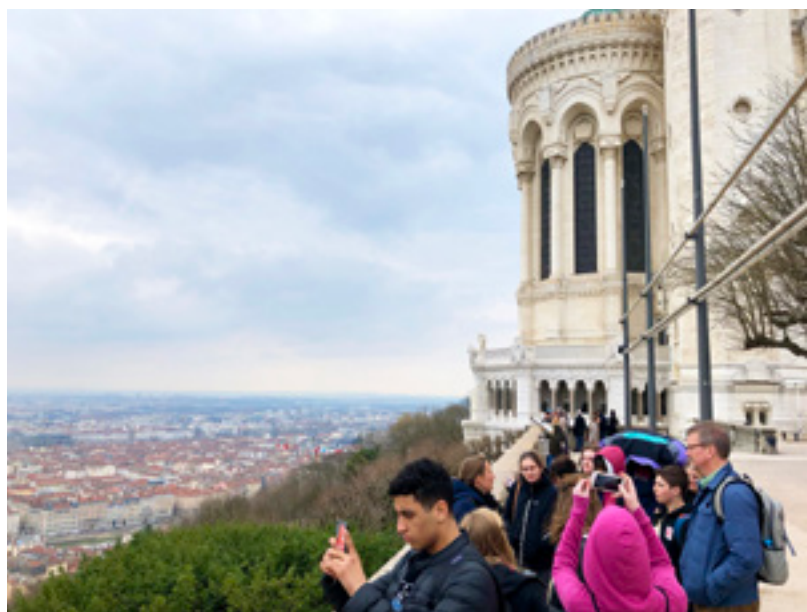
This advanced class centers on the rich history of francophone cultures and societies throughout the world. With a distinct focus on francophone countries outside of Europe, this course explores French colonization and its effects both historically and in the modern world. We explore the Négritude philosophical and artistic movement, as well as Franz Fanon and his relationship to the Algerian War of Independence. Delving into the arts of the francophone world, students improve their visual analytical skills while acquiring new subject-specific vocabulary. Recognizing how the lan-

guage varies from country to country, we investigate the accents, expressions, idioms, etc. that differ from the French that we may have been taught in school. The course enables students to gain a better understanding of these topics while becoming more proficient in French. We explore a variety of authentic materials, including recordings, videos, newspaper articles, and podcasts. The majority of the assessments are based on comprehension/expressions competencies in the target language (essays, projects, presentations, interviews, etc.). Grammatical structures are reviewed and applied in written analyses and well as in daily conversations. *This class is the most advanced French class. Enrollment in this course is by departmental recommendation.*

FRENCH TRAVEL ABROAD OPPORTUNITY: FRENCH EXCHANGE IN LYON

French students have the opportunity to make lasting friendships and immerse themselves in French culture and language by participating in French exchanges – a two-week exchange or a three-month exchange with the Cité Scolaire Internationale, Lyon. CSI has been our partner school in France for close to 22 years. The school is organized in different sections: Japanese, Italian, Polish, English, Spanish, Chinese, Arabic, German, and Portuguese. With the French school, our students get to meet friends from around the world as well as local residents who come from diverse ethnic backgrounds.

Our students can choose whether to participate in the two-week exchange program or the three-month exchange pro-



gram. Each exchange runs every two years. During the two week exchange program, the French students are first hosted in the fall by their American partners and attend Friends' Central, taking field trips to New York, Washington DC, and Philadelphia landmarks. The following spring of the same academic year, FCS students and their French teachers travel to France, where they spend four days in Paris and then two weeks in Lyon, staying with the CSI student they hosted in the fall. This exchange focuses on sightseeing and discovering a rich culture while being accompanied by FCS teachers. The three-month exchange program constitutes a true immersive experience. During this time, our students share the experience of a French family and get a deep knowledge of the French school system on their own. It is an intense and rewarding program as they learn to be independent travelers and how to adapt to a foreign environment.

FRENCH TRAVEL ABROAD OPPORTUNITY: QUÉBEC CITY

Every two years in the spring or summer, students can travel to Québec City for a French immersion experience. Students live with Québécois host families. On weekday mornings for two weeks, Students attend French language classes into which they are placed based on their level of French proficiency. In the afternoons, students and teachers sightsee in Québec City and in the region. Evenings are spent with host families, helping make meals, and sharing in their unique and proud francophone culture.

LATIN AND GREEK

LATIN I

Latin I employs a traditional, printed textbook, *Wheelock's Latin*, by Wheelock and LaFleur, as well as extensive online resources in Friends' Central's online learning management system, Canvas. Students become proficient in the structure and syntax of Latin and begin reading short pieces of original Latin by the end of the year. Cultural, artistic, and historical elements are included in the course as well, creating a strong foundation for reading and understanding the literary works left to us from the Romans.

LATIN II

The theme of Latin II is "Language, Structure, and Discovery." In addition to completing the basics of Latin grammar, students read and translate selections in prose adapted from various ancient Roman authors. The focus is on the develop-

ment of translation and grammar skills. By approaching Latin from a design point of view, students will discover much about their own language and about human languages generally. They can expect their own reading and writing to develop new levels of sophistication. Students explore ancient beliefs about power, justice, and violence that are encoded in language and story.

LATIN II ADVANCED

Advanced second year students complete their study of Latin grammar at an accelerated pace. The goal is to acquire and master the skills necessary to read and translate passages of text as written by the ancient Roman authors. Prose composition exercises are included in the syllabus and students will develop skill in sight-reading simple Latin prose.

LATIN III

The theme of Latin III is "Language, Power, and the State." Students will read selections of non-fiction prose by such authors as Cicero, Julius Caesar, and Pliny – contemporary, primary sources writing about critical issues of their time in the Roman world – examining the texts through the lens of political science. They will examine the use of language by individuals and by the state: how it can advance the aspirations of a civilization and how it can be weaponized. Students will analyze and explain an aspect of Roman government and politics relating to the authors we have read as a capstone project in the course employing various media in imaginative ways. They will explore cultural norms concerning justice and violence that are encoded in the texts we read.

LATIN III ADVANCED

Advanced third year students complete the curriculum of Latin III at an accelerated pace with more challenging assessments and increasing focus on the ability to translate passages at sight. Prose composition from English into Latin is included in the syllabus.

LATIN LITERATURE ADVANCED: CATULLUS AND OVID

In this course, students are introduced to both the love poetry of Catullus and the epic poem *The Metamorphoses* of Ovid. Students will read progressively more challenging tiers of Latin culminating in sections of the original poetry of both authors. They will work collaboratively to read and translate classic stories such as the tragedy of Pyramus and Thisbe, the father-son relationship of Icarus and Daedalus, and the



eternal love of Orpheus and Eurydice. They will also examine the literary style of Catullus and his tortured relationship with Lesbia. In learning to read the Latin of this great tradition, students will strengthen and solidify their knowledge of Latin grammar and vocabulary, build their skills in literary analysis and interpretation, hone their literary discussion skills, and develop their analytical writing and critical thinking skills. Every other year a trip is offered to Italy to deepen the cultural understanding of the Roman world.

LATIN LITERATURE ADVANCED: VERGIL **(offered in 2025-2026)**

The focus of this course is the translation of selections of Vergil's epic poem, *The Aeneid*. Students will work collaboratively to translate sections of this great epic, examining the ways in which reading the text in the original gives an understanding of how the author used language to create an impact on meaning. In learning to read the Latin of this great tradition, students will strengthen and solidify their knowledge of Latin grammar and vocabulary, build their skills in literary analysis and interpretation, hone their literary discussion skills, and develop their analytical writing and critical thinking skills. As they explore the *Aeneid*'s central themes and the Roman values expressed therein, they will become versed in the epic tradition and its influence on literature and the arts to this day.

LATIN TRAVEL ABROAD OPPORTUNITY: ROME

Every two years in the spring or summer, students can travel to Rome, Italy for a unique opportunity to learn more about the ancient Roman world through a hands-on archeological, architectural, artistic, and linguistic experience in ancient Roman sites. Students may visit archeological sites in Rome (e.g. The Roman Fora, the Colosseum, The Pantheon), in the vicinity (the preserved city of Ostia Antica), and in Campania (the spectacular sites of Pompeii and Herculaneum). The focus will be on the historical context of the texts that they have read, as well as looking at Roman inscriptions. There may also be visits to important museums with classical art (Vatican Museum, Capitoline, Galleria Borghese.) Students and two FCS chaperones will stay in hotels and enjoy the plethora of al fresco dining options that Rome offers in the evenings.

GREEK I

New in 2024-2025 school year

Greek I is offered to grade 11 and 12 students who are currently enrolled in Latin and who wish to immerse themselves in the study of Classical Antiquity. To that end, students who wish to begin Greek should remain enrolled in Latin. We approach Greek using the grammar/translation method of teaching, although reading skills will be introduced and nurtured from the beginning. Greek grammar is more complex than Latin grammar and requires 3 semesters to reach reading proficiency. By the end of the second year of study, students should be able to read selections from Plato and Homer with assistance.

SPANISH

SPANISH I:

INTRODUCTION TO SPANISH LANGUAGE AND CULTURE

In the first year, students develop their communication skills (listening, speaking, reading, and writing in Spanish) while exploring cultural, historical, and contemporary Spanish-speaking identities. The course is project-based, and materials include cultural discussions, music, skits, games, and video resources to practice, reinforce, and develop the grammar and vocabulary found in the online textbook and in worksheets assigned in the classroom. Later in the year, the curriculum includes the reading of easy readers like *Pobre Ana* and 10-minute films, allowing students to explore contemporary social issues in Latin America, Spain, and in the United States. One example is *Uno*, a film about a Spanish fisherman who finds the floating cell phone of an Arab migrant in a story that comments on the refugee crisis in Europe. In addition to the above, students will be exposed to the Latin culture through crafts, card making, tasting of traditional foods and more! This course provides a supportive atmosphere to help build community as students develop the confidence to communicate in Spanish while connecting to and learning about the Spanish-speaking world.

SPANISH II

This course begins with an extensive formal review of grammar, and students are expected to keep building on foundational vocabulary, verb forms, and grammar structures introduced in Spanish I. Emphasis is given to the development of listening and speaking skills, though much importance is given to developing a connection with the Latin



culture. Taught largely in Spanish, this class, like Spanish 1, is project-based. Material includes cultural discussions, skits, games, music, short books and videos all designed to teach Spanish language skills that can be used in everyday life conversation or while traveling. Students will record mini movies, create story books and write their own cartoon strips. Outings might include lunch at a Latin restaurant or visits to local Latin art exhibits, where the Latin culture can be experienced first hand. Students will also partake in the celebration of traditional South American festivities, such as Día de Los Muertos, by making their own Latin dishes in class (this year's winning recipes included our Mexican Tortilla Soup and our Pastelitos de Guayaba, both of which were highly lauded by students and parents alike!) and creating a variety of Latin crafts, such as giant Mexican flowers, Ojos de Dios tapestries and elaborate Mexican sugar skulls. Play and building a sense of community, of course, are extremely important elements of this class as well. Students will find themselves gaining fluency in Spanish as they play popular Spanish online and in person games, learn songs by artists such as Mana and Juanes and participate in a variety of community-building activities.

SPANISH II ADVANCED

This course is designed to challenge students who have demonstrated a high level of proficiency during Spanish 1, and is by invitation only. In this course, students expand – in an immersion-style environment – grammatical concepts presented to them during their first-year course. Besides building on listening and speaking skills, an increased focus is given to the acquisition of vocabulary and grammar skills through extensive exposure to reading and writing assignments. This course is project based and designed to encourage students to engage with one another as they become increasingly proficient with Spanish. To supplement the text, students will participate in activities that include one-on-one conversations with our Spanish partners in Latin America, cultural discussions, skits, games, music, short books, and videos. Students will work in groups to produce mini movies, create storybooks and even make YouTube vlogs. Outings might include lunch at a Latin restaurant or visits to local Latin art exhibits, where the Latin culture becomes very tangible to all. Students will also partake in celebrations of traditional Latin American festivities such as Día de Los Muertos, making their own Latin dishes during class. Dishes might in-

clude Mexican chicken tortilla soup, empanadas, pastelitos de guayaba, chocolate caliente estilo mexicano and more. We will also be working on our creative skills, designing traditional South and Central American crafts such as giant Mexican flowers, Ojos de Dios tapestries, and elaborate Mexican sugar skulls. Because play and building a sense of community are extremely important elements of this class, students will find themselves gaining fluency as they play popular Spanish online and in-person games, learn songs by popular Latin artists such as J. Balvin, Mana and Juanes, and participate in a variety of bonding activities. In the second semester, more time will be dedicated to watching movies in Spanish and analyzing these movies. An example of the type of movies students will be exposed to is *Frida*, which addresses Kahlo's unparalleled tenacity throughout her life, her immense creativity, and her highly unconventional views on sexuality and politics. ***Enrollment in this course is by departmental recommendation.***

SPANISH III

This course begins with an extensive review of the grammar principles covered in the previous years, followed by a study of advanced grammar structures. Students are expected to use their growing knowledge to communicate in different situations that are relevant to them such as asking for directions when traveling. For example, students use tourist maps of Seville, Spain or Mexico City, and they have to ask and give directions to different parts of the cities. When learning vocabulary about cars and learning how to drive, students watch videos and describe what they see in Spanish. The focus is on developing communicative skills. As students learn advanced grammatical skills, compositions are assigned to strengthen writing skills. Throughout the year, students read and/or watch a variety of short writings or short films about Hispanic history and culture, forming the basis for both written and oral production. They discuss the material to further their proficiency in reading, writing, and speaking.

SPANISH III ADVANCED

This course continues the immersion-style environment introduced in the previous years. After a thorough review of grammatical principles, advanced grammatical structures are studied and applied to oral and written communication. Special attention is given to vocabulary building, oral proficiency, and strengthening writing skills. Film units are used



to improve listening comprehension and promote class discussion. For example, students watch the movie *El Orfanato* in Spanish with Spanish subtitles. Students then discuss the movie in class, practicing grammar structures and vocabulary based on the movie. Students work individually to answer comprehension questions, and in groups, they talk about the movie, and they write their first [essay](#) in Spanish. Students do [creative projects](#) like designing a house using online software while learning vocabulary about the house. Students are expected to discuss Latino cultures through music, documentaries, films, short readings, and current events. As students learn advanced grammatical skills, compositions are assigned to strengthen writing skills. The second semester ends with the reading of an adaptation of *Lazarillo de Tormes*. Classes are focused on discussions of the reading entirely in Spanish. The book offers a great opportunity to introduce important historical events in Spain and do some literary analysis. The focus is the development of written and oral communicative skills to prepare the students for advanced courses such as Spanish History and Culture and Spanish Literature. Furthermore, throughout the school year each student is paired with an English student in Spain. The pairs record two conversations each month – one in English, which the Spanish student submits to their English teacher in Spain, and one in Spanish, which the FCS student submits to their Spanish teacher. *Enrollment in this course is by departmental recommendation.*

SPANISH IV

This course strengthens and reviews the language skills students have developed through their first three years of study. Students improve listening comprehension by listening to Latin music and watching films and shows in Spanish. For example, the Day of the Dead is explored through contemporary music, short videos, and the film *Coco*. Themes of social justice, gender roles, and class are explored and discussed in the series *Street Food Latino America* and accompanying articles. Grammatical concepts are reviewed to allow the students to clearly express their ideas. Writing is developed and focused on comparing and contrasting these cultural traditions and experiences. Student discussions are encouraged to bring their own stories and perspectives to the class while at the same time exploring the Spanish speaking world. Furthermore, each student is paired with an English student in Spain. The pairs record two conversations each month – one in English, which the Spanish student sub-

mits to their English teacher in Spain, and one in Spanish, which the FCS student submits to their Spanish teacher. *This course is open to students who have completed Spanish III.*

THE LATINO IMMIGRANT EXPERIENCE

The goal of this course is to familiarize students with the Latino communities in the United States. The course focuses on the different cultures and backgrounds of Latin American immigrants, as well as the economic, political and environmental conditions in their countries of origin. The general outline of the class is to study one country each month. All of the materials in the course are authentic and in Spanish. Spanish is spoken exclusively in the classroom, and all of the writing and research is in Spanish. Units include Puerto Rico, Mexico, Cuba, Venezuela, El Salvador, and Colombia. Course research includes watching documentaries from news sources such as *BBC Mundo*, and reading recent newspaper articles and websites from published journals such as *El Tiempo*. Towards the end of each unit, students are responsible for oral presentations in which they take a deeper dive into a more specific issue that affects the particular country being studied. For example, in the most recent Puerto Rico unit, students presented to their classmates on topics such as the continuing effects of hurricane Maria (2017) on Puerto Rico, the effects of COVID-19 on the island, and the debate within Puerto Rico about whether to become the 51st state of the United States, or whether to seek independence from its current status as a US territory. Every few weeks, the cultural curriculum is interrupted in order to review grammatical structures. Students also participate in a “video pen pal” program with our partner school in Sevilla, Spain, *La Academia Preuniversitaria*: every FCS Latino Immigrant Experience student is paired with an English student in Spain. The pairs record two conversations each month – one in English, which the Spanish student submits to their English teacher in Spain, and one in Spanish, which the FCS student submits to their Spanish teacher. *This course is open to students who have completed Spanish III and above.*

SPANISH: HISTORY & CULTURE OF LATIN AMERICA & SPAIN ADVANCED

This college-level Spanish course has as its focus Latin American identity with respect to its complicated relationship with Spain. One of the main units in the course is *La Reconquista*, the unique history of the Iberian Peninsula from 711-1492, during which Moors, Jews, and Christians coexist-



ed in what is now Spain and Portugal. The Reconquista unit includes an architectural study of the Cathedral Mezquita de Córdoba and a research project about the city of Toledo, where Moors, Jews and Christians lived together and thrived for centuries. (An example is the Sinagoga de Santa María La Blanca, a synagogue commissioned in the 12th century by Jews of Toledo, built by Moslem craftsmen, and later converted to a Catholic church). Many of the readings come from Carlos Fuentes' *El Espejo Enterrado* (*The Buried Mirror*), which he wrote in commemoration of Columbus' 1492 "discovery" of the Americas. We read from several primary texts, including *Historia de las Indias*, by Bartolomé de las Casas (1474-1566), the missionary who chronicled and fought against the Spaniards' oppression of indigenous people in Latin America. Other texts include short stories ("La Noche Boca Arriba" by Julio Cortázar) and movies (*Carmen*, directed by Carlos Saura). Additional major units in the course include a study of the Aztec and Inca cultures and what occurred in the 16th century when they confronted the Spaniards. We consider current events in Latin America in light of this complicated history. Grammatical structures are reviewed and incorporated into the literary analyses students write on the class readings. Furthermore, each student is paired with an English student in Spain. The pairs record two conversations each month – one in English, which the Spanish student submits to their English teacher in Spain, and one in Spanish, which the FCS student submits to their Spanish teacher. Students who take this course are encouraged to participate in the Spanish Exchange trip, a trip to Spain focused on the units of this course (see *trip description below*). *Enrollment in this course is by departmental recommendation.*

SPANISH LITERATURE ADVANCED: GABRIEL GARCIA MÁRQUEZ, ISABEL ALLENDE & MIGUEL DE UNAMUNO

This yearlong course is the equivalent of an intermediate college literature course covering selected works by two of the best-known Latin American authors, Gabriel Garcia Márquez (Colombia) and Isabel Allende (Chile) and by the Spanish poet, playwright, and philosopher Miguel de Unamuno. Gabriel García Márquez is considered by many to be the father of the genre known as magical realism, and as we delve into his short stories, students understand the genre and the humorous way Márquez uses it to portray his fictional Colombian town of Macondo and its characters with dignity and complexity. Isabel Allende, who describes herself as a "raging feminist," passionately rejects the idea that "women

should be more like men to achieve equality and success," and the Allende stories we read contain vivid representations of her feminism in her characters and in their conflicts. Unamuno, one of the most important European writers and philosophers of the 20th century, described his life as a perpetual struggle to create meaning in the face of our mortality. His plays, short stories, poems and novellas are often searing and poignant representations of this inner struggle. All works are read in their original form and analyzed in depth. The emphasis of this course is on the advanced development of critical analytical skills and oral discussion. Special attention will be given to written expression and vocabulary building. Grammatical structures are reviewed and applied to the written analyses. *Enrollment in this course is by departmental recommendation.*

SPANISH LITERATURE ADVANCED: JORGE LUIS BORGES, JULIO CORTÁZAR, AND ANA MARÍA MATUTE (offered in 2025-2026)

This yearlong course is the equivalent of an early intermediate college literature course covering selected works by the Argentinian authors Jorge Luis Borges and Julio Cortázar, and by the Spanish author, Ana María Matute. Borges, a polymath, is known for his brilliant stories that are like puzzles. In them, there are riddles and labyrinths, mysteries and red herrings - but all of his games are meaningful. They all connect to the philosophical questions he is inviting his readers to explore. Cortázar, a writer who was greatly influenced by Borges, also plays games with his readers, asking us how we really know what is real and what is not, is our consciousness as reliable as we think? Ana María Matute is a great contrast; born in Barcelona in 1925, she is a realist who writes about much of the suffering and upheaval Spaniards suffered during WWII and Franco's regime, but her main characters are children - and in Matute's writing, children are not sweet, innocent, sympathetic characters, but rather they are often cruel, cunning, and always complex, as is the adult world they navigate. We will read all works in their original form, and we will take the time to analyze the texts in depth. The emphasis of this course is on the advanced development of critical analytical skills and oral discussion. Special attention will be given to writing expression and vocabulary acquisition. Grammatical structures are reviewed and applied to the written analyses. *Enrollment in this course is by departmental recommendation.*





SPANISH TRAVEL ABROAD OPPORTUNITY: SPANISH EXCHANGE IN SEVILLA

Every two years since 1997, we participate in the Spanish exchange with our partner school in Sevilla, La Academia Pre-universitaria (La Preu). In the fall, approximately 20 students from La Preu come to Philadelphia and live with partner FCS Spanish students for three weeks. During the day, the Spaniards attend school, go to different landmarks in Philadelphia, and visit NYC and Washington, D.C. In the spring, the Friends' Central Spanish exchange students go to Spain. We spend the first four days sightseeing in Madrid and then take the high-speed train to Sevilla, where the Spanish families of the kids we hosted pick up our students and host them for the remainder of our stay. Though the Spanish History & Culture course is not a prerequisite, the trip to Spain is closely aligned with the curriculum of that course. Our sightseeing while in Spain focuses on its unique history between 711-1492, the eight centuries during which the Iberian peninsula was occupied by the Moors.

SPANISH TRAVEL ABROAD OPPORTUNITY: PERU TRIP TO CUZCO

Every two years in the summer, FCS Spanish students have the opportunity to travel to Cuzco, Perú. For two weeks, students stay in pairs with Peruvian host families in the evenings and at night. They work as volunteers at a children's clinic/orphanage in the morning ([Hogar Clínica San Juan de Dios](#)) and attend Spanish classes and visit historical landmarks in Cuzco in the afternoons. Though the Spanish History & Culture course is not a prerequisite, the trip to Cuzco is closely aligned with the curriculum of that course. Our sightseeing focuses on Inca culture and architecture and on what happened in Perú after Pizarro's arrival in 1532. After two weeks in Cuzco, students hike through the Andes for four days on the Inca Trail to Machu Picchu (pictured above at right).

GERMAN

GERMAN TUTORIAL

A beginning and intermediate German tutorial is offered. Sessions will be scheduled at the beginning of September after the tutorial group has been formed and will meet two to three blocks per week. Students will take advantage of some of the online language learning tools now available and will also be working with traditional printed materials, including short stories and grammatical exercises. *The tutorial will not be graded and will not appear on the transcript. Students will receive mid- and end-of-year special reports, and their participation will be noted in the school recommendations that accompany their college applications. Spaces will be limited.*



NON-DEPARTMENTAL ELECTIVES

Though dissimilar in content, the following courses are grouped together in order to clarify their place in a student's overall curricular plan. **These classes do not fulfill any department's graduation requirements.** Additionally, not all of these courses are offered every year.

INTRODUCTION TO COMPUTER PROGRAMMING

(fall semester)

This course is designed to offer an introduction to computer science. Students will learn the basics of computer programming along with the basics of computer science. The material emphasizes computational thinking, helps develop the ability to solve complex problems, and covers the basic building blocks of programming along with other central elements of computer science. It gives a foundation in the tools used in computer science and prepares students for further study in computer science. Topics include: 1) number calculations and data, 2) making decisions, 3) repetition and loops, and 4) graphics.

ADVANCED COMPUTER SCIENCE (spring semester)

This course furthers the ideas learned in Introduction to Computer Programming. After reviewing the basics of variables and data structures, the students will learn about the fundamental ideas of Object Oriented Programming: Encapsulation, Inheritance, Polymorphism, and Data Abstraction. The course culminates with a project using the Model-View-Controller (MVC) programming paradigm. Students

will demonstrate their understanding with short exercises and larger programming projects. Projects will include encrypting and decrypting secret messages, playing tic-tac-toe, and coding an implementation of mathematician James Conway's Game of Life. *Prerequisite: Introduction to Computer Programming or permission of the instructor*

INTRODUCTION TO COMPUTER HARDWARE

(fall semester)

Using the Arduino platform, students in this class will learn the basics of building and programming computer hardware. Students will learn how both analog and digital circuits work and will learn how to code using the Arduino programming language. Students will experiment with outputs such as LED lights, motors, and speakers and inputs such as buttons, switches, and various types of sensors. The course will be hands-on with students completing projects that blink messages in morse code, sense movement, and more. The class will culminate with a creative project of the student's choosing. *Prerequisite: Introduction to Computer Programming and Advanced Computer Science or permission of the instructor.*



WELLNESS COURSES AND ADDITIONAL REQUIRED COURSES

All students in grades 9 and 10 will be assigned to the following semester-long courses. In grade 9, Quaker School Life and Human Sexuality are separate, but thematically related, courses taught in the same block

GRADE 9

QUAKER SCHOOL LIFE (required) (fall or spring semester)

Part of Quaker School Life, Quakerism focuses on the basics of Quaker theology (including the principles behind Meeting for Worship) and the testimonies of truth, peace, simplicity, and equality. These concepts are tied to discussions of what it means to be a Friends school community.

Part of Quaker School Life, Human Sexuality explores the basic concepts in human sexuality essential to healthy adolescent development. Sexuality education in the Upper School is taught through the lens of social justice education. As such, the values of equity, integrity, stewardship, and respect guide decisions about course procedures and content. Major topics studied include: defining and developing healthy sexuality throughout the lifespan; sexual anatomy and physiology, body image, and care of the sexual systems; gender and sexual orientation as biological and sociological constructs; developing and maintaining healthy relationships; and the key role of deliberate, values-based decision making in healthy sexuality.

HUMAN SEXUALITY (required) (fall or spring semester)

This required class explores the basic concepts in human sexuality essential to healthy adolescent development. Sexuality education in the Upper School is an important part of our work in diversity, equity, justice, and belonging. As such, the values of equity, integrity, stewardship, and respect guide decisions about course procedures and content. Major topics studied include: defining and developing healthy sexuality throughout the lifespan; sexual anatomy and physiology, body image, and care of the sexual systems; gender and sexual orientation as biological and sociological constructs; developing and maintaining healthy relationships; and the key role of deliberate, values-based decision making in developing healthy sexuality.

GRADE 10

HEALTH (required) (fall or spring semester)

This required semester-long course focuses on many health-related topics that are bookended by mindfulness and yoga practices each week. Designed to provide factual information on areas which include mental health, human sexuality, drug awareness, nutrition, and physical fitness, this course also helps students explore how each of these issues affects their own personal development and decision-making. Additionally, students will be trained in CPR/AED for the Professional Rescuer with the objective of earning their certification through the American Red Cross.



ATHLETICS, WELLNESS, AND CO-CURRICULARS

All students are required to participate on an athletic team or in a co-curricular activity such as the performing arts or robotics during six (out of a total of 12 possible) seasons while in the Upper School. During seasons when students are not participating in athletics, the performing arts, or robotics, they will be enrolled in a wellness program, which will require a student to attend Monday through Friday at set times, either during the school day or after school for a minimum of two hours per week. Students, who opt for an off-campus and/or weekend wellness activity, will need to check in with the athletic department. All students will sign up every season for athletics, the performing arts, or robotics and, if not on a team, then students will sign up for either an Independent Athletic Credit or Wellness Education Credit.

INDEPENDENT ATHLETIC CREDIT

The Independent Athletic Credit (IAC-1) is an option for students who participate in a sport that Friends' Central School does not offer (i.e., rowing, ice-skating, fencing, horseback riding, ice-hockey, skiing, rock-climbing, etc.) and who participate at a level that is commensurate with a Varsity schedule (8-10 practice hours per week), including travel to competition.

The Independent Athletic Credit (IAC-2) is an option for those who play a sport that Friends' Central School does offer (i.e., basketball, golf, squash, soccer, swimming, tennis, dance, etc.) but who participate in the off-season at a level that is commensurate with a Varsity schedule (8-10 practice hours per week), including travel to competition. It is understood (with little exception) that students who choose this IAC will participate for Friends' Central during the season the sport is played.

WELLNESS EDUCATION CREDIT

All students will have opportunities to develop lifelong habits that will enhance their quality of life and will introduce students to a holistic approach to wellness. The following Wellness Education Credits are offered that will require students to participate in some activity, either on or off campus, for a minimum of two hours per week. In some instances, students can do their wellness program on the weekend. Students can choose one or several of the below on-campus options* OR choose off-campus:

- Pilates
- Yoga
- Community Block Activities*
- Lower School Farming or City Avenue Gardening
- Strength and Conditioning
- Walking or Running on the Track
- Off-campus wellness options could be for students who take a class, lesson, clinic, or go to a gym that might be more convenient for your schedule or in closer proximity to your home. Students who choose this option must provide contact information for their wellness program.

**Please note that on-campus options may vary from season to season.*

As an alternative to the Upper School athletics and wellness education curriculum, students may take Lifeguarding. Lifeguarding will be considered an athletic credit. This course must be scheduled with the Athletics and Wellness Department and will need to fit into a student's academic schedule. There is a possibility that the course will meet on nights and/or weekends. This lifeguard certification course is pass/fail. A student must be 15 years of age by the end of the academic year in order to participate and must pass a swim test to qualify for the course. If the student meets the standards set by the American Red Cross, the student will earn certification in CPR/AED for the Professional Rescuer and Lifeguard Training & First Aid.



FALL	WINTER	SPRING
Interscholastic Athletics Boys' & Girls' Cross Country Field Hockey Boys' Soccer Girls' Soccer Girls' Tennis Boys' & Girls' Water Polo Independent Athletic Credit Wellness Education: City Avenue Gardening Lower School Farming Pilates Strength & Conditioning Co-ed Volleyball (<i>intramural</i>) Walking or Running Yoga Community Block Activities	Interscholastic Athletics Boys' Basketball Girls' Basketball Cheerleading Boys' & Girls' Indoor Track & Field Boys' & Girls' Squash Boys' & Girls' Swimming Wrestling Independent Athletic Credit Wellness Education: City Avenue Gardening Lower School Farming Pilates Strength & Conditioning Walking or Running Yoga Community Block Activities	Interscholastic Athletics Baseball Golf Girls' Lacrosse Boys' Tennis Boys' & Girls' Track & Field Softball Ultimate Frisbee Independent Athletic Credit Wellness Education: City Avenue Gardening Lower School Farming Pilates Strength & Conditioning Walking or Running Yoga Community Block Activities
Performing Arts Drama: Fall Play Drama: Stage Art & Design	Performing Arts Drama: Winter Play or Musical Drama: Stage Art & Design	Performing Arts Drama: 9th & 10th Grade Play
Co-Curriculars Lifeguarding Team Manager Game Day Operations Sports Info./Photo Journalism	Co-Curriculars Lifeguarding Team Manager Game Day Operations Sports Info./Photo Journalism Robotics	Co-Curriculars Lifeguarding Team Manager Game Day Operations Sports Info./Photo Journalism

