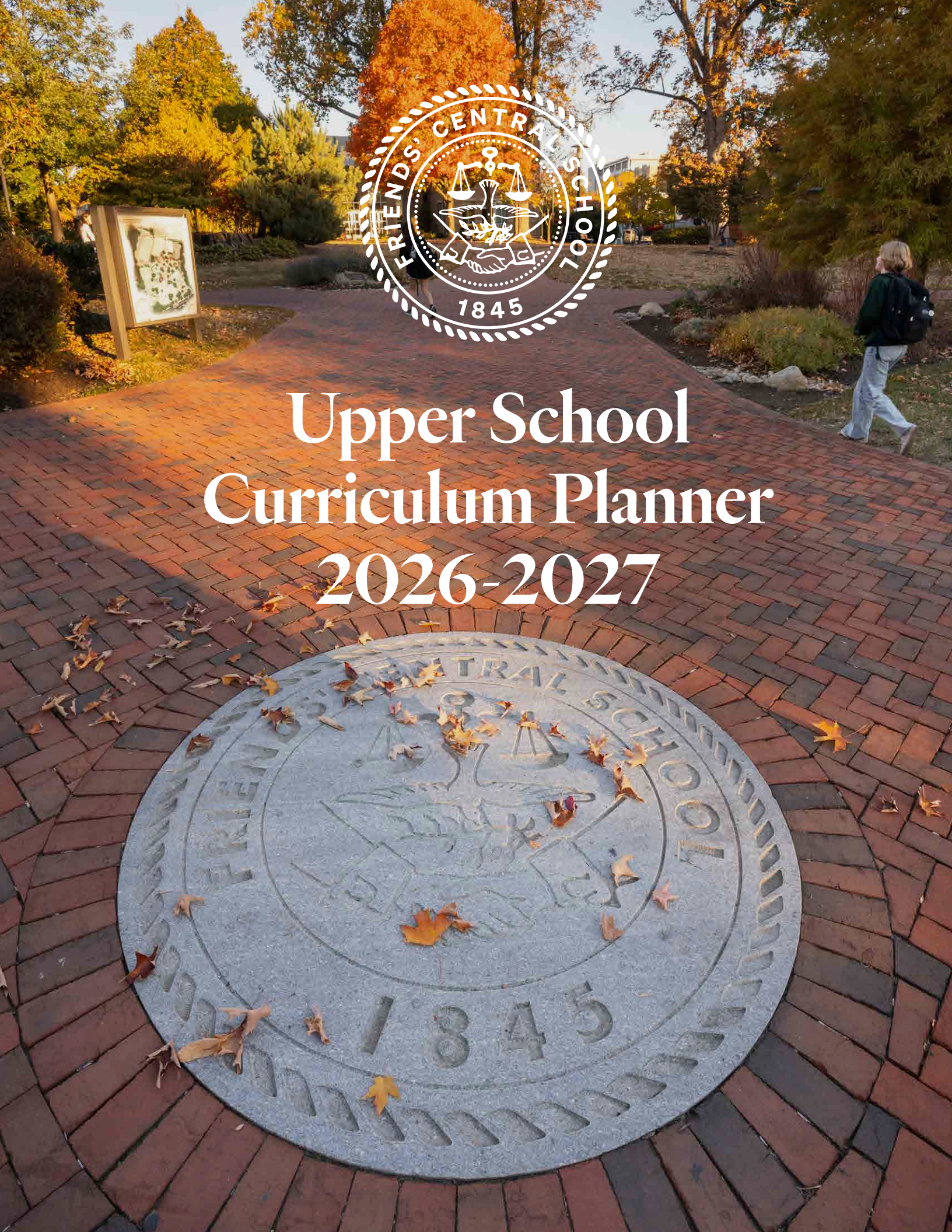


Upper School Curriculum Planner 2026-2027

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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 cultivate a perspective from enlightened academic analysis, guided by our Quaker Testimonies of simplicity, peace, integrity, community, equity/equality, and stewardship. Information literacy skills — the ability to locate, evaluate, and use information critically — are taught in the context of research assignments in the various disciplines. Required arts courses reflect our belief that creativity is an important complement to analytic thinking and valuable 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. We also believe that meaningful participation in clubs, athletics, arts, service, and intellectual experiences like our Core Teams are central to the Friends' Central Upper School experience. We ask that students consider off-campus commitments carefully to leave time for a full Friends' Central experience.

The grid on page six is a useful tool for planning students' Upper School academic program. Please note graduation requirements and keep in mind that not all elective course options are offered every year. In addition to academic requirements, all students must complete six seasons of co-curricular activities, including athletics, theatre productions as a performer or crew member, or the robotics team. Students are required to enroll in an on- or off-campus wellness program in seasons they do not participate in the above programs.

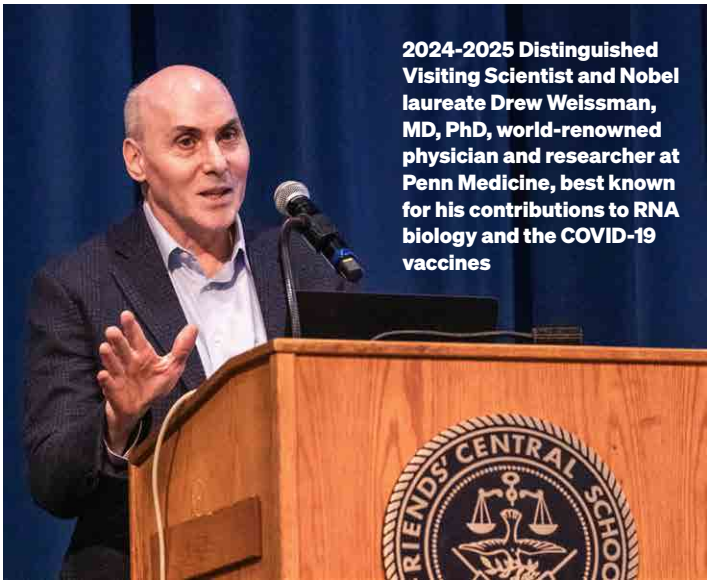
In most cases, students will be placed in the courses selected during the registration process. In the case of scheduling conflicts, students may have to choose between multiple courses they would like to take. Advanced courses and some other courses require instructor or departmental approval. Students 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 AND DISTINGUISHED LECTURE SERIES

Sparking intellectual passion and fostering a spirit of inquiry are central to our mission and vision. Through Core Teams and our Distinguished Lecture Series – both hallmarks of intellectual life at FCS – Upper School students come together in partnership with faculty and staff to take a deep dive into the work of a particular scientist, artist, scholar, and/or activist. Together, students and faculty 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. 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. Visitors then offer an evening talk open to students, families, and the public. 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, 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.



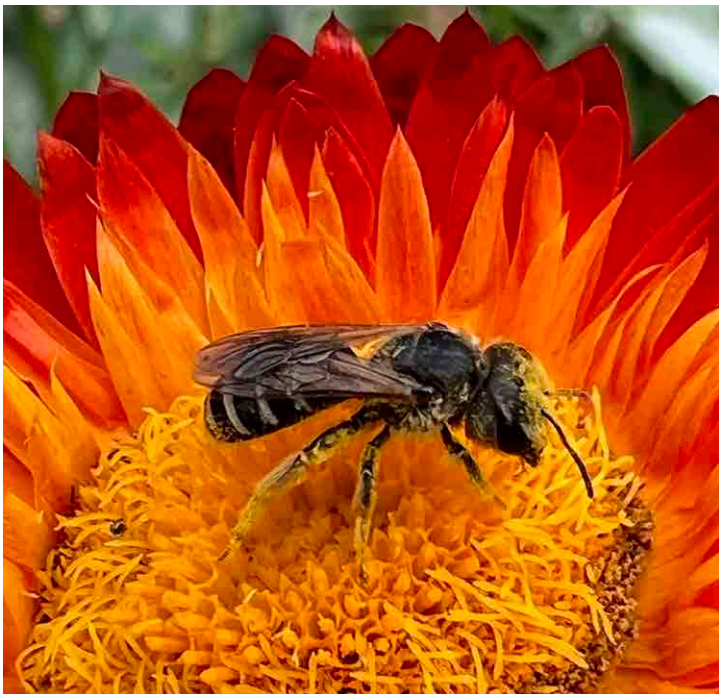
2024-2025 Distinguished Visiting Scientist and Nobel laureate Drew Weissman, MD, PhD, world-renowned physician and researcher at Penn Medicine, best known for his contributions to RNA biology and the COVID-19 vaccines

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. In the last few years, Friends' Central's Distinguished Visiting Scientist program has hosted, most recently, astrophysicist and MIT Professor Sara Seger, Nobel laureate and immunologist Drew Weissman from the University of Pennsylvania, and evolutionary biologist and fungal expert Anne Pringle from the University of Wisconsin. In that same time frame, the Distinguished Humanities Speaker program has welcomed Judith Giesberg, author and professor at Villanova University; Jon Grinspan '02, Curator of Political History at the Smithsonian's National Museum of American History; and Eve Troutt-Powell, MacArthur winning Professor of History at The University of Pennsylvania. 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 on the FCS website for more details.

NATURAL LANDS BIODIVERSITY PROGRAM





Each semester, the Science Department offers a certificate program in ecological monitoring and field research called "Natural Lands." This program is different from traditional course offerings and may be taken in addition to a six-class course load. It will not carry departmental course credit, but students who complete the semester will receive recognition and reports on their contributions and progress. Students may enroll in one or both semesters of the program. The Natural Lands program offers different opportunities and experiences in each semester.

The fall semester program takes advantage of the late summer and fall season to be outdoors as much as possible. Students engage with extensive field work studying insect pollination, salamander and toad populations, small mammal behavior, native wildflowers, bird migration, and fall fungi. The second semester program begins in January with two different offerings. The first is a three-day group activity that will center on lab research and molecular systematics, drawing in part from specimens collected during the fall weeks and international repositories of DNA sequence data. Additional data analysis from acoustic recordings and observations on the iNaturalist site will accompany the bench work and lab protocols. A separate but parallel two-day per week program will teach students how to be effective advocates for conservation and environmental protection. Students will learn how to participate in public comments on Federal regulations, how endangered and threatened species are listed and managed, and how to be effective letter writers and organizers in relation to local and national issues of concern.

All Natural Lands offerings are open to students in grades 10-12.

NATURAL LANDS FALL SEMESTER: Biodiversity Field Studies (three days/cycle)

NATURAL LANDS SPRING SEMESTER: Biodiversity Lab Studies (three days/cycle)

NATURAL LANDS SPRING SEMESTER: Advocacy and Activism (two days/cycle)

ROBOTICS

Friends' Central's competitive robotics team, the Earthquakers, offers students a collaborative engineering experience rooted in design thinking, creativity, and real-world problem solving. The Earthquakers meet year round, utilizing the tools and equipment in the Center for Innovation and Design. Throughout the fall, students train in technical skills and foundational engineering concepts. During the months of January and February, the team enters a focused eight-week design and fabrication period in which students work together to build and program a robot that competes in a global, sports-like challenge as part of the international FIRST Robotics competition program. The process mirrors professional engineering practice where students engage in research, iterative prototyping, systems thinking, and strategic decision-making while navigating the demands of teamwork and shared responsibility.

Students learn and apply the principles of the engineering design process from prototyping to testing, iteration, and final fabrication. Students develop proficiency in using CAD design software, coding using Java programming language, creating detailed 3-D models, managing complex assemblies, and collaborating in real time on shared designs.

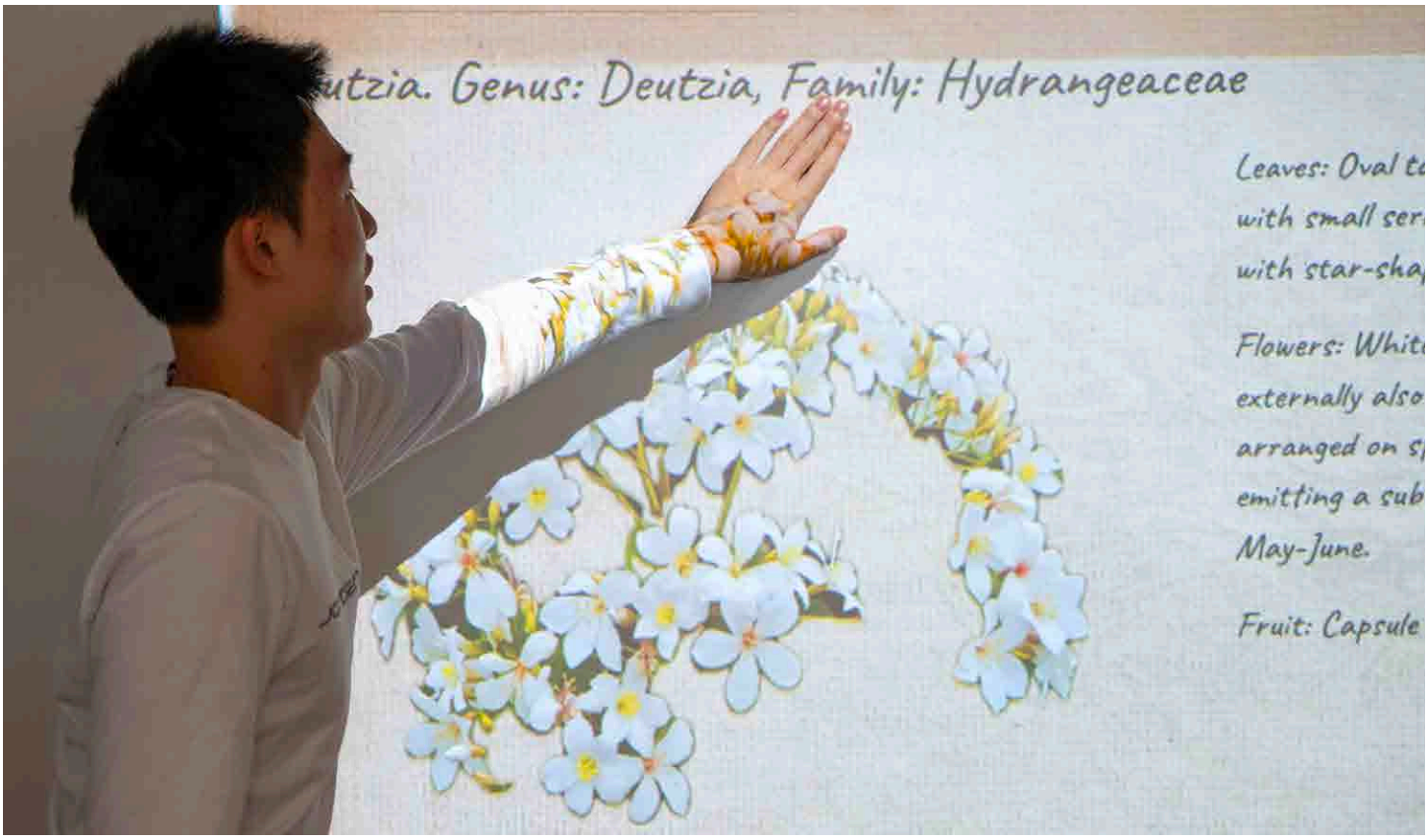
Earthquakers offers an intentionally interdisciplinary experience. Students contribute across mechanical design, programming, business operations, media, and community outreach. In addition to building the robot, students develop relationships with sponsors, develop fundraising strategies, and create materials that communicate the team's mission and progress to families, partners, and the broader community. The program cultivates collaboration, communication, project management, and time management, skills essential in any field. Experienced students mentor newer members, fostering leadership and continuity from year to year. Students are challenged to strive for excellence while supporting peers, sharing knowledge, and celebrating the accomplishments of others with the belief that innovation, competition, and kindness can coexist.







MAY TERM



A recent addition to our Upper School curriculum, May Term is an extension of our commitment to student engagement and innovative, immersive learning experiences. May Term courses, held over a six-day period at the end of the academic year, provide for interdisciplinary teaching and learning for grades 9-11 while building connections and relationships between students and faculty across grades and disciplines. These learning intensives offer the opportunity for students and faculty to delve deeply into topics that extend beyond the regular academic curriculum. In addition to offering students the chance to study a specific topic in depth, many May Term courses include a community component that engages students beyond the FCS campus. May Term courses begin after Memorial Day 2026 and culminate in a division-wide symposium held in June of 2026 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 collaborate across departments to offer courses that engage and challenge students to connect ideas and information in novel, meaningful ways. Classes offered have included the following: *A River Runs Through It: The Confluence of Architecture and Water*; *Crack the Code: An Introduction to Cryptology*; *Creative Writing and Photography*; *Using Data Science and Information Visualizations to Understand Major Issues Affecting Philadelphia*; *Exploring the Wissahickon*; *Philadelphia in Transit: The City through the Eyes of Writers, Filmmakers and Jazz Musicians*; *Philly Meets China: A Cultural Exploration*; and *Stirring the Revolution: Exploring Identity, Tradition, and Power Through the Lens of* Like Water for Chocolate.

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	Religions & Revolutions (World History)		United States History	
MATHEMATICS	6 semesters				
SCIENCE	4 semesters	Physics			
WORLD LANGUAGES	4 semesters of the same language				
WELLNESS	2 semesters	Quaker School Life Human Sexuality	Health		
ADDITIONAL COURSES		May Term	May Term	May Term College Counseling Seminar	College Counseling Seminar
TOTAL	**40 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, and with permission of the relevant teacher and the Dean of Students, Upper School students may add courses until September 30 (fall semester) and February 10 (spring semester). Students may also drop courses without them appearing on their transcripts until those same dates. After that time, dropped courses will be noted on the transcript with the designation WP (withdrew passing) or WF (withdrew failing). Priority for course changes will be given to students who must make a change based on graduation requirements or to ensure they are in the correct level of a course. A completed paper form with all appropriate signatures is required to process all course changes made after the first day of the semester. This form is available in the registrar's office.

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. Courses marked with an asterisk are not offered in 2026-2027.

ARTS

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

** Not offered in the 2026-2027 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
ENGLISH	**ENGLISH I** The Journey Begins: Becoming Ourselves *(required)*	**ENGLISH II** In Pursuit of Justice: The Self in the World *(required)*	**ENGLISH III** Literature of the United States: Negotiating Identity ***(required)*** Semester Seminars ***(required)*** Writers' Workshop Adv	**ENGLISH IV** Gods and Monsters: What Does It Mean to Be Human? ***(required)*** Semester Seminars ***(required)*** Writers' Workshop Adv
HISTORY	Religions & Revolutions ***(required)***	Contemporary Global History ***(recommended but not required)***	U.S. History ***(required)*** U.S. History Adv. ***(required)*** Capitalism & Consumption Creating Africa Intro. to Philosophy International Relations Modern Chinese History Modern United States History Oral History and the Oral Folk Tradition: Talking History* Philadelphia Black History from Reconstruction to the Present The Sociological Imagination: Social Inequality	Capitalism & Consumption Constitutional Identity Adv. Counternarratives: Centering Resistance Adv. Creating Africa Intro. to Philosophy International Relations International Relations Adv. Modern Chinese History Modern United States History Adv. Oral History and the Oral Folk Tradition: Talking History* Philadelphia Black History from Reconstruction to the Present The Sociological Imagination: Social Inequality
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.: Descriptive Statistics Statistics Adv.: Inferential Statistics Statistics Adv.: Data Science Intro. to Economics#	Precalculus Precalculus Adv. Calculus Calculus I Adv. Calculus II Adv. Statistics Statistics Adv.: Descriptive Statistics Statistics Adv.: Inferential Statistics Statistics Adv.: Data Science Intro. to Economics# Linear Algebra Adv. Multivariable Calculus

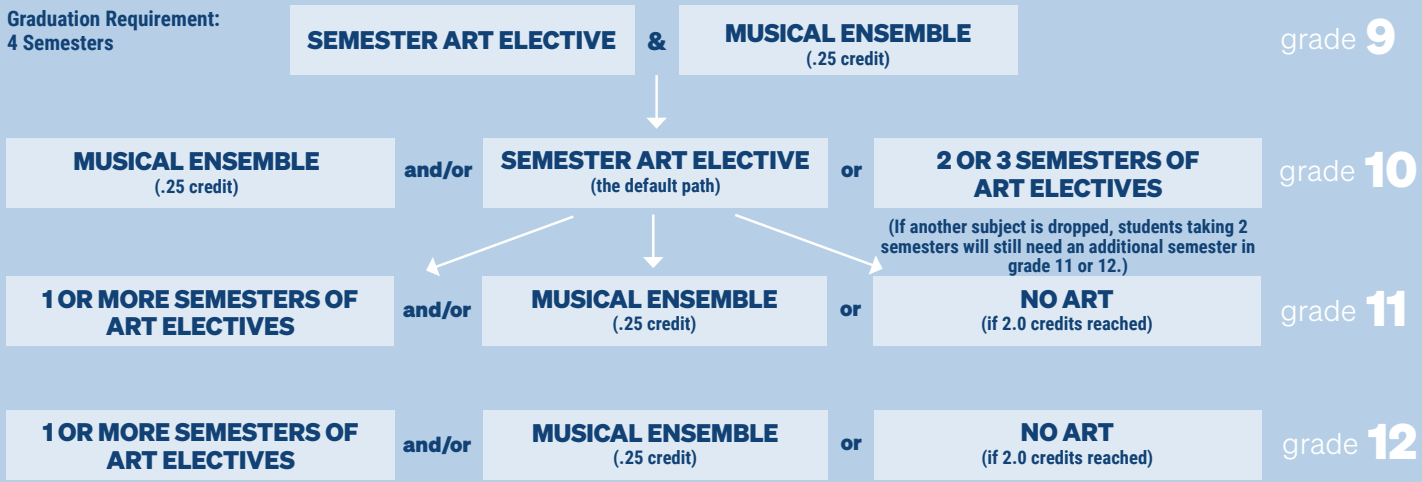
** Not offered in the 2026-2027 school year*

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 Math Intensive	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 Physics II Adv. Physics III Adv. Astrophysics Physics III Adv. Electricity and Circuits Physics III Adv.: Magnetism and Waves Physics: Mechanics	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 Physics II Adv. Physics III Adv.: Astrophysics 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) I* French* Latin* Spanish*	Chinese (Mandarin) II* French* Latin* Spanish*	Chinese (Mandarin) III* French* Latin* Spanish*	French* Latin* Spanish*
NON-DEPT. COURSES	Introduction to Computer Programming May Term ***(required)***	Introduction to Computer Programming May Term ***(required)***	Introduction to Computer Programming Advanced Computer Science May Term ***(required)*** College Counseling Seminar ***(required)***	Introduction to Computer Programming Advanced Computer Science Topics in Psychology College Counseling Seminar ***(required)***
WELLNESS COURSE (REQUIRED)	Quaker School Life ***(required)*** Human Sexuality ***(required)***	Health ***(required)***		

** All World Languages classes have regular and advanced levels.*

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 four semesters 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 (equivalent of two semesters) can go towards fulfilling the four semester 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 (equivalent of two semesters) of the four semester art requirement can be earned through music ensembles.

ART ELECTIVES FOR 2026-2027

MUSIC

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 the USA. 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.

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 choreographers. 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.

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 numeralanalysis 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 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

ART & ACTIVISM ***(fall or spring semester)***

In this one-semester 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.



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 focuses on mastering the technical side of the medium and 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, shutterspeed, 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

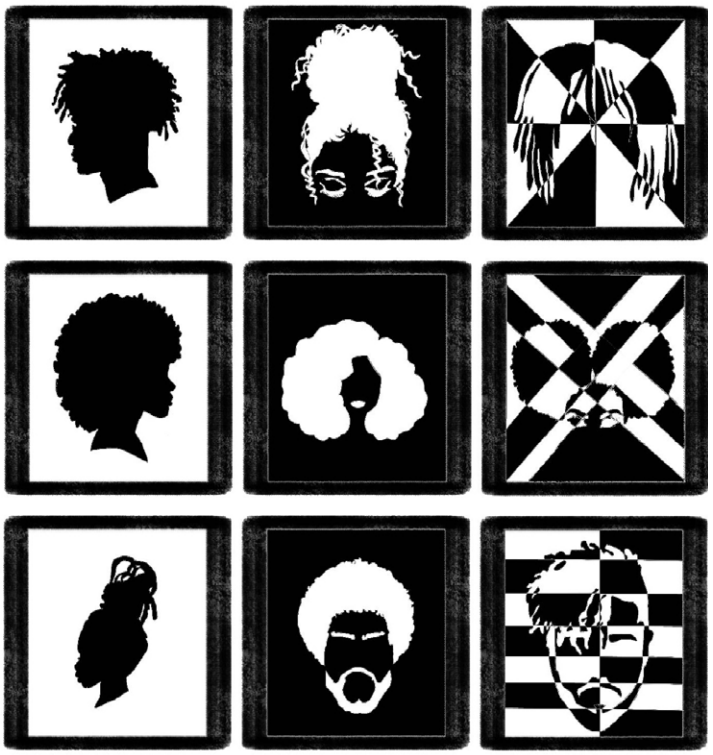


FIBER ART FABRICATIONS *(fall or spring semesters)*

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.

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. This is a studio-based course and, as a result, the majority of class time will be spent producing art although there will be demonstrations of techniques and programs as needed. 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: DRAWING AND PAINTING
(full year, unless with the permission of instructor)

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)

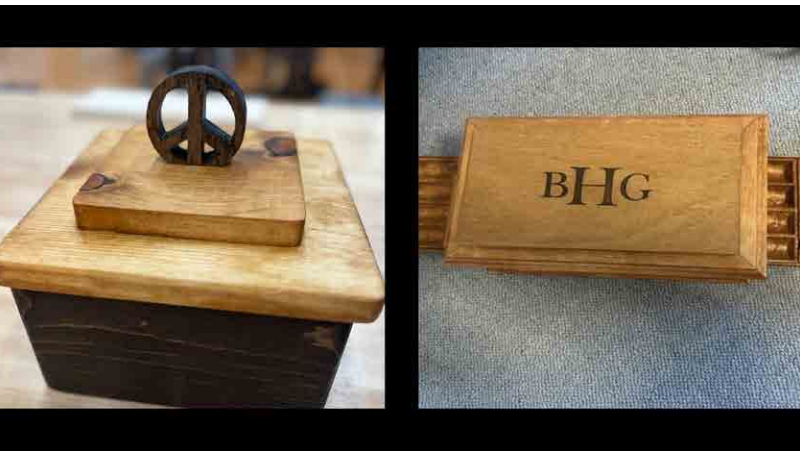
Building off of observational drawing and painting skills learned in Studio Art I, students in this course will push into more advanced material concepts with opportunities for expressive and personalized subject matter. Students can expect to learn color theory, palette-knife painting techniques, self-portraiture, 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.*

STUDIO ART III: CONTINUING THE JOURNEY ***(full year)***

This course is an advanced art class open only to students who have taken Studio II. It runs concurrently with the Studio II class and is an opportunity for students to build portfolios and explore artistic direction in a more independent way. Students will be expected to maintain a rigorous sketchbook practice and complete ambitious self-directed projects. *Prerequisite: Studio II.*

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 Wearable Art: Connections to CID or Wearable Art Pattern to Precious Metal Clay in any order, individually and if they choose they may take both semesters although they cannot repeat the same course. 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 and 10 and fulfills one semester of the four-semester arts requirement.

DEVISED THEATRE ***(fall semester)***

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.

TOPICS IN THEATRE ***(fall or 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.

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 I ***(fall or 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 and character development through 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.



ART ELECTIVES (NOT OFFERED IN 2026-2027)

MUSIC

FUNDAMENTALS OF SINGING ***(not offered in 2026-2027)***

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 as an ensemble in class, and there will be opportunities for solo singing for any interested class members. 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 ***(not offered in 2026-2027)***

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 (pa-

per & 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: CONNECTIONS TO CID

(not offered in 2026-2027)

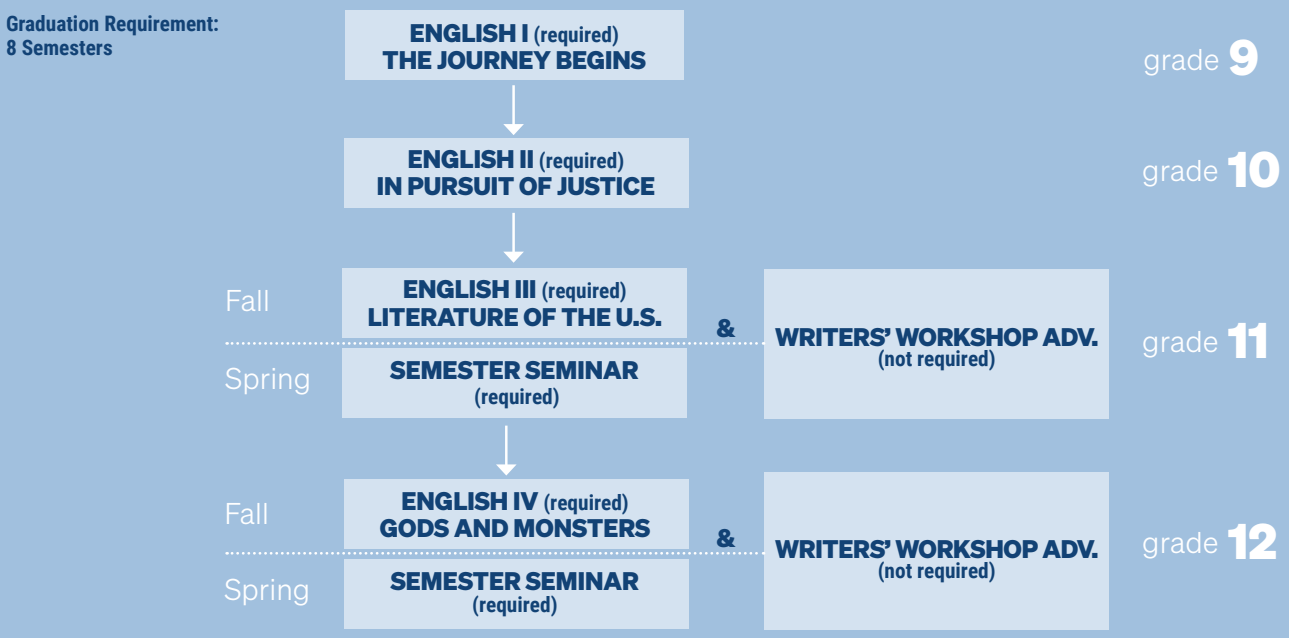
Wearable Art: Connections to CID is a studio art course that explores a variety of media and approaches to creating wearable art, predominantly jewelry. From jump rings to earrings designed on the computer and cut in the CID with the laser cutter to explorations in silver, this class will introduce students 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: Connections to CID or Wearable Art: Pattern to Precious Metal Clay in any order, individually and, if they choose, they may take both semesters although they cannot repeat the same course. Please note, this class runs in alternating years with Wearable Art: Pattern to Precious Metal Clay. There will be a small lab fee to cover the cost of precious metal clay.

THEATRE ARTS

ACTING II *(not offered in 2026-2027)*

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 have 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.

ENGLISH



The goal of the Friends' Central English Department is to engage students in engaging, discussion-based courses that foster critical thinking, analytical reading, and effective written and oral communication. Through the study of literature, students explore enduring questions to better understand themselves and the world around them. Writing is used as a primary tool for developing clear, critical, and analytical thinking. Students will also be asked to create and deliver presentations. This program builds the necessary high-level skills our students need as it builds their confidence as readers, writers, speakers, and thinkers.

Ninth 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, some of which are advanced, in the spring. The curriculum includes both canonical and contemporary texts. The department curates a curriculum in which students can recognize their own experiences and learn 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, 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), and *Focus* (Friends' Central's newspaper).

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 and fictional narrative and poetry) and interdisciplinary skills (as with the Symbolic Object Project) to explore their values and their roles in their families and communities. Texts include *The Piano Lesson*, *The Catcher in the Rye*, *Homegoing*, and *Macbeth*, among others. Students will read a diverse selection of poems and short stories that have in the past included Ken Liu's "The Paper Menagerie," ZZ Packer's "Brownies," and Junot Diaz's "Fiesta, 1980."

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 develop elements of their individual writing voice, including tone, a variety of rhetorical devices, and unique structure. Ultimately, this course prompts students to envision the world they want to inhabit. Texts include *In the Time of the Butterflies* (summer), *Of Mice and Men*, *Antigone*, *Things Fall Apart*, *Twelfth Night*, *The Interpreter of Maladies*, *A Lesson Before Dying*, and *The Things They Carried*, among others, along with poetry, short stories, and 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 *The Metamorphosis*.

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. A portfolio of work produced during the class, along with the journal 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 examine classic literary essays by Joan Didion, Zadie Smith, Jo Anne Beard and others and explore a variety of nonfiction genres to develop their craft as writers.

WRITERS' WORKSHOP ADVANCED: CREATIVE WRITING *(spring semester)*

In the spring (Creative Writing) students study fiction and poetry, often working across or outside of genre. Students will examine classic and contemporary short works of fiction and poetry from a craft perspective – including pieces by Ernest Hemingway, Elizabeth Bishop, Gwendolyn Brooks, Lydia Davis, and Jericho Brown, among many others – and may select an additional mentor text from the core English curriculum for a longer writing project. Students will regularly partake in traditional craft workshops of each other's writing, and co-create curriculum based on their own interests.

ENGLISH SPRING SEMINARS OFFERED IN 2026-2027

In the second semester, students in grades 11 and 12 select a Semester Seminar. These required classes, focused on particular themes or genres, give students a chance to explore an aspect of literature in depth.

The English Department offers three advanced spring seminar classes for students passionate about and committed to the study of literature at a high level. These courses, which move at a faster pace than other sections, require more from students in the way of reading, writing, and daily preparation and participation. In order to qualify for an advanced section a student must:

1) have earned an A- or better in both semesters for rising 12th graders or an A- or better end-of-year grade for rising 11th graders;
2) be recommended for an advanced section by their current English teacher, and
3) complete a writing sample here at school, which will be evaluated by the Department.

LOVE IN THE ANTHROPOCENE (ADVANCED)

While climate change is technically the force that brings us together, this is ultimately a course about home – why we yearn for it, why we leave it, what it means to watch it change. In recognition of the scale of influence human beings have had on our home planet, many scientists have proposed a new term for our present geologic era: the Anthropocene. The implications stretch far beyond weather patterns, demanding we think across disciplines and genres to grasp what's at stake.

This advanced course takes a rigorously interdisciplinary approach to climate change. We will study environmental nonfiction alongside the emerging genre of "cli-fi" or climate fiction, examining how artists and thinkers from various fields are reckoning with our planetary moment. Above all, we will challenge each other to engage courageously with the crisis at hand, considering what it means to come of age, live, die, and love in the Anthropocene.

Major texts may include *Braiding Sweetgrass* by Robin Wall Kimmerer (nonfiction), *A Children's Bible* by Lydia Millet (dystopian fiction/satire), *Exit West* by Mohsin Hamid (speculative fiction), and *Mobility* by Lydia Kiesling (satire). We will also study selected short stories, essays, and poems by writers including N. K. Jemisin, Meera Subramanian, Kanishk Tharoor, Ashley Shelby, Jamaal May, June Jordan, W.S.

Merwin, Ada Limón, and Wendell Berry, along with the occasional art piece, podcast, or film.

SHORT, SHARP, SHOCK: AN INTRODUCTION TO THE NOVELLA (ADVANCED)

Variously described as a short story lacking self-control or a novel pared down to its essence, the novella is an underappreciated literary form that takes advantage of the compression and precision of its briefer cousin while maintaining some of the broader possibilities afforded by a longer narrative. For our purposes, the nimble novella will allow us to move easily between authors, genres, and time periods. In addition to familiarizing ourselves with a wide range of stories and writers, we will listen for ways in which these pieces may speak to one another and their shared form. Novellas studied will include Edith Wharton's *Ethan Frome*, an American classic of snow, sledding, and silence; *The Strange Case of Dr. Jekyll and Mr. Hyde*, Stevenson's celebrated horror story of the duality of human beings; and *Convenience Store Woman* by Sayaka Murata, a contemporary account from Japan of a woman fighting against conformity in order to find happiness. Other texts may include *The Ballad of Black Tom* by Victor LaValle; *West* by Carys Davies; *So Long, See You Tomorrow* by William Maxwell, *Notes from Underground* by Fyodor Dostoevsky, and *Foster* by Claire Keegan, widely considered to be the contemporary star of the novella.

THE WORLD INSIDE THIS ONE: LITERATURE OF DREAMS (ADVANCED)

Surrealist poet Paul Eluard writes, "There is another world, but it is inside this one." In some ways, our subconscious experiences, particularly our dreams, are, in fact, worlds within us. Why are these worlds special, frightening, delightful, satisfying, compelling, strange? How do writers build dreamlike worlds of language to help us see into this other dimension, and what might we find there? This course will explore what literature has to say about our dreams and why literature itself is like a dream. We will begin with some theories of the subconscious and collective unconscious, as well as the study of some literary and artistic movements including Modernism and Surrealism that have sought to access and represent these experiences. Possible texts include Virginia Woolf's *To the Lighthouse* and Samanta Schweblin's *Fever Dream*. We will also study works by Shakespeare and the Romantic poets, as well as 20th century to contemporary poetry by Lucille Clifton, Jack Spicer, and Jean Valentine, among others. Along with nightly reading and critical writing, this course will include a significant creative writing element: students will keep dream journals and write their own poetry and stories.

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?*, LaValle's *The Ballad of Black Tom*, 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.

CONTEMPORARY AMERICAN DRAMA

Often, when we think about great drama, we think Shakespeare or Sophocles. We travel back in time instead of looking at our present moment. This course will look at the drama being written in the now, the contemporary drama of America that has been gracing the stages, winning awards, and capturing the voices of our modern day. We will study how contemporary dramatic literature speaks to the history, place, and societal issues of these United States. From the battle with PTSD of veterans returning from war to the economical impact from the loss of factory work in once vibrant cities, the playwrights we will read, study, and hopefully see staged, are tackling important, relevant, and meaningful topics. Some of the authors we might read include Lynn Nottage, Sarah Ruhl, Martyna Majok, Branden Jacobs-Jenkins, and Rajiv Joseph.

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.

Citizen: An American Lyric by Claudia Rankine, *Life on Mars* by Tracy K. Smith, and *Night Sky with Exit Wounds* by Ocean Vuong. Additionally, new collections of poetry may be chosen because they have recently won prominent awards, such as the Pulitzer Prize or the National Book Award.

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*.

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, exploring how the supernatural in fiction reflects 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 early works in the Gothic genre often exoticized or "othered" people from outside of western Europe, BIPOC authors and women have taken advantage of its subversive potential to explore the concept of otherness, marginalization, and the abuse of power. We begin with the origins of American gothic in *The Fall of the House of Usher* and other stories by Edgar Allan Poe, *The Yellow Wallpaper* by Charlotte Perkins Gilman, and ghost stories by Edith Wharton, followed by Shirley Jackson's classic novel of gothic horror *The Haunting of Hill House* to understand the genre before moving to 21st century texts, including stories, films, and poems.

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 include *The Vanishing Half* by Britt Bennett, *Passing* by Nella Larsen, *Call Us Dead* by Danez Smith, essays by James Baldwin, *Parable of the Sower* and *Bloodchild and other stories* by Octavia Butler, *The Color Purple* by Alice Walker, *Stick Fly* by Lydia Diamond, *Kill Move Paradise* by James Ijames, *A Raisin in the Sun* by Lorainne Hansberry, poetry by Langston Hughes, Countee Cullen, Richard Wright, Gwendolyn Brooks, and Rita Dove, and films like *Get Out* directed by Jordan Peele and *Moonlight* directed by Barry Jenkins.

THE ODYSSEY

The main text for this course is the 2017 translation of Homer's *Odyssey* by Emily Wilson, professor of Classics at the University of Pennsylvania. We also read a "cover" of the original song: Madeleine Miller's *Circe*, published in 2018, a first person retelling of the story from the point of view of one of Homer's characters, Circe.

The Odyssey is a traditional folk song captured in written language. Like all traditional songs it propels itself forward using familiar tropes such as the disguised return home, the desecration of the guest-host relationship, contests of strength, the fidelity of a spouse, the treachery of the gods, and the place of

song itself in the culture. It is a fun book to read, an easy book to write about, a fable, a legend, a myth, a grim bedtime story.

That an episode of Homer's epic has been expanded into Miller's *Circe*, a commercially successful book written in English in the third millennium, is a testament to the persistent love that we have for these stories and for this kind of storytelling. *Circe* is popular fiction. It has aspects of youth fiction. It is a thriller – full of intrigue, excitement, romance, and terror – just like the original. Miller steals wholesale from the original. All of the characters and elements are the same. But now the voice comes from the 21st century: it is written in the first person, it is confessional, it is psychologically dense, and in this version it is the voice of a woman.

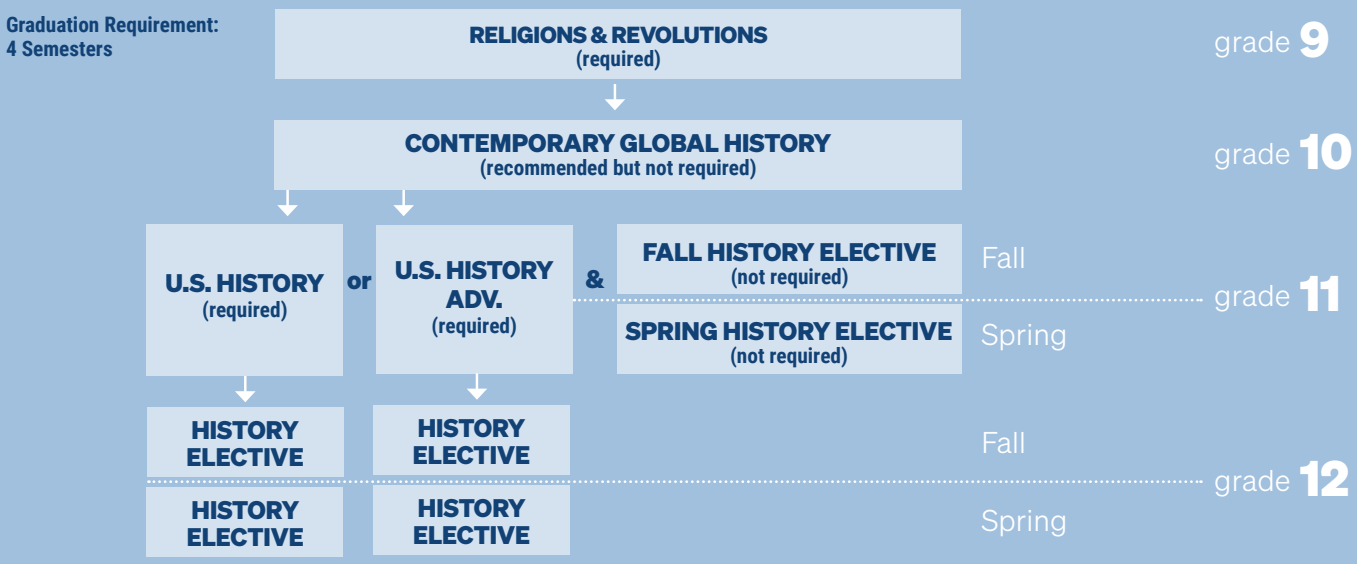
SKEPTICISM AND SPIRITUALITY

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 about such belief? 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 include *The Book of Job*, Jon Fosse's *A Shining*, James Baldwin's *Go Tell It on the Mountain*, Herman Hesse's *Siddhartha*, and Flannery O'Connor's *Wise Blood*, as well as poetry by Arnold, Dickinson, Donne, Gibran, Hopkins, Larkin, Rumi, and Wright. In addition, we will learn about existential philosophy through the lens of various authors, such as Kierkegaard, Nietzsche, Sartre and Camus, and explore the narratives of near death experiences

WATCH WHAT YOU READ

This course pairs poetry, short stories, essays, and novels with film to examine the various ways writers and auteurs express their ideas, evoking our emotions and deepening our understanding of the human condition. The focus of study will be on personal and analytic responses to what is read and watched to develop students' understanding and appreciation of the written word and visual media. To that end, students will develop their vocabulary related to cinematic expression, employing such terms in their responses to what we watch. In most cases, the class will study literature that has been adapted to film. Alternatively, literature will be read and then compared to a film that expresses shared themes. Students will view the films on their own time (i.e., not in class), bringing their observations and insights to class discussions, just as they would with the literature of any other English class. Possible texts include Annie Proulx's short story "Brokeback Mountain" and the film adaptation, directed by Ang Lee; Ted Chiang's short story "The Story of Your Life" and the film adaptation; *Arrival*, written by Eric Heisserer and directed by Denis Villeneuve; Charles Yu's novel *Interior Chinatown* and the TV series adaptation; and various selected works by black authors (i.e., essayists Baldwin, Coates, Kendi, Morrison, and hooks; and poets Claudia Rankine and Jericho Brown) paired with Spike Lee's *Do the Right Thing*.

HISTORY



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 patterns of conflict and peacemaking throughout the human experience. We ask our students to make connections between the past and the world they now inhabit and to ponder how that informs how we can respond to the world today.

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, International Relations, 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*

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.

UNITED STATES HISTORY ADVANCED*

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.*

***One of the above two US History courses is required in 11th grade.**

HISTORY ELECTIVE COURSES

All history electives are one semester long. Eligibility for advanced history courses requires departmental approval. Students' performance in previous history courses and an in-class writing exercise are considered. 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 use, 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, food, 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 papers regarding the Court's jurisprudence. By studying the precedent and highlighting changes over time within 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.

COUNTERNARRATIVES: CENTERING RESISTANCE ADVANCED *(fall semester)*

How are stories told? How does the way they're told affect our perception of the characters in them? In this course, students will consider what they've been taught about historical events, groups, and people, and how those narratives might uphold existing power structures. Through primary sources, such as memoirs, newspaper articles, and oral testimonies, and secondary sources that challenge dominant narratives, students will learn about those who have historically been taught as one dimensional victims in a way that emphasizes their multidimensional power and agency. The goal is not to determine what instances of resistance were "successful" or not but rather the hopes, dreams, strategies, and goals of those who resisted (and continue to resist) oppression. This course will culminate in an independent research project on a specific instance of oppression and resistance that will act as a proposal to be included as the next case study in the course. This course builds on what students have studied in Contemporary Global History and the research methods they learned in US History Advanced.

CREATING AFRICA: EUROPEAN RACISM, THE DIASPORA, COLONIALISM, AND IDENTITY *(spring 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.

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 *(spring 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 ***(fall 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.

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 UNITED STATES HISTORY ***(This course is offered in both semesters, ADV in fall semester only)***

This course is a comprehensive survey of topics in US History from 1950 to the present day. Building upon the progress of 11th grade, we will explore the economic, cultural, social, and political trends that have contributed to modern US society. We will ground our course in the concepts of assimilation, nativism, and "Americanness" as we study how US immigration, US foreign policy, and the changing face of the US since 1950 influence our world in familiar and distinct ways. Then, we will examine case studies of social movements to analyze moments of progress, backlash, and what it means for a social movement in the US to "succeed." Finally, we will analyze the extent to which the Constitution's vision of democracy and separation of powers has come true today. Through this lens, we will explore developments in voting rights, the changing powers of the presidency, and relevant cases in the Supreme Court.

The advanced version of this class will emphasize independent primary source research and writing. The regular version of this class will be more guided towards current events analysis and whole-class discussion.

ORAL HISTORY AND THE ORAL FOLK TRADITION: TALKING HISTORY ***(not offered 2026-2027)***

How do we find the lives of the regular folks who don't make it into the history books? This course introduces students into the craft of oral history, including how it developed as a field, how digital tools have reshaped what we can record and preserve, and the ethical questions that come with asking real people to tell us their stories. We'll read powerful examples of oral history in action, including work by Studs Terkel (*The Good War?*), Isabel Wilkerson (*The Warmth of Other Suns*), selections from the WPA Narratives, and Donald Ritchie's Doing Oral History: A Practical Guide to ground us in both theory and practice. We also will take some time to examine how storytelling, music, craft, and other forms of traditional expression have been vital ways for communities to pass down knowledge, values, and historical consciousness outside of formal institutions. We will do this in part by highlighting the work of Alan Lomax.

Students will keep journals, practice interviewing and listening skills, and develop a solid research base on a chosen topic before ever turning on a camera. Each student will then design, conduct, and analyze an original oral history interview with a narrator whose life spans the mid-20th to early 21st centuries about a period of history they lived through, producing both a short research paper and a larger final project that weaves together text, audio, and/or video. The course culminates in an archivable digital presentation that preserves these narratives for a wider community, an attempt, on a small scale, to broaden the historical record and honor the lives that rarely make it into the history books.

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

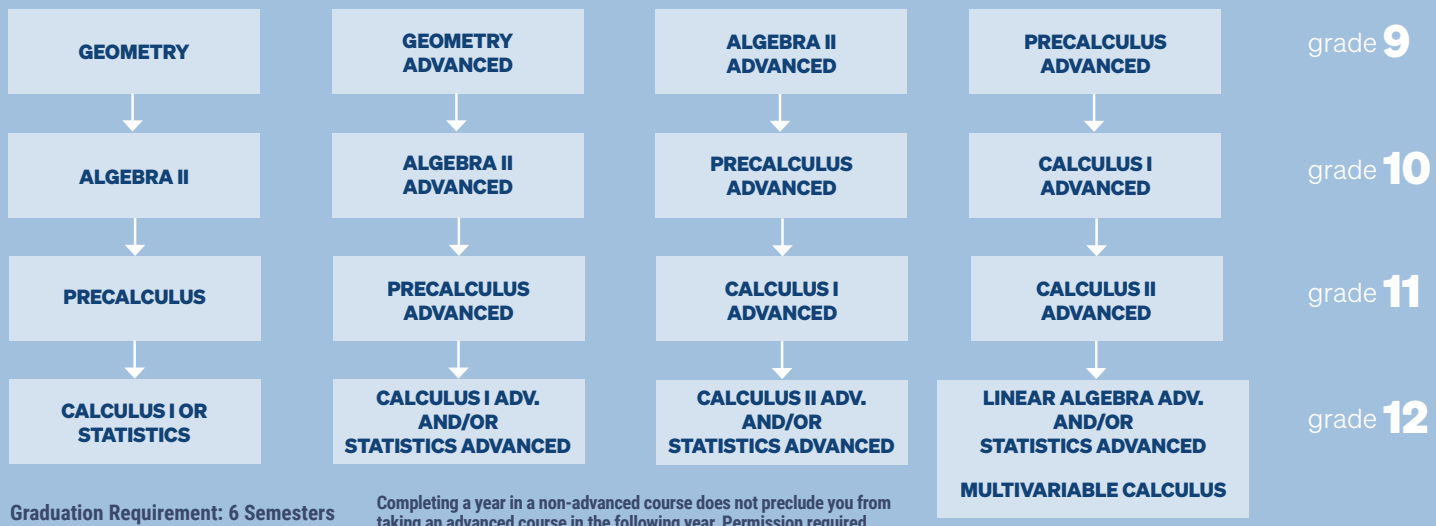
This course focuses on the agency of the Philadelphia Black community to define and redefine itself as it addressed political, social, economic, and racial concerns in key moments from the period following the passage of the 13th, 14th, and 15th Amendments to the present day. Building on knowledge they 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: SOCIAL INEQUALITY ***(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.

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.



Graduation Requirement: 6 Semesters

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

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-word 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

Algebra II builds on students' understanding of algebraic relationships while strengthening mathematical reasoning and problem-solving skills. Topics include solving equations and inequalities, functions and function notation, linear and quadratic functions, systems of equations, polynomial operations, exponential and logarithmic functions, and transformations of functions. Throughout the course, students are encouraged to recognize patterns, make connections among multiple representations (algebraic, graphical, and contextual), and explain their thinking clearly. The course emphasizes depth of understanding over speed, with intentional pacing and support to help students build confidence and flexibility as they prepare for future mathematics coursework. *Prerequisite: Algebra I*

ALGEBRA II ADVANCED

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

The focus of the course is on simplifying algebraic expressions, solving equations, and understanding functions. These topics are explored at a greater depth and more complex level than in the Algebra II regular course. The functions studied include linear, quadratic, rational, radical, exponential, and logarithmic functions. Students will examine connections between different representations of these functions, including algebraic, graphical, and contextual. In addition to the above topics, this class includes an introduction to the study of matrices and of sequences and series. *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. Students will investigate functions, their graphs, their inverses, 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.*

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 and volumes of revolution around an axis using the disk method and the shell method. We will cover the basic derivative rules and integration rules for the functions that were studied in Precalculus. *Prerequisite: Precalculus Advanced and recommendation of the department.*

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 applications, 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 and recommendation of the department.*

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 will 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, there is additional focus on exploring data, planning a statistical study, and anticipating patterns using probability. This course emphasizes understanding the "why" and "how" of statistics rather than just theory, making it applicable to daily life and future careers. *Prerequisite: Algebra II*

STATISTICS ADVANCED: DESCRIPTIVE STATISTICS

(fall semester)

This course, taken along with Inferential Statistics in spring semester, is equivalent to an introductory, non-calculus based college course in statistics. The accelerated curriculum is intended to introduce students to the major concepts and tools for collecting, displaying, and analyzing data. Students are exposed to three 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. In and out of class, students often work in groups to complete activities and projects. The course makes significant use of Google Sheets, applets, and calculators to perform most of the statistical calculations, leaving the analysis and interpretation of the results to the students. *Prerequisite: Precalculus and recommendation of the department.*

STATISTICS ADVANCED: INFERENTIAL STATISTICS

(spring semester)

This course is a continuation of the first semester with a focus on statistical analysis and inference, following the trajectory of a traditional introductory college course in statistics. Building on the foundation of probability concepts developed

in the first semester, students will begin the spring semester with an introduction to sampling distributions, focusing on the relationships between sampling statistics and population parameters. The remainder of the course applies these ideas to statistical inference, the formal methods for drawing mathematical conclusions from data. Students will explore the process for estimating proportions and means involving one and two samples of data, as well as chi-squared tests and inference for linear regression. The course also makes use of programming languages such as R and Python, along with applets and calculators, to give students experience with a variety of technological tools for statistical analysis. *Prerequisite: First semester of Statistics Advanced and recommendation of the department.*

STATISTICS ADVANCED: DATA SCIENCE
(spring semester)

This statistics course provides a rigorous and practical introduction to data science and statistical learning. Throughout the class, we will adopt a "hands-on" approach that tackles the problems of larger data sets and real-world data, making frequent use of the programming languages Python and R. The introductory unit to the course will consider foundational concepts in applied statistics, including the differences between inference and prediction, between regression and classification, and between supervised and unsupervised learning models. Students will explore the challenges of "wrangling" a real-world data set and performing exploratory data analysis to visualize data and gain insights about its structure. Building on basic linear regression concepts seen in the first semester of Statistics Advanced, we will investigate more complex regression models, while learning how to interpret fit metrics and select the variables for the best model. The remainder of the course will be devoted to a selection of approaches to statistical modeling, potentially including: principal components analysis, regularization and feature selection methods, clustering algorithms, tree-based methods and other classifiers, nonlinear regression, and neural networks. *Prerequisite: First semester of Statistics Advanced and recommendation of the department..*

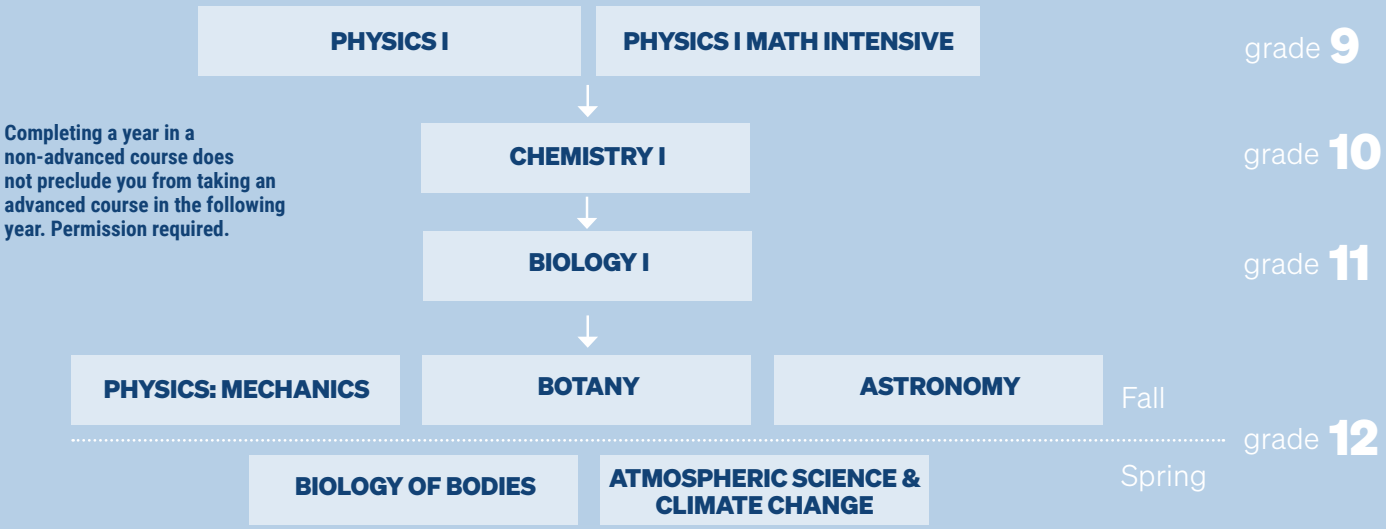
LINEAR ALGEBRA ADVANCED

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, an important component of the course, and also study the many real world applications of Linear Algebra. 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, an interest in mathematics and abstract thinking, and recommendation of the department.*

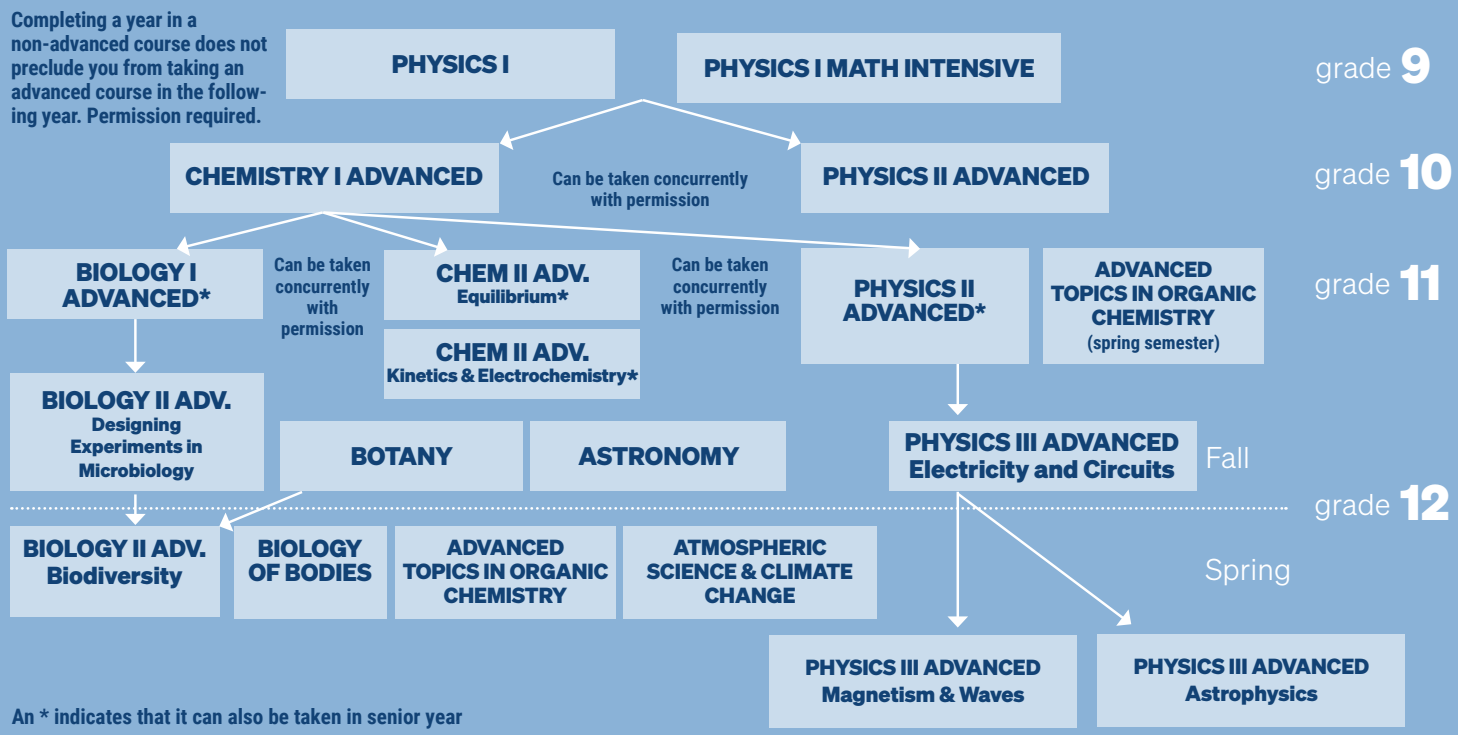
MAKING DECISIONS: AN INTRODUCTION TO ECONOMICS *(spring semester)*

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



SCIENCE ADVANCED



SCIENCE

In Friends' Central Upper School science, the sequence begins with Physics I, taken by all students in grade 9. Two versions of the course are offered: *Physics I* and *Physics I Math Intensive*. Each version of the course covers the same scientific concepts and skills. Students are enrolled in the courses based on their experience in mathematics in order to best match, grow, and support their skill set. Both *Physics I* and *Physics I Math Intensive* – in conjunction with our math curriculum – prepare students for advanced classes.

Developed by Friends' Central teachers, the courses explore central concepts in physics as the foundation of the course while exploring other scientific fields throughout the curriculum. Students learn the process of gathering, organizing, and interpreting scientific data in regular laboratory investigations.

Following Physics I, students enroll in regular or 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. The Science Department offers two separate semesters of biodiversity field and lab work in a scheduled, non-credit program called Natural Lands.

The FCS Natural History program is an opportunity for students to take on independent, ecology-centered research projects over the academic year. The students then share their work either in a scientific poster or by giving a short presentation at the Natural History Conference in the spring.

Interested students may also join clubs such as Astronomy Research Group, the International Young Physicist Tournament, Annenberg High School Science Symposium, STEM Competition Club, and Arbor and Horticulture Club, among others.

PHYSICS I

Serving as the first science course for Upper School students, 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, Mechanical Energy & Work, Thermodynamics, Electricity, Electromagnetic Radiation, Sound Waves, and Atomic & Molecular Architecture. These concepts serve as a core background to much of scientific theory and practice.

Considerable class time is devoted to the use of problem-solving skills to explore the quantitative application of these ideas. The course is designed to enhance and sharpen mathematical skills students are bringing with them from prior experience, as well as work alongside the mathematics course they are currently taking. Physics I is designed for students concurrently enrolled in Algebra I, Geometry, Geometry Advanced, or Algebra II. Additionally, 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. The course, or Physics I Math Intensive, is required for all grade 9 students.

PHYSICS I MATH INTENSIVE

The Physics I Math Intensive course explores the same scientific concepts as Physics I, and serves as a foundational course for the rest of their Upper School science experience. 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, Mechanical Energy & Work, Thermodynamics, Electricity, Electromagnetic Radiation, Sound Waves, and Atomic & Molecular Architecture. These concepts serve as a core background to much of scientific theory and practice.

Quantitative problem-solving is a significant part of the course. Physics I Math Intensive is designed for students to continue to refine and apply their mathematical skills from prior experience, as well as utilize the mathematical ideas they are concurrently learning. Physics I Math Intensive is designed for students who are concurrently enrolled in Algebra II Advanced, Precalculus Advanced, or Calculus Advanced. Additionally, 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. The course, or Physics I, is 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, evolutionary 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 10-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 using the periodic table to help identify patterns between the elements, 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 chemical reactions and biochemistry. Other topics covered include bonding, stoichiometry, thermodynamics, intermolecular forces, and molarity. 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 bonding, intermolecular forces, chemical reactions, stoichiometry, 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 scientific 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 scientific writing skills. 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 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*

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

Astrophysics *(spring semester)*

This 12th grade seminar style calculus-based course offers an introduction to astrophysics. Topics covered may include Celestial Mechanics, The Continuous Spectrum of Light, The Theory of Special Relativity, The Interaction of Light and Matter, Telescopes; The Nature of Stars: Binary Systems and Stellar Parameters, The Classification of Stellar Spectra, Stellar Atmospheres, The Interiors of Stars, The Sun, The Process of Star Formation, Post-Main-Sequence Stellar Evolution, Stellar Pulsation, Supernovae, The Degenerate Remnants of Stars, Black Holes, Close Binary Star Systems; Planetary Systems: Physical Processes in the Solar System, The Terrestrial Planets, The Jovian Worlds, Minor Bodies of the Solar System, The Formation of Planetary Systems; Galaxies and the Universe: The Milky Way Galaxy, The Nature of Galaxies, Galactic Evolution, The Structure of the Universe, Active Galaxies, Cosmology, The Early Universe. *Prerequisites: Physics III Advanced: Electricity and Circuits or Calculus 1 Advanced with permission from 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 fieldwork 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)***

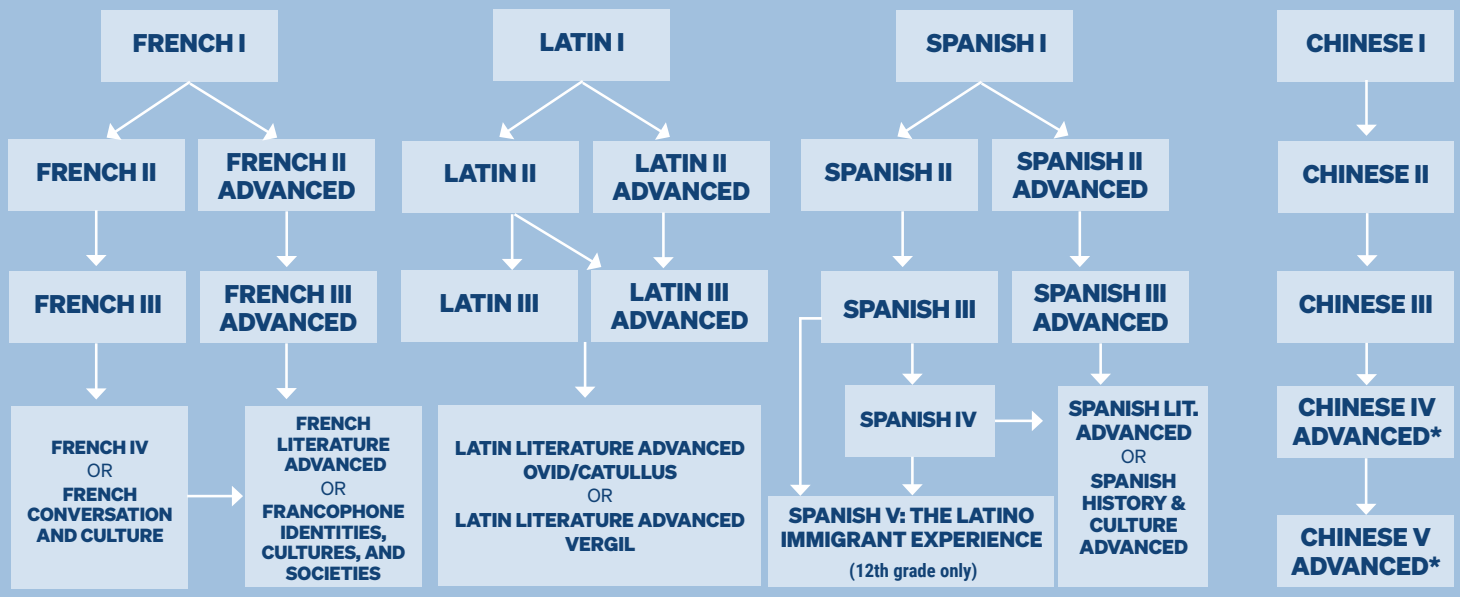
This course will guide students through a tour of the universe in four units. It starts with basic celestial orientation, where students learn how to find and then map significant markers in the sky. Students will study the changes in the sky over time, such as the seasonal movement of the Sun along 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 possibly field trips 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



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. 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

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.

CHINESE (MANDARIN) II

Chinese II builds upon the skills acquired in Chinese I, enhancing students' ability to understand and communicate in Chinese with a broader vocabulary and more complex sentence structures. This course continues to expand students' knowledge of the Chinese language and culture through listening, speaking, reading, and writing. It also further strengthens their proficiency in using Hanyu Pinyin (the Chinese pronunciation system), the Chinese writing system, and Chinese typing.

Instruction is primarily delivered in Chinese, fostering an immersive learning environment. Through the development of receptive, productive, and interactive skills, students will gain the ability to respond and engage effectively in real-life situations. The course aims to help students achieve communicative competence in a variety of everyday contexts. By the end of the course, students will be able to provide detailed information about themselves, their families and friends, daily life, and their immediate surroundings. In addition, students will explore the customs, history, and art forms of the Chinese people, deepening their understanding of Chinese culture.

CHINESE (MANDARIN) III

(new in the 2026-2027 school year)

In the Chinese III course, students continue to develop and refine proficiency in all four Mandarin Chinese language skills—listening, speaking, reading, and writing—with an emphasis on effective oral and written communication. Students use increasingly complex language structures across a variety of topics, progressing from concrete to more abstract concepts. At this level, students comprehend the main ideas and identify significant details in authentic spoken and written materials. The course strengthens Chinese reading and writing strategies and enables students to write in various formats, including journals, letters, invitations, and essays. Students also deepen their understanding of essential aspects of Chinese culture, including its origins, history, anecdotes, and etiquette across different social settings and occasions, while comparing and contrasting Chinese culture with their own.

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 encourages 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 profi-

ciency 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/FRENCH CONVERSATION AND CULTURE

In this class, instruction is conducted predominantly 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 stories, literature, art, 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 daily conversation to politics to more philosophical topics. Formal assessments include regular oral presentations as well as written quizzes and compositions. Students taking this course for the first year receive credit for French IV. Students taking it for the second year receive Conversation and Culture credit. The class is taught with alternating curricula, so students will not repeat content from year to year. Students earning Conversation and Culture credit will have higher expectations for oral production and will take more of a leadership role in the class. *This course is open to French students who have completed French III.*

FRANCOPHONE IDENTITIES, CULTURES AND SOCIETIES ADVANCED

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 language 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/expression 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 LITERATURE ADVANCED

This course is structured like an introductory college-level course. It focuses on plays, short stories, pieces of poetry and novels from the 17th through 21st centuries. The course explores themes such as class and gender equality, satire and philosophy (including works of the Existentialist movement).



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*.

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 23 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 to participate in either the two-week exchange program or the three-month exchange program. Each exchange runs every two years and will run in 2026-2027. 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, D.C., 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 *(not offered in 2026-2027)*

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

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 development 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

Latin III focuses on the ancient city of Pompeii, the eruption of Vesuvius, and daily life in the ancient world. Students will read selections of non-fiction prose by Pliny – contemporary, primary sources writing about the city, as well as epigrammatic poetry by Martial focusing on daily life in the Roman world. Students will complete an in depth review of Latin grammar and learn the forms and uses of the subjunctive mood. However, the focus will be on reading and translating original documents chronicling life in the ancient world.

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.

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 2027-2028)

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.

SPANISH

SPANISH I

In the first year, students develop their communication skills (listening, speaking, reading, writing, and negotiating meaning with others) while having the opportunity to build their knowledge of basic Spanish and explore different cultural aspects of the Hispanic world. This course strives to offer students a wide array of materials and learning opportunities, all of them designed to promote their advancement into the next levels of proficiency. Among others, examples of the materials and opportunities offered in Spanish I are

the analysis and enjoyment of music videos, movie shorts, interviews in the target language, readings, and discussions, all of them based on the preferences expressed by students at the beginning of the year. An important part of the work developed in this class will be project or task-based, which will encourage students to put their newly acquired skills and knowledge to the test in realistic communicative situations on an ongoing basis. This course provides a supportive atmosphere to help build community as students develop the confidence and know-how to communicate in Spanish while connecting to and learning about the Spanish-speaking world.

SPANISH II

This course is a continuation of the foundational Spanish I class. Students are encouraged to continue building on the knowledge and communication skills acquired the previous year and thus continue fine-tuning their ability to use Spanish with increasing spontaneity, fluency, and linguistic precision. Like Spanish I, great importance is given to project and task-based learning projects, through which students will have the opportunity to continue putting their knowledge and skills to the test in realistic communicative situations on an ongoing basis. As in the previous year, the materials and opportunities offered by this class will include the analysis and enjoyment of movies, shorts, music videos, games, local visits, and readings, all of which are designed to encourage students to advance to a higher level of proficiency and to provide sound explorations of the Hispanic experiences. Observing and experiencing the cultural and artistic expressions of the Hispanic world will also be of capital importance, of course. Students will have the chance to discuss different aspects of Hispanic exhibitions or cultural events. Building a sense of community is an important ingredient in this class as well. Students will find themselves reinforcing their proficiencies in Spanish while discovering new cultural aspects, learning to think in a different manner, and all the while enjoying themselves in the Spanish class.

SPANISH II ADVANCED

This course is designed to challenge students who have demonstrated a high level of proficiency during Spanish I 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 include 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 expressing detailed narratives in the past, giving advice and instructions, and exploring expressions of doubt and uncertainty in the subjunctive. The focus of this course is on developing communicative skills, with a strong focus on spoken production in the target language. As students work with new and advanced grammatical concepts, they work to strengthen

writing skills through in-class compositions and quizzes. Throughout the year, students read and/or watch a variety of short writings, films, and music videos to explore Hispanic/Latine history and culture, forming the basis for engaging practice 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 reading level-appropriate novelas, listening to Latin music, and watching films and shows in Spanish. For example, students explore the history of Argentina and the people who "disappeared" during its dictatorship through the novel *La Guerra Sucia*. 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. ***This course is open to students who have completed Spanish III.***

SPANISH V: THE LATINO IMMIGRANT EXPERIENCE

The goal of this course is to familiarize students with some of 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 and regions of origin. The general outline of the class is to study one country every two months. Almost 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, and Venezuela. 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 coexisted 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 indiginous 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 2027-2028)*

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, puzzle-like stories. In them 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 as cruel, cunning, and complex as 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

(offered in 2027-2028)

Every two years since 1997, FCS has participated in a 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 FCS Spanish students for three weeks while they 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, spending four days in Madrid before travelling to Seville to live with the families of the students hosted in the fall while they undertake study and cultural immersion. 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.

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*

TOPICS IN PSYCHOLOGY *(spring semester)*

This seminar-style course offers grade 12 students an engaging exploration of psychology, exposing them to a diverse range of subfields, real-world applications, and career opportunities. Team-taught by faculty members in the Counseling Department, the course provides a unique perspective on topics such as mental health, human behavior, neuropsychology, and social psychology. Through discussions, case studies, role-playing, and interactive projects, students will gain insights into the foundations of psychology and how it applies to their lives and future pursuits. The final month before Senior Project focuses on synthesizing knowledge through collaborative projects and co-taught sessions that deepen understanding of interdisciplinary connections. Intellectual curiosity and active participation are essential.

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)***

Quaker School Life is a required course for all ninth grade students and is centered on exploring what it means to be part of a Friends school community. The course introduces basics of Quaker theology (including the principles behind Meeting for Worship), Quaker history, and the testimonies of truth, peace, simplicity, and equality. Guiding questions include how we connect authentically with ourselves and with one another, and how we engage to make the School a supportive and inclusive place. Exploring the values of Quakerism is an important foundation for our work in diversity, equity, justice, and belonging within the School community and in the wider world.

HUMAN SEXUALITY ***(required) (fall or spring semester)***

Part of Quaker School Life, 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.

GRADE 11 AND 12

College Counseling Seminar
(required) (one semester)

This course is designed to introduce students to the college search and application process. During the junior seminar class, held each spring, students will explore college fit, building a narrative within applications, and studying how admissions offices evaluate applications. The junior college seminar class concludes with the beginning work on the Common Application and the personal statement.

The senior seminar, held each fall, features hands-on support from college counselors to help students finalize their college applications

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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 (see below). 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 introduce them to a holistic approach to wellness. Wellness Education Credits require students to participate in some activity, either on or off campus, for a minimum of two hours per week in any season when they are not participating in an FCS athletic team or approved co-curricular activity. In some instances, students can do their wellness program on the weekend. Students can choose one or several of the following on-campus options* OR choose an off-campus option:

- 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 include fitness classes, lessons, clinics, or regular gym attendance with supervision. 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.*

LIFEGUARDING

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. *Contact the Athletics and Wellness Department for more information. Please note: this course will be offered with enough student interest and will occur outside of academic time.*

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