UPPER SCHOOL

2025/26

CURRICULUM GUIDE

GRADES 9–12

SIDWELL FRIENDS SCHOOL
ELUCEAT OMNIBUS LUX
FOUNDED 1883
WASHINGTON, DC

Contents

Requirements For Graduation

The curriculum at Sidwell Friends School provides all students with the education essential to their intellectual and personal development. While all students fulfill the same requirements, the School incorporates individual differences and the pursuit of specific interests into the program.

In order to earn a Sidwell Friends School diploma, students must successfully complete a minimum of 20 credits as well as physical education, work program, community service, and senior projects.

Students may take a maximum of six courses, provided that the sixth course is in the arts or computer science. Each student must be enrolled in at least four credit courses each semester to be considered a full-time student. Students enrolled in two or more courses from any one discipline need the approval of the department and the assistant principal for academic affairs. A Sidwell Friends School transcript represents work completed at or under the auspices of the School; credit is not awarded for courses in programs not sanctioned by the School. In 9th and 10th grades, all students must enroll in the following five course subjects: English, Modern and Classical Languages, Mathematics, Science, and History.

The School requires each student to complete minimum proficiency levels in the following disciplines: Arts, English, Mathematics, Modern and Classical Languages, Science, and History. The requirements within the disciplines represent a minimum level of work; the School strongly encourages students to pursue one or more areas in greater depth beyond the requirements. The minimum requirements for each discipline are:

Arts: two years of arts. Students have until the end of 10th grade to complete the first year of the requirement; students must complete the second year of arts by the end of 12th grade.

English: four years of English

History: three years of history. Beginning with the class of 2029, all students are required to take Regional Studies in 9th and 10th grade and History of the United States or American Studies in 11th grade. The School only makes exceptions for students who are attending School Year Abroad and approved semester programs; those students may take History of the United States in 12th grade.

Mathematics: three years of mathematics. All students must take math during 9th, 10th, and 11th grade. The classes that satisfy this requirement may not be taken pass/fail.

Modern And Classical Languages: two years of a modern or classical language. Students are required to take two sequential years of the same language in the Upper School.

Science: three years of science (two years of science for the Class of 2026). Beginning with the class of 2027, all students are required to take 9th grade Physics, 10th grade Chemistry, and 11th grade Biology.

Physical Education: completion of the PE requirement. The program operates on a trimester system based on the fall, winter, and spring athletic seasons. Students need 10 credits of PE and/or athletics to graduate. A PE class confers 1 credit, and participation on an athletic team confers 1.25 credits. Grading will be based on attendance, attitude, and effort. Students must participate in a minimum of 80 percent of all classes to receive credit for the season. Any 12th- grade students with more than two F's to make up during their 12th grade year will not receive a diploma until the completion of the physical education requirements the summer following graduation. A fuller explanation of physical education and athletic requirements may be obtained from the athletic department.

9th Grade Studies: Ethical Leadership
This course, required of all 9th graders, uses Quaker methods and the study of Quaker themes throughout the curriculum, and it emphasizes what it means to be an ethical leader in the 21st century. The course covers topics including: social justice, community engagement, and responsible decision making. Students receive a pass/fail grade for this class.

Community Service: This requirement is outlined in the next section.

Community Engagement

Sidwell Friends graduates students who are actively engaged in the world and who think critically about what is going on around them; who ask about the root causes of injustices; who have the tools to act on their ideas; and who are empathetic, collaborative, and reflective. These ideals can be taught by engaging responsibly with communities. The Upper School service program and graduation requirement puts Sidwell Friends' ideals into action by getting students involved in local and global communities around important social justice issues.

9th Grade Studies: Ethical Leadership

The 9th grade year serves as an introduction to community partner organizations and social issues relevant to the District, including education equity, food security, poverty, and elder care.

Graduation Requirement (10th and 11th)

As a graduation requirement, students must make a long-term commitment of at least 60 hours to one organization, though some students work beyond this. Between the end of 9th grade and the start of 12th grade, students develop individual community projects that may tie into the academic topics covered in sophomore and junior classes. Students can consult a list of organizations or issue areas to explore. Projects must involve direct and active engagement with people in the community so that Sidwell Friends students get to know and build relationships with those in the wider community who they otherwise might not meet.

To start thinking about the individual community commitment, students first identify a social issue area they would like to become involved with. Issue areas can include, but are not limited to: food security, racial justice, gender equity, literacy, education equity, income inequality, environmental justice/climate change, criminal justice reform, immigration, senior citizens, and LGBTQ rights.

Acceptable projects may fit into one of the following categories:

- Community Service: Students volunteer with a nonprofit community-based organization to provide service for clients.
- Service Learning: Students engage in community service activities with intentional academic and learning goals.
- Activism: Students partner with community-based organizations to address the root cause of social injustice and work to dismantle systems of privilege and power.

Projects that do not fit include:

- Charity where students give money, food, or other kinds of material help to people in need.
- Animal welfare: Projects must include work with human beings.
- Sunday School teaching at one's own church, temple, or place of worship.
- Camp counselor for a conventional camp: Camp must include underserved children.
- Clerical or office work.
- Museum work.
- Work with orphanages or organizations that maintain the institutionalization of vulnerable children.
- Participating in a service trip sponsored by a for-profit travel organization.
- Medical or scientific research without immediate, direct application to individual or community needs.
- Working for a political candidate or officeholder.
- Working for groups whose programs are inconsistent with Friends' testimonies.

Students must complete this community commitment by the first day of senior year.

Adding/Dropping Courses and Pass/Fail

- All adds, drops, or changes in courses must be made through the assistant principal for academic affairs.
- Students may not add a new course to their program after the published deadline to add a new course. Course adds are subject to availability within the student's schedule and space in the course.
- Students may not choose to drop a year-long course after the published deadline to drop a course. In some rare and extreme circumstances, such as a documented health emergency, the assistant principal for academic affairs and Upper School principal may allow a course to be dropped after this period. In such cases, a WP (withdrawn passing) or WF (withdrawn failing), as appropriate, will be entered on the student's transcript, and no credit for the course will be granted.
- If the course placement, as determined by the department, is subsequently deemed by the department and the assistant principal for academic affairs to need adjustment, a student's course assignment can be changed by the assistant principal for academic affairs. Any such changes made through the first quarter will not appear on the transcript. Such changes made thereafter will appear on the transcript as a WP or WF as appropriate.
- The School will report all changes in a course of study for 12th grade students to the colleges that student has applied to or to the colleges that student has been accepted to.
- The School reserves the right to cancel a course when the number of students registered for that course is fewer than 10.

Pass/Fail Option

In order to encourage students to take courses in areas of study that are new to them, or in which they may feel uncertain, there is a pass/fail option.

- The student must declare their intention of using the pass/fail option by the deadline for dropping courses in each semester.
- A student must be enrolled in a minimum of four classes (excluding Arts and Computer Science courses) to exercise this option.
- Students may only take one normally graded course on a pass/fail basis per semester.
- Students may not take courses required for graduation on a pass/fail basis, with the exception of those courses designated as pass/fail in the Curriculum Guide.
- Once a student declares the pass/fail option for a course, the student may not subsequently rescind that option in that semester.

Examinations

In most instances, students will take examinations in their major subjects at the end of each semester. In the spring, 12th grade students will have a separate examination time. Written exams are scheduled for one or two hours. The School will post the schedule for examinations (during which time there are no classes) in advance. If a student has a conflict in scheduling exams, they should schedule a makeup exam with the assistant principal for academic affairs. Except under the most unusual circumstances, students must meet the published examination schedule. Absence for vacation travel is not an adequate reason to adjust the exam schedule. An exception can be made only with the permission of the principal or assistant principal for academic affairs. The makeup day is often used for rescheduling exams due to inclement weather. Students must be available on this regular School day to make-up exams canceled due to inclement weather.

Grades And Report Cards

The School posts report cards on QuakerZone via the Parent and Student Portals approximately two weeks after the marking period ends. Reports at the end of the first and third quarters contain a grade range with a comment and indicate whether or not a student's performance and effort are satisfactory. Seniors only receive letter grades (A-F), not ranges, at the end of the first quarter. Report cards for first and second semester will include letter grades (A–F) earned in all major subjects, reflecting the teacher's evaluation of the student's written and oral work throughout the semester and their work on the semester examination, if one is given. Teachers provide written comments at the end of the first semester, but comments are optional at the end of the academic year in June, unless the student earns a grade of C- or below in the course and/or a C- or below on the final exam.

Semester grades are recorded separately on the transcript and are not averaged to create a final grade for the year.

Interims

The School posts interim reports on QuakerZone when a teacher believes that communication beyond the quarterly report card is appropriate. An email notification is sent to the student and parents when an interim is posted.

Course Offerings By Department

Arts

The Upper School Arts program, in general, emphasizes hands-on experience, both in its curricular and co-curricular offerings. Students with a variety of arts experiences in Middle School who have discovered a particular interest, such as in music, visual arts, or theater, may choose to concentrate on that interest in Upper School. Unless otherwise noted, courses are open to all students.

Theatre

In addition to the credited course offerings listed below, the Upper School Theatre Program includes at least three co-curricular productions during the school year: a play, a musical, and a set of one-act plays or other alternative format. Although no course credit is given for productions, a student who takes part in any of these productions is likely to do as much meaningful work and study as they do in the classroom. Co-curricular productions are cast from auditions, which are open to the student body.

Intro to Performance—.5 credit; semester course
Open to: 9, 10, 11, 12
Prerequisites: none
May not be repeated for credit

Formerly known as "Improv," this course is your gateway to mastering all of life's stages—whether it's performing on stage, delivering a presentation, or acing a college interview.

In this class, you'll develop the skills to confidently handle any performance situation. Through fun and engaging units on improvisation, skit creation, character study, ensemble-building, and physical and vocal expression, you'll explore the actor's craft as part of a supportive theatrical community. You'll also gain fundamental performance and public speaking skills, as well as verbal and nonverbal communication techniques, to boost your creativity and confidence both on and off the stage.

Classwork includes brief reading and writing assignments, memorization, and rehearsal time tailored to your developing skills and interests. Whether you're a beginner or just curious about performing, this semester-long course will help you discover your voice, build your

confidence, and find your place in the spotlight. Students receive a letter grade at the end of the semester.

Acting I —.5 credit; semester course

Open to: 9, 10, 11, 12
Prerequisites: none
May not be repeated for credit

Discover the essential tools every actor needs to shine on stage in Acting I. Through interactive exercises, theatre games, and scene work, students will develop fundamental skills like body awareness, vocal projection, emotional expression, and character analysis. In this semester-long introductory course, you'll learn how to ace auditions, master cold readings, and explore exciting techniques such as stage combat and both comedic and dramatic performance. With a focus on using your voice, body, and imagination, you'll bring characters to life in a safe and creative environment.

Perfect for beginners, Acting I builds confidence, encourages self-expression, and fosters a love for the collaborative art of theatre. Students receive a letter grade at the end of the semester.

Acting II —.5 credit; semester course

Open to: 9, 10, 11, 12
Prerequisites: Acting I or by permission of instructor
May be repeated for credit once

Discover the essential tools every actor needs to shine on stage in Acting II. Through interactive exercises, theatre games, and scene work, students will develop fundamental skills like body awareness, vocal projection, emotional expression, and character analysis. In this course, you'll learn how to ace auditions, master cold readings, and explore exciting techniques such as stage combat and both comedic and dramatic performance. With a focus on using your voice, body, and imagination, you'll bring characters to life in a safe and creative environment.

Perfect for those looking to solidify their acting foundation, Acting II builds confidence, encourages self-expression, and fosters a love for the collaborative art of theatre. Students receive a letter grade at the end of the semester.

The Performance Lab—1 credit; year course

Open to: 10, 11, 12

Prerequisites: Intro to Performance, Acting I, or Acting II; participation as an actor in an Upper School Theatre Production; or by permission of instructor

May be repeated for credit

This year-long advanced theatre class is the perfect space for high school students ready to explore acting, storytelling, and public speaking in a supportive and creative environment. In The Performance Lab you'll focus on improvisation, storytelling, and ensemble creation as you build your confidence, your unique voice and performance skills.

Highlights of The Performance Lab:

- Create Your Own Stories: Write original scripts and direct scenes with your peers.
- Devised & Improv Theatre: Explore character creation and performance through improvisation and collaborative storytelling.
- Guest Artist Workshops: Learn from professional actors, directors, and theatre companies from the DC area.
- Exciting Field Trips: Experience the magic of live theatre with trips to see professional plays, musicals, and improv shows.

This is your chance to experiment, grow, and shine in a creative space that celebrates every step of your journey as a theatre artist. Students receive a letter grade at the end of each semester.

Introduction To Technical Theater—.5 credit; semester course

Open to: 9, 10, 11, 12

Prerequisites: none

Learn what happens behind the scenes to make a theater season possible. Students will see their work come to life through hands-on, practical projects that are a part of the current theater season and other events in Caplin and Rosenberg Theaters. This class may also work on projects for imagined productions to gain additional knowledge and skills. Topics include stage management, lighting, props, costumes, sound, rigging, set construction, projections, theater organization, and the production process. The course includes basic carpentry and the use of hand and power tools for set construction. Class time is divided between formal study and practical work on stage productions. The teacher may assign projects to students individually or in groups as time permits. Students are encouraged to audition for positions on the tech crew for at least one production. During production week, a significant amount of time outside of class is required for crew members. Students also learn stewardship of

the theater spaces, including the stage, scene shop, and booth. This course is geared to varying levels of prior experience. Students receive a letter grade at the end of each semester.

Advanced Technical Theater—.5 credit; semester course

Open to: 9, 10, 11, 12
Prerequisite: Intro Tech Theater or permission of the instructor
May be repeated for credit.

Advanced Technical Theater is a continuation of the skills and topics learned in the Introduction course. Students are encouraged to repeat the course as the projects change each semester depending on the productions. Students will build upon their knowledge and skills with additional opportunities to take on advanced projects and leadership roles. Individual or group projects may be assigned. Each student is required to take on a crew position for one production each semester, work on theatrical events in the theater spaces, or work on an pre-approved independent project. All of these options involve time outside of class. Students receive a letter grade at the end of each semester.

Vocal Music

Chorus—1 credit; year course

Open to: 9, 10, 11, 12
Prerequisites: none
May be repeated for credit

The Sidwell Friends School Full Chorus is a non-auditioned ensemble where all voices are welcomed and celebrated. Students in Full Chorus rehearse four times a week and perform in four required concerts, including the Winter Concert, the Spring Concert, Founder's Day, and the Independent Schools Choral Festival held at the National Cathedral. As members of Full Chorus, students develop confidence in their singing voice while learning fundamental elements of music theory (reading notation, rhythms, key and time signatures, etc.). Class content includes foundations of music history, music appreciation, and the impacts of choral music in society. Singers explore and experience the teamwork aspects of ensemble singing, with an emphasis on blend, balance, and intonation, and they learn to use their vocal instrument in a healthy way that will encourage and support lifelong singing. No prior musical experience is required. Students receive a pass/fail grade at the end of each semester.

Chamber Chorus—1 credit; year course

Open to: 10, 11, 12
Prerequisites: placement by audition
May be repeated for credit

The Sidwell Friends School Chamber Chorus is a select small vocal ensemble chosen on the basis of a rigorous audition. Auditions are held annually in May and placements are determined at that time for the coming fall semester. Students in Chamber Chorus also sing as part of the Full Chorus, and Chamber Chorus meets twice a week in addition to the four meetings of the Full Chorus. In addition to the four concerts listed for Full Chorus, the singers in Chamber Chorus can expect to perform additional concerts within the Sidwell Friends School community, throughout the Washington area, and on periodic off-campus trips. Singers in Chamber Chorus continue to develop their voices and ensemble skills, and are expected to read music at an accelerated level/pace. Students receive a letter grade at the end of each semester.

Instrumental Music

Ensemble participation and the integration of music into School life are the primary features of the Sidwell Friends School Instrumental Music Program. Playing with other people demands collaboration and is the single best way to develop one's listening skills. Performing, whether for assemblies, special programs, or in the classes of other subjects is an immediate and real way for students to learn about the various social functions of music while contributing to School life. The concentration and sustained effort students learn through practicing and performing is useful in virtually all other disciplines. Students are expected to acquire an understanding of and to be able to explain the functions of their respective instruments in a variety of musical idioms. Students are also expected to prepare and participate at a level that enables them to contribute their best to any ensemble in which they participate.

The Upper School instrumental music program is an inclusive, performance-based ensemble program. It allows students to share their musical abilities with each other and the Sidwell Friends community while individual study continues at their own pace. All music is arranged to accommodate the different needs of each student. The goal is to make mature-sounding music together, while being accountable to each other in the process.

Chamber Orchestra—1 credit; year course

Open to: 9, 10, 11, 12

Prerequisites: basic ability on instrument with preliminary assessment by instructor

May be repeated for credit

The Sidwell Friends Chamber Orchestra studies, rehearses, and ultimately performs music in a variety of styles. Repertoire ranges from the baroque through the contemporary. The class often arranges repertoire to accommodate the varying ability levels of each student. Some students might rehearse in smaller groups, such as duos, trios, and quartets, as needed, depending on the instrumental makeup of the group as a whole. Required performances include the annual Winter Concert and Spring Concert. Teachers notify students of any additional performances at the beginning of each semester. Students receive a pass/fail grade at the end of each semester.

Jazz Ensemble I—1 credit; year course

Open to: 9, 10, 11, 12

Prerequisites: basic ability on instrument with preliminary assessment by instructor

May be repeated for credit

The Jazz Ensemble I course is an introduction to and the preparation of student musicians in the performance and language of jazz/contemporary music. Class occurs in a performance-based, workshop format, with jazz combo instrumentation. Students study, rehearse, and ultimately perform a variety of music from the wide spectrum of jazz. Topics covered include: instrument roles in rock, funk, and jazz/swing styles; 12-bar blues; beginning improvisation/jazz theory; major key chord progressions/harmony; lead sheet interpretation; etc. Required performances include the annual Winter Concert and Spring Concert. The teacher notifies students of any additional performances at the beginning of each semester. Students receive a pass/fail grade at the end of each semester.

Jazz Ensemble II—1 credit; year course

Open to: 10, 11, 12

Prerequisites: Jazz Ensemble I and permission of instructor

May be repeated for credit

The Jazz Ensemble II course is a continuation of the Jazz Ensemble I curriculum (see above). This course continues preparing student musicians/groups in the authentic performance

and diverse language of jazz/contemporary music. Ideally, most junior- and senior-year students will become self-sufficient enough to generate music opportunities for themselves at the collegiate level. New content includes: standard jazz repertoire, Afro-Cuban and fusion styles, continuing improvisation/jazz theory, and minor key and advanced chord progressions/harmony. Required performances include the annual Winter Concert, Spring Concert, Homecoming, ArtRageous, HS Invitational Jazz Fest @ GDS, and Founder's Day. Some select students participate in the Advanced Jazz Combo. The combo performs at additional School functions throughout the year (Admissions Open House, Sidwell Friends School Auction, etc.). The teacher notifies students of all performances at the beginning of each semester. Students receive a pass/fail at the end of each semester.

Visual Arts

Ceramics I—.5 credit; semester course

Open to: 9, 10, 11, 12
Prerequisites: none

This course introduces students to the fundamental techniques, methods, and materials used to create ceramic art. Starting with idea generation and concept development for projects, students in this class will learn the basics of ceramic processes including wheel-throwing, pinch, coil-building, slab construction, surface design and glaze application. Students will learn how to design and form both utilitarian wares and sculptural objects with clay. The class emphasizes critical thinking and problem-solving to help students build their artistic voice with three-dimensional artworks. This course is led through a combination of demonstrations, discussion of relevant contemporary and historical ceramics, and independent studio time.

Students receive a letter grade at the end of each semester.

Ceramics II—.5 credit; semester course

Open to: 9, 10, 11, 12
Prerequisites: Ceramics I

Ceramics II is a continuation of the study of and work done in Ceramics I with the introduction of forms and methods that are more technically challenging. Students have the opportunity to begin to work in a more self-directed manner and build cumulatively on the skills learned in ceramics I. Students receive a letter grade at the end of each semester.

Ceramics III—.5 credit; semester course

Open to: 10, 11, 12
Prerequisites: Ceramics II

Ceramics III is a continuation of both the technical and conceptual investigation that the student began in Ceramics I and II. Ceramics III students will begin to guide their own creative process while being introduced to forms and methods of increasing technical difficulty. Through independent practice and studio time, students will build on the skills learned in Ceramics I and II with the goal of working toward creating a cohesive body of work. The course focuses on providing the structure of specific wheel and hand building projects as a springboard for students to experiment with new processes and develop their own personal style with three-dimensional artworks. Students receive a letter grade at the end of each semester.

Ceramics IV—.5 credit; semester course

Open to: 10, 11, 12
Prerequisites: Ceramics III
May be repeated for credit

Ceramics IV is a continuation of the study of and work done in Ceramics III. Students have the opportunity to direct their own studio practice with demonstration and consultation from the instructor. Students are presented with instructor-led projects and are also encouraged to invent their own projects based on individual interests and prior experience with the goal of creating a cohesive portfolio of ceramic art. Students receive a letter grade at the end of each semester.

Advanced Ceramics—1 credit; year course

Open to: 10, 11, 12
Prerequisites: Two (2) semesters of Ceramics, or permission of instructor in consultation with Arts Department head.
May be repeated for credit

This course is designed for the self-motivated and focused artist seeking to improve their throwing and handbuilding ceramics skills through intensive practice and creative investigation. Starting by developing a core concept, students will be challenged to create a cohesive body of work that addresses a chosen theme. In addition to learning how to make increasingly complex utilitarian wares and sculptures, students will research and discuss glazing and firing techniques, the science of ceramic materials, ceramics history, issues in contemporary ceramics and the larger ceramics community in DC and beyond. This course

will combine a mixture of guided instruction and independent projects. Students receive a letter grade at the end of each semester.

Drawing—.5 credit; semester course

Open to: 9, 10, 11, 12
Prerequisites: none

This course is an introduction to the techniques of drawing and focuses on observing, interpreting, and rendering visual relationships. The semester begins with fundamental projects that deal with contour, negative space, and composition and advances to more sophisticated projects such as still life, landscape, and portrait drawing. Students explore various media, including graphite, charcoal, pastel, colored pencils, ink, and some digital processes. Sketchbook homework, critiques, and slide lectures supplement classroom assignments. Students receive a letter grade at the end of each semester.

Advanced Drawing—.5 credit; semester course

Open to: 9, 10, 11, 12
Prerequisites: Drawing
May be repeated for credit

This course is an advanced-drawing concepts course that focuses on expanding an understanding of mark-making. Through the introduction of new materials and techniques, students expand their knowledge of drawing methods and artistic practices. Projects include self-portraits, color-pencil illustrations, digital drawing, and mixed-media compositions. This course encourages personal voice through idea generation, material investigation, technical refinement, and research. Students are encouraged to push the boundaries as they investigate materials, subject matter, process, and interpretation related to image making. Students keep a sketchbook and receive occasional homework assignments for the sketchbook. Students receive a letter grade at the end of each semester.

Painting—.5 credit; semester course

Open to: 9, 10, 11, 12
Prerequisites: none
May be repeated for credit

This course provides a comprehensive exploration of painting techniques and concepts that includes some digital processes. Students learn basic color theory in addition to painting styles from different artistic movements. Through assignments and class discussion, students continue to refine their observational skills and compositional understanding to

create cohesive and creative paintings. Projects include the use of collage, ink, watercolor, and acrylic paints. Sketchbook homework, critiques, and slide lectures supplement classroom assignments. Students receive a letter grade at the end of each semester.

Advanced Studio Art—1 credit; year course

Open to: 11, 12
Prerequisites: one year of any visual art class, or permission of instructor in consultation with Arts Department head
May be repeated for credit

This course is for highly motivated students interested in the advanced study of visual art. In addition to developing work in a wide range of media and approaches, students design and complete a substantial independent project. Each student is given a chance to develop a body of work along their own thesis/query. Additionally, students have the opportunity to prepare digital slide portfolios for college applications. Students receive a letter grade at the end of each semester.

Intro Photography + Imaging—.5 credit; semester course

Open to: 9, 10, 11, 12
Prerequisites: none
May not be repeated for credit

This course introduces students to the core elements of photography—light, form, contrast, and tone—using traditional and contemporary media. Students learn how to use manual light meters using film and digital cameras and how to express themselves using the language of the medium - aperture, shutter speed, and ISO. Students learn how to process film, print 35mm negatives, upload and process digital images and make their own fine art prints using analog and digital techniques. Introductory level students examine the work of contemporary and historical photographers and learn the fundamentals of composition and how to create images with intention. Students receive a letter grade at the end of each semester.

Note: Film and analog processes are used but students work primarily with digital media.

Intermediate Photography + Imaging—.5 credit; semester course

Open to: 9, 10, 11, 12
Prerequisites: Intro Photography + Imaging
May not be repeated for credit

This course is intermediate level. Students have completed one semester of Intro Photography + Imaging and have a secure foundation in traditional wet processes, digital techniques, and fine art printing. This course emphasizes longer-term, more in-depth projects and an increased facility for composition and the language of photography. Students are introduced to more sophisticated shooting and editing techniques (in camera as well as post production), diverse printing techniques, and a range of visual literacy exercises including the frequent examination of historical and contemporary artists, monthly Looking Days and peer review sessions. Students receive a letter grade at the end of each semester.

Note: Film and analog processes are used but students work primarily with digital media.

Advanced Photography + Imaging—1 credit; year course

Open to: 10, 11, 12 (10th graders with permission from the instructor)
Prerequisites: 1 year of Photography (Intro + Intermediate)
May be repeated for credit

Advanced students have completed Introductory and Intermediate Photography and have a strong foundation of the technical and aesthetic language of photographic processes. Advanced Photography students work on a portfolio of final works based on a sustained investigation of a chosen theme or essential question. This college-level curriculum asks students to work conceptually and in a variety of processes and techniques to deepen their art practice and produce work that emphasizes research, experimentation, and iteration. Students are required to complete weekly mini-assignments, maintain a detailed sketchbook of work in progress, and engage in critiques, class discussions, and occasional collaborative work. Looking Days, class discussions, and field trips are an integral part of the Advanced coursework. Students working at this level are strongly encouraged to submit their work to college applications, internships, art competitions, and other curricular and extracurricular opportunities.

Students working at this level will participate in more frequent class discussions, readings, and Looking Days, and attend one field trip. Students are encouraged to exhibit their work and/or curate exhibitions and installations (on and off campus), and apply to leading arts competitions or summer opportunities. Seniors are strongly encouraged to submit Arts

supplements for college applications. Students receive a letter grade at the end of each semester.

Note: Film and analog processes are used but students work primarily with digital media.

Computer Science and Engineering

The CS and Engineering Program offers three types of courses: (1) sequence, (2) projects, and (3) topics. The sequence covers general computer science and programming from introductory through advanced levels. Project courses center around long-term projects where the focus is on independent learning and seeing a semester-long project through to completion. Topic courses are more traditional in that there is more instruction, along with a series of shorter exercises and projects throughout the semester. All courses are semester long.

CS & Engineering Sequence

Sequence courses cover general computer science and programming from introductory through advanced levels.

CS1: Foundations—.5 credit; first-semester course

Open to: 9, 10, 11, 12
Prerequisites: none

CS1: Foundations focuses on fundamental concepts in computer science and programming, with an emphasis on problem solving. By working through projects in robotics and visualization, students develop computational thinking, logical reasoning, and communication skills. Specific topics include control flow, functions, variables, lists/arrays, image processing, history of computing, and computer ethics. Students are encouraged to express their creativity through graphical assignments. They also begin to investigate the ideas of artificial intelligence and computer vision. The course emphasizes good program design, testing, and algorithmic thinking. Programs are implemented in Python and Java.

CS2: Object-Oriented Design—.5 credit; second-semester course

Open to: 9, 10, 11, 12
Prerequisites: CS1

CS2: Object-Oriented Design is a continuation of CS1. The course introduces the object-oriented programming style and explores challenging problems. The instructor reinforces and expands on topics and concepts introduced in CS1. Students tackle larger software design problems, using data abstraction, inheritance, encapsulation, and polymorphism. The course also introduces interfaces, I/O, and event-driven programming. Students use these techniques to develop games, simulations, and data-visualization programs. Programs are implemented in Java.

CS3: Algorithms & Data Structures—.5 credit; first-semester course

Open to: 10, 11, 12
Prerequisites: CS2

CS3 covers both classic data structures and the analysis of algorithms. Data structures include arrays, queues, stacks, binary trees, graphs, dictionaries, and hash tables. Students analyze standard algorithms for sorting, searching, recursion, and backtracking. They also conduct complexity analysis using big-O notation. The course introduces standard design techniques (e.g., the greedy approach, divide and conquer, dynamic programming, linear programming) through a variety of problems in algebra, graph theory, and optimization. The instructor emphasizes object-oriented design throughout.

CS & Engineering Projects

CS & E Projects: Artificial Intelligence and Game Development—.5 credit; second-semester course

Open to: 10, 11, 12
Prerequisites: CS3

In Artificial Intelligence and Game Development, students create games of their own design; using XNA and C#, students follow the life cycle of 2D and 3D game development from design through deployment on computers and the Xbox system. Throughout the semester, students investigate various artificial intelligence techniques within the context of game development. Methods such as backtracking, neural networks, genetic algorithms, and game theory are used to create and evaluate autonomous computer players. Throughout

the course, students learn the importance of version control, testing, documentation, good user-interface design, and the implementation of physics in 3D virtual environments.

CS & E Projects: Computer Graphics and User Interfaces—.5 credit; first-semester course

Open to: 10, 11, 12
Prerequisites: none

Computer Graphics and User Interfaces explores 2D graphic design, 3D modeling, computer-aided design (CAD), basic animation, and graphical user-interface design. Using a wide range of software tools, including Photoshop, iMovie, Cinema 4D, and SketchUp, students create a portfolio of original work. Throughout the semester, students complete projects, illustrate how to use these tools to construct a mental image, and assemble it into a digital reality. In addition to learning the principles of user-interface design and animation, students study timing, use of a storyboard, modeling, motion, rendering, and editing.

CS & E Projects: Dynamic Web Design—.5 credit; second-semester course

Open to: 10, 11, 12
Prerequisites: CS2 or Programming & Probability (I or II)

In Dynamic Web Design, students acquire a foundation for building dynamic websites using a wide range of web-development tools. Using HTML, CSS, JavaScript, PHP, and mySQL, students learn how to develop a website that can interact with data stored in a database. Over the course of the semester, students design, test, and deploy a dynamic website for a "client." The course covers an overview of networking, DNS, web server setup, website security, and the client-server model.

CS & Engineering Topics

CS & E Topics: Engineering—.5 credit; first- or second-semester course

Open to: 10, 11, 12
Prerequisites: none

This course is an introduction for students with an interest in engineering. Students are introduced to the field by considering the impact of engineering on daily life and current events. Through reverse-engineering studies and some common techniques, the course introduces effective design methods. Students work on several engineering projects to experience and participate in the design process. The class also works on problems that require an engineering approach and a collaborative process. Students explore ethics as they relate to engineering through literature, film, and current events, where responsible

practices (as they relate to issues such as environmental impacts and needs, historical and recent engineering disasters, and artificial intelligence) are discussed.

CS & E Topics: Programming & Probability—.5 credit; first- or second-semester course

Open to: 11, 12
Prerequisites: enrollment in or completion of Math III, or permission of instructor in consultation with the assistant principal for academic affairs

Programming & Probability introduces students to programming and explores a wide range of problems using Monte Carlo methods. A Monte Carlo method involves the use of a computer simulation to draw conclusions about the nature of a random experiment. Specific topics covered include Kolmogorov's Axioms and the definition of a probability measure; sample spaces, events, and partitions; the inclusion/exclusion principle; independence; conditional probability; and probability mass functions. Projects in Mathematica introduce programming topics, including data types, control structures, functions, arrays, and polymorphism.

CS & E Topics: Robotics—.5 credit; first- or second-semester course

Open to: 10, 11, 12
Prerequisites: none

Robotics introduces students to programming microcontrollers along with topics in electrical and mechanical engineering. Students learn to use digital and analog signals to read and control sensors, speakers, motors, and servos through an Arduino. Students explore mechanical-engineering concepts, including transmissions, pulleys, winches, belts and cables, wheels, steering, and suspensions. Students then apply these concepts to design and build various projects during the semester. Students learn engineering design processes and practice iterative design; prototyping, testing, analyzing, and refining their projects.

CS & E Topics: Computer Science Advanced Topics—.5 credit; first- and/or second-semester course

Open to: 11, 12
Prerequisites: CS3
May be repeated for credit.

Students who wish to sharpen their research skills by investigating a specific advanced topic in computer science are encouraged to take this course. Students meet once a week to

present formal research papers to the group and lead a discussion. In addition, they choose an area of interest and perform a semester-long research project culminating in two parts: a research paper and an implemented project relevant to the area of research. During the three unscheduled periods each week, students are required to spend time reviewing online course content, including podcasts and research resources.

English

Throughout four years of English, the department's goal is to share the beauty and power of language and literature. Courses challenge students to read critically, think logically, and write persuasively. Through class discussions, analytical writing assignments, informal journal writing, and creative projects, instructors encourage students to take risks and refine their critical voices, both in writing and in class discussion.

English 9—1 credit; year course

Open to: 9
Prerequisites: none

This course introduces students to different genres of literature, including poetry, drama, nonfiction, the short story, and the novel, and emphasizes the development of critical thinking and writing skills.

British & Anglophone Literature—1 credit; year course

Open to: 10
Prerequisites: English 9 or equivalent

Beginning with the epic poem Beowulf, students study British and Anglophone literature through the contemporary period. Students continue to write analytical essays and develop their interpretive powers.

Literature of the United States—1 credit; year course

Open to: 11
Prerequisites: English 10 or equivalent

This course explores the literature of the United States from the Puritans to the present. Through careful study of prose, poetry, and drama, students examine works of American

romanticism, realism, and modernism. The course places particular emphasis on analytical essays, with the opportunity for a few inventive and reflective personal compositions.

12th Grade English Courses

In 12th grade, English courses are semester-long offerings that explore a range of national literatures, historical periods, literary genres, and themes. Seniors must take one course each semester.

Classical and Heroic Literature—.5 credit; semester course

Open to: 12
Prerequisites: Literature of the United States or equivalent

In this course, students study myths and legends from ancient Greek and Roman cultures, ranging from tales of the Trojan War to Greek tragedies. The class considers how these literary works depict the human condition and particularly the separation between the average person and a hero or a god. It also considers how myths and legends become a means of understanding and exploring various forms of cultural identity as the stories are retold through time. Despite the strangeness and distance of the cultures represented in these texts, students may find some universal truths in them. Readings may include selections from Greek and Roman mythology and philosophy, Homer, Sophocles, Euripides, Virgil, and Ovid.

Topics In Contemporary Literature—.5 credit; semester course

Open to: 12
Prerequisites: Literature of the United States or equivalent

From global pandemics to Afghanistan to magical realism and the gaze of Hollywood, students spend a semester exploring modern subjects and literary works published since the year 2000. Other notable topics include: immigration, family, consumerism, womanhood, and the relationship between Asia and the United States. Authors may include: Ling Ma, Jamil Jan Kochai, Jennifer Egan, Danez Smith, and Nam Le.

Environmentalist Literature—.5 credit; semester course

Open to: 12
Prerequisites: Literature of the United States or equivalent

In this course, students read environmental literature while interrogating the role of literature in reimagining, ameliorating, or even resolving environmental problems. The course title, Environmentalist Literature, frames the reading, creating, and interpreting of environmental

literature as explicitly political acts in dialogue with the broader social and intellectual efforts of environmentalism. Just as environmentalism seeks to improve human beings' relationship to the natural systems upon which they depend, this course seeks to do the same by reading literary texts and presenting important lines of environmental inquiry.

Family Stories—.5 credit; semester course

Open to 12

Prerequisites: Literature of the United States or equivalent

This course explores various stories that focus on family life. Students consider the complexity of family and address various questions, such as: How do different forms tell the story of a family, in addition to a character? How do families restrict or enhance individual characters' freedom? How do family relationships shape identity? How does gender influence the relationships in the narrative? What particular details come into view when the scope of a story is restricted to a household? The course may explore several genres, including poetry and film, in addition to fictional prose. Recent texts have included Colson Whitehead's Sag Harbor, Gabriel García Márquez's One Hundred Years of Solitude, Vivek Shanbhag's Ghachar Ghochar, Jesmyn Ward's Sing, Unburied, Sing, and Mira Nair's Monsoon Wedding.

Fantasy Literature—.5 credit; semester course

Open to: 12

Prerequisites: Literature of the United States or equivalent

We will read fantasy literature for delight and meaning. Rather than regarding them as merely childish diversions, we will explore fantasy stories as intricately wrought literary works of the human imagination, worth reading at any age. The course also delves into why fantasy is attractive to so many readers: Why are we drawn to myths and fairy tales, as opposed to other kinds of stories? C.S. Lewis writes, "To construct plausible and moving (other worlds) you must draw on the only real 'other world' we know, that of the spirit." What does fantasy reveal about the human spirit? We will also practice (ungraded) creative writing as you will be asked to fabulate a world of your own. Readings are from J.R.R. Tolkien, C.S. Lewis, Ovid, Andrew Lang, Angela Carter, Philip Pullman, and Ursula K. LeGuin.

Gothic Literature—.5 credit; semester course

Open to: 12

Prerequisites: Literature of the United States or equivalent

The Gothic is a genre of literature that explores the aesthetic, narrative, and psychological dimensions of fear. From supernatural stories to haunting tales about the uncanny nature of

the everyday world, Gothic fiction provokes enduring questions about darkness, the unknown, the nature of life, and the boundaries of the human while simultaneously reflecting the social anxieties of its particular time and place. In this class, we will first read a selection of Gothic short stories and poetry from the last three centuries to sample the breadth of the genre and understand its key features. Then, we will read two Gothic novels, one from the 19th c. and one from the 20th/21st c. Possible texts include Dracula, Carmilla, Frankenstein, The Picture of Dorian Gray, The Turn of the Screw, Rebecca, Beloved, Mexican Gothic, and Sing Unburied Sing. Course texts may be supplemented with films such as Nosferatu, Rosemary's Baby, Get Out, and The Witch.

Haunted: Ghosts, Possession, and Gender in Literature—.5 credit; semester course

Open to: 12
Prerequisites: Literature of the United States or equivalent

Haunting, ghosts, and demonic possession make frequent appearances in literature, often in the context of characters who are grappling with seismic shifts in cultural, social, or historical experiences. The figure of the ghost has been developed by authors seeking to grapple with the ongoing effects of modern slavery, settler colonialism, state-sponsored terrorism, the holocaust, and personal trauma and loss. The course texts include: The Sentence by Louise Erdrich, Beloved by Toni Morrison, Rebecca by Daphne de Maurier, and Freshwater by Akwaeke Emezi. These are stories of women who endeavor to address their own experiences of loss, while managing the ghosts (literal and otherwise) that spring from that trauma. Note: these texts are not in the horror genre. While they address unsettling aspects of the human experience, including literary engagement with the supernatural, this is not a course on horror fiction.

Latinx Literature—.5 credit; semester course

Open to: 12
Prerequisites: Literature of the United States or equivalent

In this course, we will read works of literature by individuals of Latin American origin who live in the United States. As of the 2020 census, 62.1 million "Latinos" make up nearly one-fifth of the United States' population. This demographic includes people of Indigenous, Mexican, Dominican, Cuban, Puerto Rican, as well as Central- and South American ancestry. We will consider literature of the 20th century but pay special attention to 21st century texts which have been published during a moment of acute cultural negotiation in which who counts as "Latino" has diversified and the gender-inclusive label "Latinx" has been debated. Like all writers, Latinx authors express a myriad of ideas and attitudes in their writing. We will read a variety of works of different genres, but all course texts will highlight individuals'

relationship to Latinidad, i.e., their sense of belonging to a shared racial, linguistic, political, and colonial past and present. We will consider the utility and drawbacks of studying Latinx Literature as a distinct genre: what is productive about studying these works as a canon and what is obscured or erased?

LGBTQ+ Literature—.5 credit; semester course

Open to: 12
Prerequisites: Literature of the United States or equivalent

This course concerns literary works by and/or about LGBTQ+ individuals from the turn of the 20th century to the present. Central to the course are questions of sexuality, gender, sex, desire, and identity; we will consider how these topics intersect with a broad range of other themes specific to each text. Course material will also be contextualized with student research presentations on major historical figures/events in modern LGBTQ+ history. Recent texts have included The Picture of Dorian Gray, The Color Purple, The Death of Vivek Oji, The Book of Salt, and Fun Home. Novels will be supplemented with films such as Paris is Burning, Moonlight, Carol, Tangerine, and Happy Together.

North American Indigenous Literature—.5 credit; semester course

Open to: 12
Prerequisites: Literature of the United States or equivalent

This course begins with the roots of North American Indigenous storytelling in oral traditions and leads to contemporary literature. Our selected texts explore the ways in which Indigenous cultural identity is impacted by modernity, and in what ways our selected authors are interrogating contemporary Indigenous experience through the lens of colonialism and other historical forces. There will also be opportunities to interrogate the many facets of intersectionality in the experiences of the characters, as we consider gender, sexuality, age, geography, and the ways in which these identifiers complicate and inform the Indigenous experience within the texts. These complex works offer students both a chance to engage with challenging authorial choices (discontinuous narrative, surrealism, etc.) and the opportunity to consider the particular literary elements of these works, like the use of humor in storytelling. The selected texts also offer perspective on how these authors may celebrate and aim to preserve ritual and tradition through their poetry, short stories, memoir, and novels, and create space for students to attend to this perspective critically and analytically. Potential authors may include Sherman Alexie, Leslie Marmon Silko, Ernestine Hayes, Tommy Orange, Louise Erdrich, and Simon Ortiz.

Outsiders—.5 credit; semester course

Open to: 12

Prerequisites: Literature of United the States or equivalent

Students in this course encounter works concerned with the role, perspective, and voice of "the outsider." Outsiders—those on the margins—have been some of the most memorable characters in literature. As observers and witnesses, outsiders often provide insightful observations about the communities from which they are excluded. Placing importance on this perspective, students consider questions regarding the nature, worth, and qualifications of being an outsider. Recently taught authors include Kazuo Ishiguro, Toni Morrison, Zadie Smith, Monique Truong, Emily Brontë, Ocean Vuong, and Sayaka Murata.

Page and Stage—.5 credit; semester course

Open to: 12

Prerequisites: Literature of the United States or equivalent

In this course, we will read plays in the classroom and study their presentation and meaning on the theatrical stage. The reading list will be determined by what's being staged at the school and in the local community. In addition to scheduled class time, all enrolled students will be required to attend up to three class excursions to live performances which will occur in the evening during the week or in the afternoon or evening during the weekend outside of typical school hours. After each performance, we will attend a talkback conversation with a combination of directors, actors, and/or production designers. Throughout the semester, we will consider the collaborative dynamic between page and stage, i.e., how a playwright's script guides but does not control the totality of figurative expression. In addition to analytical essays, students will compose a performance review and a directorial concept.

Shakespeare—.5 credit; semester course

Open to: 12

Prerequisite: Literature of the United States or equivalent

The goal of this course is for students to understand and enjoy selected works of William Shakespeare through careful close reading of the texts. Students read much of the works in class. The course involves analytical writing, tests, journal work, and, sometimes, performance work.

World Novella—.5 credit; semester course

Open to: 12

Prerequisites: Literature of the United States or equivalent

This course offers students the opportunity to study and enjoy literature from outside the United States and Britain. The novella, a work of fiction shorter than a novel and longer than a short story, offers an intensive exploration of theme and character at a length that can be read in one or two sittings. As such, students are able to study nine of the world's most meaningful and widely read stories of the past 125 years. Writers have included Fuentes (Mexico), García Márquez (Colombia), Hedayat (Iran), Kafka (Prague), Mahfouz (Egypt), Mann (Germany), Okuizumi (Japan), Rostand (France), Rushdie (India), Tolstoy (Russia), Head (Botswana), and Diop (Senegal).

History

The Upper School history curriculum includes an examination of regional histories of the world and U.S. History. Three years of history—to be taken in 9th, 10th, and 11th grade—are required. In 9th and 10th grade, all students must complete year-long requirements devoted to regional studies. In 11th grade, students must take History of the United States or American Studies. Students attending School Year Abroad or approved semester programs as juniors will take History of the United States or American Studies during their 12th grade year. Students attending a semester program in the spring of 11th grade may select a 12th grade elective in the fall semester of 11th grade.

Chinese Studies Program

In honor of the memory of John Fisher Zeidman '79, Sidwell Friends School founded a Chinese Studies Program in 1983. The program comprises both Chinese-language and Chinese/East Asian history courses. In addition to these curricular offerings, the program includes a library resource center devoted to China and East Asia, frequent speakers, trips to China, and the opportunity from the School to apply for a fellowship to study in China after graduation. The objectives of the program are to not only expose students to China but to build a strong foundation in the study of Chinese language, history, and culture. For information on Chinese-language offerings, refer to the Modern and Classical Languages section of this guide, and for information on Chinese and East Asian history offerings, refer to the History course offerings listed below.

9th and 10th Grade

In 9th grade and 10th grade, students at Sidwell Friends School begin their careers as historians by undertaking two year-long survey courses that provide them with a deep understanding of two of the six following regions of the world: Africa, East Asia, South Asia, Latin America, Europe, and the Middle East. By design, the courses survey the major developments of that region's history leading into the 21st century. Through the study of social, economic, political, and cultural change, students critically examine the meaning of "progress" in a world region while considering the origins and transformations of civilizations, empires, nation-states, societies, and cultures. Students explore key global phenomena that have shaped the regions of the world in which we live, including tradition, individualism, nationalism, revolution, war, capitalism, modernization, democratization, and globalization. The regional courses make significant use of primary sources rooted in disciplines such as art, philosophy, religion, economics, media, and literature. In each year students write a research paper that includes the use of substantive primary sources of their choice.

The two-year regional studies curriculum is designed to provide historical depth, while also enabling students to develop critical reading, thinking, writing, and speaking skills that are introduced in 9th grade and further honed in 10th grade. Within the 9th grade year, common touch points among the six regional courses include the larger topics of pre-1500 civilizations and empires, global encounters and exchange, industrialization, the growth of nationalism, colonialism and imperialism, the global conflicts of the early 20th century, the Cold War, decolonization, and late 20th-century globalization. Each year-long course provides students an opportunity to develop expertise in a region and grow their understanding of regional histories in the context of broader global interactions and encounters. During course selection, 9th grade students will be placed into one of the six regional history courses, and 10th grade students will have the opportunity to rank their preferences among the remaining five courses.

African History—1 credit; year course

Open to: 9 and 10
Prerequisites: none

African History grapples with the emerging recognition by contemporary historians that Africa and Africans have been an integral part of global history, and that the history of the world cannot be adequately understood without taking African contributions and developments into account. African history also cannot be fully appreciated without an awareness of Africa's relationship to broader currents of world history. This interdisciplinary course starts off conceptually – how has the study of Africa changed over time – before

diving into geography and history. The fall semester explores the relationship between power, geography, and religion through studying the African societies and empires of classical antiquity and the middle ages in North Africa, West Africa, and East Africa. It further examines Africa's long and complex relationship to the world religions of Christianity and Islam. The spring semester highlights the role of Africans in the Age of Exploration and Imperialism, and how globalization has impacted Africa during the World Wars, the decolonization period, and the postcolonial era. As students learn about these historical developments, they will reflect constantly on the ways in which the history they are learning is being and has been represented. Additional assignments will ask students to gain expertise about one African country (and region) of their choosing by following its current events, researching its history, and giving period presentations about the country in relation to the themes of the course. The course concludes with a research paper in the second semester on a topic of their choice.

History of East Asia: Tradition and Modernity—1 credit; year course

Open to: 9 and 10
Prerequisites: none

This course explores, in the first semester, the philosophical, religious, social, political, and economic foundations of East Asian civilization from a historical perspective and through literature and art. The geographical focus is primarily on China and Japan, but the course also looks at Korea and Vietnam. The first semester covers the broad period from the Bronze Age to the beginnings of modernism. In the second semester, the course explores the development of modern East Asia through the impact of Western imperialism and the rise of nationalism and revolution in the twentieth century. The course is designed to help students encounter a historical tradition outside the Western experience, to expose students to primary sources in translation, to introduce different approaches to the study of history, and to help students better understand the world today and the historical forces that have shaped it. Students write a research paper in the second semester on a topic of their choice.

Social & Political Change in Latin America—1 credit; year course

Open to: 9 and 10
Prerequisites: none

Latin America is a complex region, filled with contrasts, challenges, and possibilities. With an intersection of indigenous, African, and Iberian heritages, the region comprises a heterogeneous population with varied cultures, identities, and traditions. Though similar legacies of Spanish and Portuguese conquest and colonization unite the region, unique national identities have evolved based on each country's individual history and particular political, economic, and social structures, institutions, and societies. This class explores the

commonalities as well as the distinctions found throughout Latin America and the Caribbean. In doing so, students examine economic stratification, dictatorship and democracy, social movements and revolution, identity (race, ethnicity, and gender), human rights, and globalization. Moreover, the class works toward understanding socio-economic and political continuity and change from a Latin American perspective, using sources that represent a cross-section of voices from different countries and sub-regions in the hemisphere. Students write a research paper in the second semester on a topic of their choice, using a regional and interdisciplinary studies approach to connect key concepts and regional outcomes with pivotal historical phenomena.

The History of the Modern Middle East—1 credit; year course

Open to: 9 and 10
Prerequisites: none

This course focuses on the history of the Middle East in the 19th and 20th centuries. In the first weeks of the course, the class begins by reviewing the civilizations and empires that existed in the region in the ancient and pre-modern period, such as the early Caliphates and the Ottoman Empire. The class also discusses the foundation of Islam. Then the class slows down and investigates the modern period in more depth, focusing on specific case studies and conflicts such as the Great 19th century transformation, the Arab-Israeli conflict, the watershed events of 1979, and recent conflicts (up to the Gaza War of 2008–2009). Students write a research paper in the second semester on a topic of their choice.

The History of South Asia: Foundations and Development—1 credit; year course

Open to: 9 and 10
Prerequisites: none

The History of South Asia is a yearlong course that traces the story of India and her neighbors, from prehistory to the modern era. The class begins with the roots of Hinduism in the Indus River Valley and then examines the rise of Hindu philosophy, literature, and art. Over the course of the fall, students study the major political, social, and cultural developments of the Indian subcontinent, with reference to the great empires, the dawn of global trade, and the effects of colonialism. In the spring semester, the class shifts to a study of South Asia's path to democracy, including units about Indian independence and the partition, regional conflicts, and modern development. Students also write a research paper in the spring.

The History of Modern Europe—1 credit; year course

Open to: 9 and 10 (open only to 9th grade during the 2025-2026 academic year; open to 9th and 10th grade during the 2026-2027 academic year)
Prerequisites: none

The History of Modern Europe is a year-long course that traces the story of Western and Eastern Europe from the mid-15th to the late-20th century. We will begin with Europe on the cusp of three massive transformations – the cultural movement of the Renaissance, the religious upheavals brought by Protestantism, and the new encounters with people from across the globe – and in the fall semester, follow those changes and their wider impacts during the early modern era. Over the remainder of the semester, we will examine the new ways that Europeans began to view the natural world and the larger structures of politics and society, and finish by focusing on the French Revolution and its continent-wide reverberations. In the spring semester, our focus will center on the changes wrought by industrialization, new political ideologies such as nationalism, and imperialism. In particular, we will see how these factors culminated in the global conflict of World War I, which in turn laid the groundwork for political revolution, the growth of fascism and totalitarianism, and a second, even more devastating, global conflict: World War II. Our final unit will focus on post-war Europe, and examine the impact of the Cold War, decolonization, and modernizing social changes on the continent. Students write a research paper in the second semester on a topic of their choice.

11th Grade

American Studies—1 credit; year course

Open to: 11, 12 (for students who have participated in a Sidwell-approved junior year or semester away)
Prerequisites: 9th and 10th grade history

American Studies is an interdisciplinary survey course that uses a variety of sources, including theory, literature, television, art, poetry, architecture, advertisement, music, food, and fashion to explore what it means to be "American." The course bases the study of American history, people, and society on a basic set of questions: What are the stories we (Americans) tell ourselves about ourselves? Who gets to tell these stories? How do different texts, artifacts, images, events, spaces, or places tell stories? And how are American stories challenged and changed over time? By examining closely not only historical events, but also how meaning and self-definition are conveyed and continually reconstructed through culture, students analyze American identities in conjunction with ever-changing political, social, and economic realities. Independent research on a topic of the student's choice is a

key component of the course. Course requirements may also include take-home essays, unit tests, and semester exams.

History of the United States—1 credit; year course

Open to: 11, 12 (for students who have participated in a Sidwell-approved junior year or semester away)
Prerequisites: 9th and 10th grade history

This year-long course offers a survey of U.S. history from colonial times to the present. The class places emphasis on political, social, economic, diplomatic, and military events that have shaped the nation's development. Independent research on a topic of the student's choice is a key component of the course, and considerable class time is devoted to the analysis of primary materials. Course requirements also include take-home essays, unit tests, and semester exams.

12th Grade

These classes are open to all 12th graders and to those 11th graders participating in a Sidwell Friends–approved semester-away program second semester of junior year. Some of the electives listed below may not be offered in a given year.

Topics in African American History—.5 credit; semester course

Open to: 12
Prerequisites: History of the United States or American Studies

This senior seminar explores African American History from the colonial times through the present. The readings are almost exclusively primary sources so that students can interrogate and interpret them in a discussion-based format. This semester-long course begins with an initial analysis of colonial cases, statutes, and customs and their enduring impact; it concludes with an extended examination of the Civil Rights and Black Power movements. However, the bulk of the course focuses on the cultural variety of African American communities during different eras and the demands on leadership over those same periods. Students will write in-class and traditional essays and lead class discussions to deepen their understanding of Black lives in the United States.

Anthropology—.5 credit; semester course

Open to: 12
Prerequisites: none

Studies in Anthropology explores the meanings of culture through case studies drawn from classic ethnographies from the seminal scholars in the field: Malinowski, Evans-Pritchard, Levi-Strauss, Boas, Geertz. Students learn about different approaches to the study of human societies, from functionalism and structuralism in the European tradition, to "thick description" and the post-structuralist turn in American cultural anthropology, to recent studies in social anthropology framing local societies in a broader global context of political economy. Rather than attempt a systematic survey of the discipline, Studies in Anthropology exposes students to a wide range of the most thought-provoking and fascinating stories in the study of culture.

Topics in Art History—.5 credit; semester course

Open to: 12
Prerequisites: none

In this topical survey of art history, the class begins with several scholarly inquiries into the nature of artwork: What is art? How do we study it? How and what does artwork communicate? Approaching the subject as a reflection of its time and as a projection of the human experience, students move from the ancient cave paintings of the Paleolithic era to the diverse compositions of modern art. Over the course of the semester, students become familiar with artistic styles and trace how these develop and change in different periods; just as important, they also gain an understanding of the social and historical contexts of the works they study. As part of the experience, the class will take a field trip to experience the artwork firsthand. Students can expect to write several thematic essays in addition to regular in-class assessments, short presentations, and a final exam.

Comparative Government—.5 credit; Semester course

Open to: 12
Prerequisites: none

The field of Comparative Politics studies governments around the world and includes the study of political institutions and regimes; electoral behavior and procedures; social movements and organizations; and protest and revolution. Looking to understand relationships that explain socio-economic and political phenomena, comparative studies investigate both the contemporary political frameworks around the world as well as the historical developments that have created modern systems. To get a sense of the varied

approaches used to study political developments in different countries, in this course, we will read diverse social science works. While our case studies will take us around the globe, there will be a heavy emphasis on comparative political analysis of Latin America, as this region offers opportunities for deep dives into questions concerning legacies of colonialism and slavery, for example. As a reading and discussion seminar, we will rely on primary and secondary sources to engage in case studies. In doing so, students can come away with an understanding of the contextual challenges to democracy and democratization around the world as they learn to access new tools to analyze puzzles and pressing questions surrounding authoritarianism and justice.

Comparative Religion—.5 credit; semester course

Open to: 12
Prerequisites: none

Students in this course explore the beliefs and practices of the world's major religions: Hinduism, Buddhism, Judaism, Christianity, and Islam. To ground the study, the course begins with an introduction to religious theory and method, sampling works from such thinkers as Emile Durkheim, William James, and Mircea Eliade. Students then spend the majority of the course examining the major traditions' formative texts and contemporary movements, tracing the evolution of each tradition into the modern era. During the study of Hinduism, for example, students read selections from The Bhagavad-Gita and Upanisads, later relating these key works to the life of Gandhi and his satyagraha movement. Over the course of the semester, students can expect to write several comparative thematic essays in addition to focused in-class assessments and a final exam. This seminar is best suited to those students who are prepared for a high level of analysis and eager to discuss the role of religion not only in history, but in the overall human experience.

Metropolitan Policy And The Dmv—.5 credit; semester course

Open to: 12
Prerequisite: none

The DMV introduces students to the DC metropolitan area where we live and to the tools to understand, analyze, and problem-solve the region's issues. Students examine the central areas of challenge facing U.S. metropolitan areas and past and present approaches to addressing them. Major areas of focus include education, housing, transportation, criminal justice and public safety, public health, and economic development. Students have the opportunity, as part of the class, to work in partnership with local organizations on solving problems in the DMV. Course materials range from scholarly journal articles and think tank policy proposals to local experts on metropolitan policy.

History of Science and Technology—.5 credit; semester course

Open to: 12
Prerequisite: none

Questions about the natural world have existed since the beginning of written history. This course considers those questions—considering not only what people "knew" but how they knew it—by examining the major moments in the history of science and determining how both knowledge of the natural world and methods of inquiry come to change. Students also consider the tension between technical practice and intellectual theorizing, which have been the hallmark of the practice of science from the ancient world to the present. After establishing a theoretical framework, the class investigates key points of change in five different units: the Ancient World, the Islamic World and China, the Scientific Revolution, the Industrial Revolution, and the Atomic Age. In addition to an examination and discussion of key primary and secondary sources related to the history of science, students also use class time for hands-on, experiential activities; group-based projects and problem-solving; and individual research.

Human Behavior and Mental Processes—.5 credit; semester course

Open to: 12
Prerequisites: none

This course is designed to help students think consciously, deliberately, and skillfully about human behavior. Students are exposed to the range of perspectives that make up modern academic psychology: historical and theoretical perspectives; psychological development; and social, cultural, clinical, and cognitive approaches. Students are asked to question deeply held beliefs, unearth unsettling truths, and provide startling insights and solutions to complex questions. They discover how psychology affects us as groups and as individuals, contributing as much to the public debate about how societies are, or might be, structured as it does to diagnosing and treating mental disorders. The course is designed to leave students with a better understanding of the way humans think and a deeper understanding of themselves, other people, and the world in which they live. The course uses a textbook and accompanying readings; there are assessments as well as a final paper and project.

Modern American Popular Culture—.5 credit; semester course

Open to: 12
Prerequisites: History of the United States or American Studies

This course studies topics related to the histories of rock 'n' roll, television, rap, film, commercial radio, music videos, Netflix, magazines, and the home computer by looking at the dialectic relationships among culture, business, and politics. The class pays special

attention to histories of gender, race, sexuality, class, and environment embedded in pop culture. In 1941, Henry Luce called on American officials to usher in "the first great American century" by abandoning its isolationism and engaging in a nationalistic missionary campaign he hoped would usher in an era of global peace and prosperity. American participation in World War II did, in fact, revolutionize the nation's place in world politics, economics, and culture. The dizzying pace and evolutions of artistic production track major developments in U.S. history: World War II, the Cold War, the urban crises, suburbanization, the Vietnam War, Watergate, the Rights Revolutions, Stagflation, Black Power, the AIDS epidemic, and the crack crisis to name a few. Cultural developments also followed the profit-making interests of the companies that mass-produced culture and entertainment during the second half of the century. This course thus investigates the roles of mass consumer culture in U.S. developments domestically and globally.

Modern China: Revolution, Reform, and Beyond—.5 credit; semester course

Open to: 12
Prerequisites: none

Students in this course investigate the extraordinary political, social, and economic developments in China during the twentieth century. The course begins with a brief look at the Qing Dynasty and the Republican Era in order to understand how and why the Chinese Communist Party (CCP) began. The class spends the bulk of the semester examining the policies enacted by Mao Zedong and the government of the People's Republic of China from 1949-1976, including an in-depth look at the Cultural Revolution (1966-1976). Next, students will examine the reform era under Deng Xiaoping, focusing on economic reforms and the democracy movement. Finally, the class will spend time looking at contemporary issues such as the present political structure, the judicial system, religious freedoms and limitations, the environmental situation, and foreign policy.

Perspectives on American Government—.5 credit; semester course

Open to: 12
Prerequisite: History of the United States or American Studies

This course studies the structure and workings of the government of the United States. After beginning with a review of the Constitution, students examine in detail the three branches of the national government and their powers and interaction; federalism and states' rights; the role of elections, political parties, interest groups, and the media in influencing public policy; and various civil rights, civil liberties, due process, and privacy limitations on governmental action. An important objective of the course is to discuss each of these institutions and issues in light of: (1) specific historical ideas and events; and (2) specific contemporary political issues and disputes. The course includes two case studies on Watergate and the

"national security state." This course is best suited to students who are committed to extensive reading from a wide variety of sources. In addition to the Constitution, the course makes generous use of historical documents, speeches, public reports, and judicial decisions, as well as more recent articles by scholars and journalists. In addition to several take-home essays, students prepare and present a paper on a public-policy dispute of their choosing.

Perspectives On Global Economics—.5 credit; semester course

Open to: 12
Prerequisites: none

Welcome to Global Economics! This course is designed to provide exposure to microeconomic analysis, which facilitates a more thorough understanding of basic macroeconomic theory and its relevance to the decision making of individuals, corporations, and governments. Through observation and discussion of current world events, political discourse, and economic theory, we will assess the reliability of basic economic models, the effectiveness of specific government policies, and the significance of particular macroeconomic issues. Students will also analyze individual decision making with regard to personal finance. The class uses discussions, papers, team problem-solving, presentations, and tests to consider critical questions relating to the government's role in managing the economy, the effect of individual values on economic points of view, and the relationship between economics and politics.

Political and Philosophical Thought I: Foundations—.5 credit; semester course

Open to: 12
Prerequisites: none

For millennia, intellectuals and philosophers have posed a number of fundamental questions: What is the purpose of humankind's existence? How can one live the ideal life? What is the role of human reason? What is the ideal relationship between the individual and society? What is the ideal political structure? What is the nature of the relationship between the citizen and the state? How should humanity ultimately govern itself?

This course addresses these questions by examining a number of key texts that illustrate the various ways that men and women have attempted to explain the universe and their own place within it. In discussions, the class touches not only on political theory and philosophy, but also on economic and scientific theory, theology, and ethics. Readings center on western Europe (although are not fully limited to it) and proceed chronologically, beginning in the ancient world and concluding in the 18th century. The course is conducted as a seminar, and

class time focuses almost entirely on discussion of the assigned texts. Written assignments include two essays, weekly reading assignments, and an exam.

Political And Philosophical Thought II: Modernity—.5 credit; semester course

Open to: 12
Prerequisites: none

This course is a continuation of Political and Philosophical Thought I: Foundations—although students may take the second course without having taken the first—and it explores the same themes and ideas, with a focus on texts from the 18th century to the mid-20th century. The course is conducted as a seminar, and class time focuses almost entirely on discussion of the assigned texts. Written assignments include two essays, weekly reading assignments, and an exam.

United States Foreign Policy–.5 credit; semester course

Open to: 12
Prerequisites: none

This course aims to introduce students to the study of US Foreign Policy in terms of its historical roots, theoretical frameworks, institutional bureaucratic processes, policy analysis, and practice.

It is structured for students to gain practical experience generating and analyzing foreign policy recommendations in real time just like our foreign policy professionals do every day. Ultimately, the hope is that students emerge with a more informed sense of the United States' role in the international community, the capacity to grapple thoughtfully with whether or not we are prepared to accept the role we play, the tools of foreign policymaking and a schema for when to wield them, and lastly the vocabulary needed to understand and engage in discussions about foreign policy.

Women's and Gender Studies: An Interdisciplinary Introduction—.5 credit; semester course

Open to: 12
Prerequisites: none

This course offers an introduction to Women's and Gender Studies, an interdisciplinary academic field that asks critical questions about the meaning of gender in society. The primary goal of this course is to help students develop a critical framework for thinking about gender as both an identity and a category of analysis. Students also closely examine

the intersection of gender with other social identifiers including sexual orientation, race, ethnicity, class, religion, and age. Together, the class builds a dialogue around topics, including women's history and feminist foundations, gender/culture and socialization, the body politic (physical and sexual), gendered performance and relationships of power, economic structures and their effect on women, and the global context of gender. The course is conducted largely as a seminar and requires students to take an active role in leading class discussion and presenting material. The texts and readings used in this course focus primarily on the experiences of people in the United States. However, the course also draws on cross-cultural examples to deepen an understanding of gender in a broader context. Students can expect to write in-class and traditional essays and lead class discussions.

Mathematics

Introduction

The Upper School math curriculum is a continuation of the logical sequence of courses introduced in the Middle School. Three years of math are required, and a student must be enrolled in a math class during the 9th, 10th, and 11th grade academic years. The math courses that satisfy this requirement may not be taken pass/fail. Typical three-year sequences include:

1. Geometry with Integrated Algebra, Algebra 2(B), and Precalculus(B)
2. Geometry, Algebra 2, and Precalculus
3. Math I, Math II, and Math III.

Philosophy on Placement

It is the goal of the mathematics department to place students in courses that provide appropriate levels of challenge while allowing students to develop confidence in their skills. Studying mathematics requires practice and patience. Students should be placed in courses that stretch their intellect without causing undue frustration. Learning to write mathematics well and pushing through challenging problems are essential for growth for all students of mathematics.

Each year, members of the Math Department place current 9th, 10th, and 11th grade students in subsequent courses for the next academic year. Generally speaking, the department places a student who has done B-level work or better in the course that most commonly follows the current one. If a student has had difficulty maintaining B-level work, a student's teacher may instead recommend a different, more suitable course. On the other

hand, if a student has done exceedingly well, their teacher may recommend a more challenging next course. Students being considered for a move to a more demanding course have demonstrated a high level of capability and interest, and A-level work throughout the current course is expected. Supplemental or summer work may be necessary to make such a change in sequence. Any student who wishes to take a credit math course over the summer (and such courses must be taken at Sidwell Friends School), requires the permission of the department.

Students Entering Sidwell Friends in 9th Grade

Students newly admitted to Sidwell Friends for 9th grade meet with the Assistant Principal for Academic Affairs and the Math Department Head to discuss math placement, which is determined by assessing 8th-grade teacher recommendations and the curriculum of the 8th grade course along with a brief mathematics assessment that is also administered during the admissions process. This meeting allows the student and parents to gain a clearer understanding of the Sidwell Friends math program. The student's academic interests and overall academic load may also be a factor in placement decisions. The Sidwell Friends math program is designed to challenge students in a range of grade-level courses. In exceptional cases, a student may be placed in a math course above grade level. Most 9th graders enroll in Geometry for their 9th grade math course.

Most Common Sequences, 9th through 12th Grade

Students in the ninth, tenth, and eleventh grades will be placed in a course for the following academic year by the current math teacher. There are several paths from 9th to 12th grade in the Upper School. Prerequisites for each course are given in this curriculum guide.

Math Sequence

The diagram below shows the possible progression through the courses in the Sidwell Friends math program. Please note that a change in sequence requires departmental approval and may require supplemental work.

9TH	10TH	11TH	12TH	
Math I	Math II	Math III	Math IV	Linear Algebra
Geometry	Algebra 2	Precalculus	Calculus I	Calculus II
Geometry with Integrated Algebra	Algebra 2 (B)	Precalculus (B)	Statistics	

Within these sequences, the following progressions of courses are typical:

I. Geometry with Integrated Algebra → Algebra 2B → Precalculus B → Statistics I
II. Geometry → Algebra 2 → Precalculus → Statistics I

III. Geometry → Algebra 2 → Precalculus → Calculus I
IV. Math I → Math II → Calculus I → Calculus II
V. Math I → Math II → Math III → Math IV

Students are encouraged to meet with their current teacher to discuss expectations for placement in subsequent courses. Generally, a student maintaining a B average or higher will continue in the same sequence. If a student has struggled to maintain a B average, the teacher may recommend a different path for the following year. If a student has earned a solid A in both semesters and on semester exams, and wishes to change sequence by taking a more rigorous course in the following year, the student may be permitted to do so in some cases.

The department meets during the 4th quarter of the academic year to review all placements for the coming school year. Students wishing to discuss placement with the department head may request a meeting after having a conversation with the current math teacher.

Opportunities for Acceleration

- Changing Sequences Between School Years:
    - Geometry with Integrated Algebra (9th) → Algebra 2 (10th)
    - Geometry (9th) → Math II (10th)
    - Algebra 2B (10th) → Precalculus (11th)

- Summer Studies: In some cases, students exhibiting A-level work in both semesters and an interest in acceleration may enroll in a Sidwell Friends Summer Studies course with the current teacher's permission. A 10th grader in Algebra 2, as an example, would enroll in summer Precalculus with the teacher's permission. Students interested in summer acceleration must commit to a 6-week course that runs 8:30 – noon each day.

  Examples of a summer course and acceleration:

    - Geometry (9th) → Algebra 2 (10th) → Precalculus (summer) → Calc I (11th) → Calc II (12th)
    - Geometry (9th) → Algebra 2 (summer) → Precalculus(10th) → Calc I (11th) → Calc II (12th)

Not all students who earn an A in the fall and spring semesters should change their mathematics sequence. There are many factors that impact such a decision. Other academic commitments along with extracurricular activities should be weighed, as well as aptitude and interest.

Guidelines for Acceleration

A student who is a candidate for acceleration would typically:

- earn an A in the fall and spring semesters, and on semester exams.
- demonstrate an ability to make intellectual advances that are beyond the expectations of the current course.
- demonstrate maturity and independence in their approach.
- do all of the above without consistent experience of pressure and negative stress.

Other Departmental Policies

A student who earns a C- or below in a course that is part of a continuing sequence (e.g., Geometry, Algebra 2, and Precalculus) may need to retake the course or complete supplementary work in order to enroll in the next course in the sequence. The department head in consultation with the student's teacher makes this judgment.

The Math Department integrates topics in probability and statistics into the three-year sequence. These topics are on both the SAT and, and these topics are typically part of the standard curricula for the three-year sequence courses and provide a more comprehensive overview of topics that students may choose to pursue later in their education. As an increasing number of postgraduate pursuits require a good understanding of basic statistics and data analysis, the inclusion of these topics better prepares students for related courses both at Sidwell Friends and in later years of study. Discussing these topics also provides an additional opportunity for students to make cross-disciplinary connections between their math courses and courses in other departments at Sidwell Friends.

Geometry With Integrated Algebra—1 credit; year course

Open to: 9
Prerequisites: Algebra 1

Geometry with Integrated Algebra provides students an opportunity to study Euclidean geometry and apply algebra principles covered in Middle School mathematics courses. Areas of study include real numbers, lines in the plane, coordinate geometry, congruence, parallelism, similarity, and right triangle trigonometry.

Geometry—1 credit; year course

Open to: 9
Prerequisites: Algebra 1

Geometry provides students an opportunity to study Euclidean geometry and apply algebra principles covered in Middle School mathematics courses. Areas of study include real

numbers, lines in the plane, coordinate geometry, congruence, parallelism, similarity, and right triangle trigonometry. Geometry emphasizes the writing of deductive proof, versus the review of principles of algebra.

Math I—1 credit; year course

Open to: 9
Prerequisites: Algebra 1

Math I is an intensive and accelerated course in geometry and algebra. The class covers topics from the other geometry courses with greater attention to rigorous proof and the deduction of results from a small number of postulates. The course may also include additional topics beyond the scope of the other geometry courses. Emphasis on the writing of mathematical proof, as required in Math II and Math III begins in Math I. The course emphasizes methods of proof other than simple deductive reasoning.

Algebra 2 (B)—1 credit; year course

Open to: 10
Prerequisites: Geometry with Integrated Algebra or Geometry

Algebra 2(B) builds on the material of previous algebra courses. Topics include linear, quadratic, and rational functions. Students also study exponents, logarithms, sequences, and series. The course places an emphasis on problem-solving, the proper writing of mathematics, and the acquisition of skills needed to handle a variety of equations and inequalities.

Algebra 2—1 credit; year course

Open to: 10
Prerequisites: Geometry with Integrated Algebra, Geometry, or Math I

Algebra 2 builds on the material of previous algebra courses. Topics include linear, quadratic, and rational functions. Students also study exponents, logarithms, sequences, and series. The course places an emphasis on problem-solving, the proper writing of mathematics, and the acquisition of skills needed to handle a variety of equations and inequalities. Algebra 2 covers topics in Algebra 2(B), but generally with greater rigor.

MATH II—1 credit; year course

Open to: 10

Prerequisites: Geometry or Math I

Math II is an intensive and accelerated course covering topics in Algebra 2 and Precalculus courses.

Precalculus (B)—1 credit; year course

Open to: 11, 12

Prerequisites: Algebra 2 and Geometry

Students in Precalculus (B) study topics such as coordinate geometry, quadratic equations, circles, triangle trigonometry, exponents and logs, statistics, and probability.

Precalculus —1 credit; year course

Open to: 10, 11, 12

Prerequisites: Geometry and Algebra 2

In Precalculus, students study polynomial functions, exponential functions, logarithmic functions, trigonometric functions, and inverse trigonometric functions. Students examine polar functions and their graphs in the second semester along with basic probability and statistics. The class emphasizes graphing techniques and applications, and students use graphing calculators throughout the course. The study of trigonometry includes the graphs of trigonometric functions and their inverses, the Laws of Sines and Cosines, equations, identities, multiple-angle formulas, and radian measure.

Math III—1 credit; year course

Open to: 11

Prerequisites: Math II

Students cover topics including mathematical induction, sequences, series, and limits. The course lays the foundations for differential calculus. The emphasis in Math III is on rigorous work and independent responsibility for the mastery of proofs and an understanding of mathematical ideas.

Statistics I —1 credit; year course

Open to: 11, 12

Prerequisites: Precalculus, Precalculus(B), or departmental approval

This course may not be taken to satisfy the three-year math requirement.

This course is an intensive first-year college-level statistics course. Topics covered include: data basics, including study design and data collection techniques; exploratory data analysis, including data visualization and summarization; regression modeling, including logistic regression and linear regression with multiple predictors; statistical inference; and simulation methods. Students use statistical software on a regular basis. Students who successfully complete the course will be comfortable working with raw datasets as well as interpreting statistical analyses.

Calculus I—1 credit; year course

Open to: 11, 12

Prerequisites: Precalculus or Math II

This is a course in basic differential and integral calculus of one variable. Topics include limits, continuity, and maximum/minimum problems; Rolle's Theorem; the Mean Value Theorem; L'Hopital's Rule; Fundamental Theorem of Calculus; exponential and logarithmic functions; and an introduction to differential equations. The course makes extensive use of graphing calculators. Students must not only understand but prove many of the basic theorems in calculus.

Calculus II—1 credit; year course

Open to: 11, 12

Prerequisites: Calculus I, departmental approval

This course is a continuation of Calculus I. Topics include techniques of integration; applications of the definite integral; improper integrals; Newton's method and numerical integration; sequences and series, including Taylor's theorem and power series; and elementary separable and first- and second-order linear differential equations. Students must not only understand but prove many of the basic theorems in calculus.

Math IV—1 credit; year course

Open to: 12

Prerequisites: Math III, departmental approval

Math IV is an intensive and accelerated course in differential and integral calculus of one variable. It is for able and independent 12th grade students who have completed Math III. Areas covered in this course include: limits, continuity, and maximum/minimum problems; Rolle's Theorem; the Mean Value Theorem; L'Hopital's Rule; Fundamental Theorem of Calculus; infinite series; differential equations; vector valued functions; and polar functions. Students must not only understand but prove many of the basic theorems in calculus.

Linear Algebra—year course for 1 credit, or first-semester course for .5 credit

Open to: 11, 12

Prerequisites: Math III or permission of the department

Linear Algebra is a course for able 12th grade students who have taken or are currently enrolled in Calculus II or Math IV. Topics include: matrices, vector spaces, linear transformations, characteristic (Eigen) values. Students may take up additional areas of study, such as dynamical systems, during the second semester.

Modern and Classical Languages

The Department of Modern and Classical Languages is dedicated to preparing students to navigate a dynamic, interconnected world as multilingual global citizens. The department emphasizes developing students' proficiency in listening, speaking, reading, and writing. Strong and accurate language skills provide the foundation for students to excel in meaningful, real-world tasks and engage in deeper cultural exploration. Additionally, students have the opportunity to study for a year in France, Italy, or Spain through the School Year Abroad program.

Placement

Students new to the School will meet with a member of the Language Department to determine appropriate placement in an Upper School language course. The goal is to place each student in a course that matches their proficiency, while fostering their growth in an

environment that encourages taking academic risks. Similarly, students returning from a semester- or year-long program outside the school, or those wishing to switch to a different language, will complete a diagnostic assessment to ensure accurate placement.

For students continuing in a language sequence (e.g., French I, II) and earning a grade of C- or below, a fall placement exam will be required to advance. If a grade of C- or below is earned on this exam, students can either switch to a new language or discontinue language study (if the two-year graduation requirement has been met).

Chinese Studies Program

In honor of the memory of John Fisher Zeidman '79, Sidwell Friends School founded a Chinese Studies Program in 1983. The program comprises both Chinese-language and Chinese/East Asian history courses. In addition to these curricular offerings, the program includes a library resource center devoted to China and East Asia, frequent speakers, regular summer trips to China, and the opportunity from the School to apply for a fellowship to study in China after graduation. The objectives of the program are to not only expose students to China but to build a strong foundation in the study of Chinese language, history, and culture. For information on Chinese-language offerings, please refer to the Modern and Classical Languages Department curriculum listed below, and for information on Chinese and East Asian history offerings, refer to the History Department curriculum.

Chinese

In today's interconnected world, learning Chinese provides the opportunity to communicate with over a billion people and explore one of the world's oldest and most influential cultures. Chinese is essential for understanding a nation with significant global impact in business, technology, education, and international relations. The differences between Chinese and Western languages challenge students to think critically and creatively, fostering a deeper appreciation of cultural diversity and new perspectives.

Our Chinese program offers a rigorous series of courses tailored to meet the specific needs of our students. The curriculum begins with stories to teach high-frequency vocabulary and structures, enabling students to build language proficiency quickly. Students learn to read, write, and type characters without being required to write them from memory, focusing instead on practical communication skills.

Early courses focus on daily life topics, while advanced courses explore cultural and societal issues. Chinese culture is seamlessly integrated throughout, giving students a richer understanding of this complex heritage. Students develop vocabulary, grammar, and cultural knowledge while engaging in real-life scenarios and interacting with diverse materials, such as songs, movies, podcasts, traditional stories, and newspaper articles.

The goal of the Chinese program is to build a strong foundation in the language, inspire lifelong learning, and prepare students to thrive as global citizens.

Chinese I—1 credit; year course

Open to: 9, 10, 11, 12
Prerequisite: none

This introductory language course immerses students in spoken Chinese through stories. Together, teachers and students create stories and act them out in class using gestures, props, and acting to make the language comprehensible and engaging. Students focus on listening and reading to build a strong foundation in high-frequency vocabulary and fundamental language structures. At the start of the year, students learn common radicals. Once they've established a solid foundation, they progress to reading, writing, and typing characters. Students learn to narrate events, describe people and places, and share their opinions on topics related to daily life.

Chinese II—1 credit; year course

Open to: 9, 10, 11, 12
Prerequisites: 7th and 8th Grade Chinese, Chinese I or equivalent

In this course, students continue to work with stories, building on the foundation laid in Chinese I. They expand their vocabulary and learn more complex grammatical structures, improving their ability to describe, narrate, compare, and explain. The stories take on greater depth, sometimes drawing from classic and folk tales in China. The course also deepens students' cultural understanding through explorations of Chinese philosophy, literature, and art, offering a holistic language-learning experience. By the end of the year, students will demonstrate their progress through expanded written and spoken work showcased in digital portfolios and sharing sessions.

Chinese III—1 credit; year course

Open to: 9, 10, 11, 12
Prerequisites: Chinese II or equivalent

In this intermediate course, students continue to work with stories, building on their foundation from Chinese II. The stories are organized around the overarching theme of school life. Topics such as the first day of school, school subjects & schedule, new year resolution, extracurricular activities, relationships & friendship, will be covered. In stories, students will have sufficient practice with keywords, phrases, and structures to enable them to continue to improve their ability to describe, narrate, compare, and explain. In addition, topic discussions and role-plays that relate to the stories are used to offer students

opportunities to speak and think on the spot to compare and contrast the US and China. Students will be challenged to comprehend increasingly complex listening and reading materials and then use their language skills to engage in storytelling, perform role-plays, compose essays, and give multimedia presentations.

Chinese IV—1 credit; year course

Open to: 10, 11, 12
Prerequisites: Chinese III or equivalent

At this level, students move beyond discussing their daily lives to explore topics related to their immediate and broader communities. Through stories, movies, and microblogs, they compare and contrast cultural products, practices, and perspectives, particularly between Chinese and American cultures. This approach deepens their understanding of the forces shaping contemporary China and their own culture. As students' language skills strengthen, they expand their vocabulary, develop a broader repertoire of structures and discourse markers, and learn to express and support opinions with evidence. With these advanced skills, students are able to perform skits, deliver oral presentations, and interview Chinese speakers within and beyond the school community at a deeper and more substantial level.

Chinese V—1 credit; year course

Open to: 11, 12
Prerequisites: Chinese IV or equivalent and departmental approval

In this course, students use the Chinese language as a tool to explore and investigate Chinese cultural practices and perspectives. Students are engaged with stories, songs, Internet articles, television shows, and movies that illustrate cultural issues and serve as a basis for discussion and reflection. Students will also learn how to read and write more formal Chinese by reading authentic materials from newspapers and websites. While developing their understanding of contemporary Chinese society, students expand their vocabulary, strengthen their grasp of key grammar patterns, refine their listening and reading comprehension skills, and improve their ability to communicate in paragraph-level discourse. Throughout the course, students engage in discussions, role-plays, and presentations, and write emails, stories, and essays.

Chinese Seminar—1 credit; year course

Open to: 11, 12
Prerequisites: Chinese V or equivalent and departmental approval

This multidisciplinary course is designed for students who have completed Chinese V or the equivalent. In this course, students apply their Chinese language skills to examine contemporary issues in Chinese society. The teacher uses a variety of authentic materials,

including online news articles, video clips, and television episodes, to depict Chinese culture and help students improve their comprehension and analytical skills. Students devote class time to analyzing contemporary issues in China and resolving linguistic difficulties that arise. Outside of class, students compose persuasive essays in which they present their points of view on related issues. In addition, students give regular oral presentations on their preferred topics and facilitate class discussions.

French

In a world that has become more connected than ever, the study of French is a powerful tool in international diplomacy, business, education, and culture. French, like English, is deeply rooted in five continents. In Europe, not only is French spoken in France, but in Belgium, Luxemburg, and Switzerland. It is also spoken in Latin America (French Guyana) and Asia (Vietnam and Pondicherry, India). In Africa alone, French is the official or co-official language in over 20 countries. French is the native language of over 80 percent of Quebec's population. Moreover, la Francophonie, a movement and an institution headquartered in Paris, was created to form a bridge, linking diverse groups of peoples, cultures, and traditions in the French-speaking world, and to facilitate increased communication between the diverse cultures in a shared language.

The French program at Sidwell Friends immerses students in some of the world's most vibrant cultures and traditions.Through a natural progression of courses, the French program's main goal is to teach students how to understand, speak, read, and write French as well as to appreciate the geographic, historical, socioeconomic, and cultural wealth and diversity of the French-speaking world. Oral practice in the basic and intermediate courses uses an audio-visual program designed to develop natural speech patterns, pronunciation, and intonation.

Teachers select the books for each level carefully to discourage translation and to encourage reading and thinking in the target language as it is done in one's own language. The internet, French video clips, films and online resources are used to support their growing skills and dive into current events and points of grammar and culture.

All classes are conducted in French.

French I—1 credit; year course

Open to: 9, 10, 11, 12
Prerequisites: none

This course covers the fundamentals of elementary French through contextual presentation of vocabulary, grammar, and verb conjugations. Students start learning French with an integrated approach to listening comprehension, reading, writing, speaking, and culture. The

textbook, D'Accord Level 1, is supplemented by the online Supersite audio video program and a writing activity workbook. The video segment for each unit, about a group of students living in Paris, France's capital, exposes students to the vocabulary of daily life and covers a variety of socioeconomic and cultural features of France and the Francophone world. The course is designed to give students useful, everyday expressions that they can use immediately in real-life situations and prepare for future literary studies.

French II—1 credit; year course

Open to: 9, 10, 11, 12

Prerequisites: 7th and 8th Grade French, French I, or equivalent to be determined by teacher's placement

This course is in continuity with French I. Students expand and deepen their four language skills and broaden their vocabulary. The textbook, D'Accord Level 2, is supplemented by the online Supersite audio video program and a writing activity workbook. The video segment for each unit, about a group of students living in Paris, France's capital, exposes students to the vocabulary of daily life and covers a variety of socioeconomic and cultural features of France and the Francophone world. The course is designed to expand vocabulary, deepen grammatical and cultural understanding, and prepare for future literary studies.

FRENCH III—1 credit; year course

Open to: 9, 10, 11, 12

Prerequisites: French II or equivalent to be determined by teacher's placement

This intermediate course covers most of the verb tenses as well as the grammatical structures needed to move beyond the intermediate level. Students use La grammaire progressive du français grammar book throughout the year to gain a more in-depth presentation of the grammar. The teacher also introduces literature at this level. Students read Un billet pour le commissaire, a mystery, in the first semester. This book is well suited for this level as the structures increase in complexity as the story develops. The text is tangible, and the story builds based on facts. It prepares the students for reading Le Petit Prince in the second semester and introduces a philosophical dimension to French literature. The emphasis of this course is on oral and written work that becomes increasingly more challenging.

French IV—1 credit; year course

Open to: 10, 11, 12

Prerequisites: French III or equivalent to be determined by teacher's placement

In the first semester, this advanced course exposes students to the geography, history, and culture of France and French-speaking territories using the comprehensive book "La civilisation progressive du français". The second semester focuses on French literature. The teacher introduces a variety of French speaking authors from the Middle Ages to contemporary times using an anthology of French literature, followed by the in-depth study of a play, Huis Clos, by Jean-Paul Sartre. This leads to a group project of writing and performance of a play. This course further develops the students' skills to read, analyze, discuss, and write in French about the literary work of a variety of authors as well as the literary movements that they represent. It also provides a more nuanced and complex study of both grammar and conjugation and its applications in verbal and written works. On completion of this course, students should be well prepared to continue their French studies at an advanced level.

French V—Advanced Francophone Literature—1 credit; year course

Open to: 11, 12

Prerequisites: French IV or equivalent to be determined by teacher's placement

In this advanced course, the students study novels and a play by Francophone authors such as Albert Camus (Algeria), Camara Laye (Guinea), and Jean-Paul Sartre (France). The authors reflect a variety of literary trends and backgrounds. The works of authors such as Anouilh, Sartre, Ionesco, Césaire, and Diop (the list may vary) and the viewing of a documentary enrich the course. The study of each work includes in-class discussions led by the students or the teacher, essays, and oral work.

Latin

Latin is a window into ancient history, language, and literature. The Latin program teaches students the fundamentals of Latin grammar and vocabulary. From comparing Latin and English, students learn to trace the development of English and the Romance languages. Advanced students translate and analyze Latin literature, with a focus on political, social, and literary context. Readings are chosen from a variety of authors and genres. The program introduces students to ancient Mediterranean history and culture.

Latin I—1 credit; year course

Open to: 9, 10, 11, 12
Prerequisites: none

Latin I introduces students to the fundamentals of Latin grammar, vocabulary, and Roman history. Students practice through oral and written work. In addition, the class explores new English vocabulary through study of Latin derivatives. The course uses the textbook Suburani, which tells a story of ancient Roman citizens at all socioeconomic levels. The instructor supplements Latin-language instruction with the study of ancient mythology, culture, and history. Historical study often exposes students to simple, authentic Latin inscriptions. Some cultural topics include Roman mythology, daily life, government, sanitation, geography, and navigation. The course also explores the inequity in the ancient world. Students discuss Roman slavery and sexism. Students not only learn about Roman history, but also how the Latin language connects to it.

Latin II—1 credit; year course

Open to: 9, 10, 11, 12
Prerequisites: 7th and 8th Grade Latin, Latin I, or equivalent

This course is the sequel to Latin I as well as the 7th and 8th grade program. The teacher uses the early weeks of the year to review the previous year's work. Then, students begin learning intermediate Latin grammar. The most important grammatical leaps in Latin II are participles, the passive voice, and the subjunctive. Students also learn twenty new vocabulary words each chapter. As in the first year, the class emphasizes improving English vocabulary and recognizing derivatives from Latin.

Students continue to study Roman history and culture, but with a new focus on ancient Rome's impact on other areas of the Mediterranean besides Rome and Italy. The story of the textbook takes the characters to Carthage and ancient Syria. Students begin to look at more complicated Latin inscriptions that inform their study of Roman culture. Students especially spend a lot of time with archaeological objects during the unit on Pompeii. Latin II prepares students for Latin III, where they will transition to reading authentic Latin authors.

Latin III—1 credit; year course

Open to: 10, 11, 12
Prerequisites: Latin II or equivalent

The goal of Latin III is to finish the Suburani textbook and begin reading authentic Latin literature. Students begin reading authentic Latin in the second half of the year. Students focus on careful and deliberate translation as they get used to the quirks and challenges of

reading authentic Latin in a longer text. Students still need to learn a few more grammatical topics, like the present subjunctive and passive periphrastic. The class pauses from its reading to do so.

Students discuss the historical context of each text and author. Topics include Roman military, the impacts of Roman imperialism, and mythology. They also begin to analyze the literary choices and rhetoric of the author. Readings include prose from writers such as Seneca, Eutropius, and Cicero. As time allows, the last part of the course focuses on Caesar's Dē Bellō Gallicō.

Latin IV—1 credit; year course

Open to: 11, 12
Prerequisites: Latin III or equivalent and departmental approval

In Latin IV, students read authentic Latin texts and analyze them in historical and political context. Since students have a good grasp on Latin grammar and vocabulary at this point, most of the course is about using Latin to study ancient history. Students will read at least one text of poetry and one of prose. The class analyzes the writing style of each author, comparing rhetoric, literary devices, and tone. Students learn how to scan poetry in dactylic hexameter. Students study the context of each work in detail, aiming to understand why it resonated with the Roman reader in that historical or political moment.

Students write essays (in English) about how the reading connects to Roman history. The amount of material in this course demands an intensive full-year commitment to work at an accelerated level. Authors include Virgil, Ovid, Cicero, Caesar, Pliny the Younger, and Petronius, depending on the teacher's area of interest and expertise.

Advanced Latin Literature—1 credit; year course

Open to: 11, 12
Prerequisites: Latin IV or equivalent and departmental approval

Students improve their skills in reading and analyzing Latin prose and poetry. The course mixes extensive and intensive reading, giving roughly equal priority to reading texts as literature and to closer exegetical reading. Texts are chosen from classical and postclassical authors, reflecting the role of the Latin language and Latin literature in connecting a vast multicultural and polyglot world across the Mediterranean basin and across time. In any given year the class may read lyric and elegiac poetry, didactic poetry, epic, prose fiction, history, letters, philosophy, or other genres, from one or several authors.

Spanish

Sidwell Friends' Spanish curriculum offers a sequence of courses that use the language as a tool for exploring culture, history, and literature. Given the importance of the Spanish language in the United States and in the world, the interdisciplinary program begins in prekindergarten and continues through the advanced levels in the Upper School.

The Upper School program follows an immersion approach, stressing the development of natural speech pattern, pronunciation, and intonation at all levels. All materials promote the development of communicative skills in understanding, speaking, writing, and reading Spanish, as well as various cultural topics. In this environment, teachers and students communicate in Spanish, avoiding any form of translation into English.

Spanish I—1 credit; year course

Open to: 9, 10, 11, 12
Prerequisites: none

This is a beginning course for students who have not studied Spanish before, and/or haven't been in an immersion setting. This course presents the fundamentals of elementary Spanish through daily dialogues, thematic vocabulary, grammar, and cultural lessons. Lessons focus on both aural comprehension and oral production, emphasizing effective learning habits for language acquisition (such as speech replication, verb and vocabulary drills, note-taking, listening, responding, and even singing) to cement foundational precision in reading, writing, and speaking.

Spanish II—1 credit; year course

Open to: 9, 10, 11, 12
Prerequisites: 7th and 8th Grade Spanish, Spanish I, or equivalent
The Upper School and Middle School Modern and Classical Languages Department will determine placements.

This course is designed for students who have attained a certain level of familiarity with the language that enables them to engage more comfortably in an immersion setting, where the primary emphasis is building and developing conversational skills. Students who complete the course should be able to hold basic conversations, ask questions, and decrease their dependence on English thought and speech patterns.

Spanish III—1 credit; year course

Open to: 9, 10, 11, 12
Prerequisite: Spanish II or equivalent
The Upper School and Middle School Modern and Classical Languages Department will determine placements.

This course is designed to further refine students' listening, speaking, writing, and study skills in a communicative classroom. Students master and expand on foundational skills by focusing on more detailed accuracy in their language acquisition, as well as by decreasing their dependence on English thought and speech patterns.

Spanish IV—1 credit; year course

Open to: 9, 10, 11, 12
Prerequisite: Spanish III or equivalent
The Upper School and Middle School Modern and Classical Languages Department will determine placements.

This course is offered to students who have mastered their foundational skills (in speaking, reading, and writing) and who are ready to deepen their grammatical understanding. In addition, a series of cultural and literary units provide a context for expanding their vocabulary and refining their linguistic skills.

Spanish V—1 credit; year course

Open to: 10, 11, 12
Prerequisites: Spanish IV

This course focuses on fostering natural self-confidence in expression, enhancing clarity in writing, and advancing reading comprehension, all while expanding students' understanding of Spanish-speaking cultures. Students learn major grammatical concepts and complex structures while building a more sophisticated and specialized vocabulary. Students will also begin to prioritize spontaneous speaking (without prior preparation).

Spanish VI—1 credit; year course

Open to: 11, 12
Prerequisites: Spanish V

This course is dedicated to refining the mechanics of the language (particularly gender and noun agreement), in both speaking and writing. Throughout the year, students will be working to create more complex grammatical structures that will enable them to express

themselves in an increasingly sophisticated manner. There is also a stronger focus on speaking on the fly (without prior preparation), with assignments and assessments designed to help students build on their foundations and aural skills.

Advanced Spanish Seminars—1 credit; year course

Open to: 11, 12
Prerequisites: Spanish VI or departmental approval upon completing Spanish V

The Advanced Spanish Seminar is a discussion-based course that explores a variety of topics, such as cultural identity, literature, religion, film, human rights, linguistics, philosophy, or history. Students must demonstrate a sophisticated command of grammar in both conversational settings and analytical writing, where the primary focus is learning in Spanish versus continuing to learn the language itself.

School Year Abroad

Sidwell Friends School is a member of School Year Abroad (SYA), a program that allows juniors and seniors to spend a year in France, Italy, or Spain. While SYA offers semester options, only the yearlong program is approved by Sidwell.

At School Year Abroad, students pursue a full academic course of study in the framework of a foreign culture. Students take classes at School Year Abroad facilities in Rennes, France; Viterbo, Italy; and Zaragoza, Spain. Students live with host families supervised by the School. Outside of School, students participate in athletic, cultural, and recreational activities with their host-country counterparts, and many students take advantage of opportunities for travel both with the School and independently with parental permission. Because of the significant independence that SYA students enjoy, prospective applicants and their parents should be aware of the additional self-discipline and good judgment required of students participating in this program. Furthermore, Sidwell Friends School supports any disciplinary and academic sanctions by School Year Abroad.

In Spain and France, only English and math courses are taught in English. In Italy, students receive intensive instruction in Italian, but the other courses are taught in English. Therefore, the program in Italy can accept students with no previous experience in Italian, while the programs in Spain and France require a minimum of two years of study in Spanish and French, respectively.

Students should begin to consider School Year Abroad during freshman year, because participation requires relevant curricular choices—especially in math, lab sciences, and history. At a minimum, interested students and parents should speak to the SYA coordinator

and attend SYA orientations during the fall of sophomore year, as applications are due in January. Then, students must undergo a selection process that considers personal, academic, and linguistic qualifications as well as the appropriateness of School Year Abroad to a student's course of study. School Year Abroad makes admissions and financial aid decisions with input from Sidwell Friends School.

Significant need-based financial aid is available from School Year Abroad to cover the difference between Sidwell Friends tuition and that of School Year Abroad. Sidwell Friends School limits the number of students granted a leave of absence to participate in School Year Abroad to 12 per year. Further information may be found at www.sya.org.

Science

For the class of 2026, science is a required course in grades 9 and 10 and is optional in grades 11 and 12. For the class of 2027 and beyond, students are required to take 9th grade Physics, 10th grade Chemistry, and 11th grade Biology.

Students entering 9th grade should consult with their current science teachers or the Science Department chair about the two options for physics: 9th-grade Physics I or 9th-grade Physics I Accelerated (IA). A pre-assessment will also be given to interested 8th-grade students in March for them to receive preliminary feedback on their preparedness for the accelerated class. Both are survey courses, with Physics IA moving at a faster pace, involving more challenging mathematics, and going deeper into topics. Students electing to take Physics IA should demonstrate enhanced academic stewardship and strong quantitative reasoning and problem solving skills.

For grades 10 through 12, the Science Department provides students with a list of course options in February, before course sign-ups, based on science-faculty discussions about the most appropriate courses for each student. Faculty approve courses for students based on the level of difficulty of a course, the prior knowledge deemed necessary to take full advantage of the course, and a candid assessment of the quality of the student's work—especially the demonstrated ability to keep up with coursework and the student's level of maturity, independence, and responsibility. The science faculty may consult with a student's advisor and the Assistant Principal for Academic Affairs during this process. A student who believes that there are extenuating circumstances that should be considered for entry into other courses may seek Science Department consideration and should contact the Science Department head.

Any student who wishes to take two or more science courses concurrently may do so if space is available and if the student receives department approval for the second course. The department faculty, as a group, grants approval to "double in science" using the guidelines described above.

NOTE: *Beginning with the class of 2027, students entering into 9th grade will take a sequence of physics in 9th grade, chemistry in 10th grade, and biology in 11th grade. For the 2023-2024, 2024-2025, and 2025-2026 school years the Science Department will be offering two separate sets of physics courses: one for 9th graders (taught at a 9th-grade level) and one for 11th and 12th graders (taught at an 11th and 12th-grade level).*

Physics I: 9th Grade—1 credit; year course

Physics I uses a guided inquiry-based approach to obtain a grounding in introductory physics topics including kinematics, force analysis, conservation laws, and electrostatics. Students will construct and use scientific models to describe, explain, predict, and control physical phenomena. They will be expected to formulate questions and document observations in a variety of ways. Data interpretation and exploration of mathematical relationships will inform the development of a specific model, which is then deployed, tested and refined. Students will regularly collaborate in laboratory investigations and problem-solving tasks. Additionally, they will engage in scientific discourse where they will be expected to support claims with evidence obtained during the development of their model.

This course serves as the foundation of the science curriculum.

Physics I Accelerated: 9th grade—1 credit; year course

Physics IA uses a guided inquiry-based approach to obtain a grounding in introductory physics topics including kinematics, force analysis, conservation laws, and electrostatics. Each unit in the accelerated course will typically feature sub-topics not covered in the standard course, eg: an exploration of the conical pendulum in the unit on Central Forces. Additionally, many topics will employ 2-dimensional vectors for deeper analysis. Students will construct and use scientific models to describe, explain, predict, and control physical phenomena. They will be expected to formulate questions and document observations in a variety of ways. Data interpretation and exploration of mathematical relationships will inform the development of a specific model, which is then deployed, tested and refined. Students will regularly collaborate in laboratory investigations and problem-solving tasks. Additionally, they will engage in scientific discourse where they will be expected to support claims with evidence obtained during the development of their model.

This course serves as the foundation of the science curriculum. Mastery of mathematical analysis at the algebra 1 level is expected. Furthermore, this course will provide and utilize more mathematically rigorous techniques, including some from geometry and trigonometry.

Chemistry I—1 credit; year course

Open to: 10
Prerequisites: none

Chemistry I is a comprehensive course in which students work with the concepts of atomic structure; stoichiometry; thermochemistry; physical behavior of gases, liquids, and solids; basic chemical bonding; and solutions. The course emphasizes building a cohesive and accurate foundational understanding of matter and energy such that students can reason independently, explain observations, and make predictions. Measurement, problem-solving, and the practical application of chemical ideas in the lab and in the real world are also important emphases. This course provides students with a solid introduction to chemistry, its vocabulary, and its application to natural events.

Chemistry I Accelerated—1 credit; year course

Open to: 10
Prerequisites: none

Chemistry IA is an accelerated version of Chemistry I. Both are survey courses that introduce the topics of measurement, stoichiometry, aqueous reactions, gases, atomic and electronic structure, chemical bonding, thermochemistry, liquids and solids, and solutions. In Chemistry IA students also work with concepts such as equilibrium, reaction rates, and acids and bases. The course introduces topics with more sophisticated math and lab work and in greater depth than in Chemistry I. In turn, students should be very comfortable with algebra, as it is used almost daily in class. The course especially emphasizes collaborative learning through problem-solving. The course is designed for students who thrive in a student-centered environment focused on active learning, who enjoy working in groups, and who do not need a lot of reflection and practice to understand concepts.

Biology I—1 credit; year course

Open to: 11, 12 (for students who have participated in a Sidwell-approved junior year or semester away)
Prerequisites: none

Biology I is an introductory biology course that applies content introduced in physics and chemistry. Students begin the year constructing an understanding of the diversity of life on this planet and use this to inform a critical understanding of evolution. Evolution is a major throughline of the study of biology and of this course; gaining a deeper understanding of the

mechanisms of evolution will motivate the study of how living things reproduce and pass on traits (including genetics, cellular reproduction, DNA replication, transcription, and translation) and of how living things obtain and transfer energy (including ecology, cellular respiration, and photosynthesis). The course reinforces the skills students have learned in physics and chemistry, including constructing models to explain phenomena, defending their ideas with evidence, and revising their models as they obtain and evaluate new data.

Biology I Accelerated—1 credit; year course

Open to: 11, 12 (for students who have participated in a Sidwell-approved junior year or semester away)
Prerequisites: none

Biology 1A is an introductory biology course that applies content introduced in physics and chemistry. Biology 1A uses a similar structure to Biology 1, while exploring certain topics more in depth both quantitatively and with more complex applications. A stronger understanding of basic chemistry is assumed and comfort with quantitative problem solving is necessary. Students taking Biology 1A should be prepared to spend a substantial amount of time outside of class working on applications of content and will be expected to work collaboratively in a fast paced classroom environment.

Physics I—1 credit; year course

Open to: 12
Prerequisites: none

This introductory course uses an approach to the subject that puts an emphasis on both comprehension and computation. Using a conceptual approach to topics such as motion, energy, and momentum, students are often able to develop a gut feeling for the physical world that they will carry with them for the rest of their lives. Students are then able to use this conceptual understanding to develop and apply quantitative relationships between variables. Assessments emphasize scientific thinking, such as making observations, testing ideas, analyzing data sets, generating graphs, and using trends to make predictions, rather than recall of facts or definitions. Small group and class laboratory exercises as well as daily demonstrations complement collaborative problem-solving and are a catalyst for further inquiry. The course uses the computer as a tool for data gathering, analysis, and presentation as well as for the display of visual information.

Physics I—.5 credit; first-semester course

Open to: 12
Prerequisites: none

This first-semester Physics I course is open to seniors who wish to reduce their load after the first semester or who wish to enroll in a different second-semester course.

Physics I Accelerated—1 credit; year course

Open to: 12
Prerequisites: Math II, Precalculus, and/or concurrent enrollment in Calculus

Physics IA covers most major areas of introductory physics, including motion and mechanics, electrostatics and circuits, waves, optics, and magnetism. The course stresses the concepts that are necessary to go on to more sophisticated science courses (including conservation laws and graphical representations of data). The course covers most topics quantitatively. It's essential that students have a demonstrated mastery of algebraic and trigonometric topics and a high level of comfort with mathematical abstractions. The class includes laboratory activities and demonstrations where appropriate to give students direct experience dealing with force, energy, waves, etc. The course is designed for students who thrive in a student-centered environment focused on active learning, who enjoy working in groups, and who do not need a lot of reflection and practice to understand concepts.

Advanced Electives - Full Year Courses

Advanced Biology: Cell and Molecular Biology—1 credit; year course

Open to: 12
Prerequisites: Biology I or IA and Chemistry I or IA

Cell and Molecular Biology is an advanced science elective that provides an in-depth study of cell biology and a focus on building essential scientific skills. The course builds off of the foundational understandings of cell structure and function and molecular structure and interaction built in the introductory Biology and Chemistry courses and aims to provide students with the conceptual framework, factual knowledge, and advanced analytical skills necessary to deal critically with the rapidly-changing science of cell biology. Topics covered include genetics and evolution, protein structure and synthesis, gene expression and its regulation, cell cycle regulation, and specialized cell structure and function. The course will also introduce systems biology, genomics, and bioinformatics. Throughout the year, students will build their skills with reading primary literature, analyzing complex data,

designing and carrying out investigations, and computational modeling as they apply course content to different phenomena. This course is designed for students who are self-motivated, independent learners with a strong interest in biology and biological research. This course is only available in the 12th grade as an advanced elective course after having taken an introductory biology course and introductory chemistry course.

Advanced Chemistry: Introduction to Organic and Bioorganic Chemistry—1 credit; year course

Open to: 11, 12
Prerequisite: Chemistry I or Chemistry IA
Corequisite: Biology I or Biology IA

Introduction to Organic and Bioorganic Chemistry is an advanced science elective that introduces students to the unique chemistry of carbon-containing molecules. Carbon is a special atom because it is exceedingly average. Its middling size and electronegativity make it an infinitely tunable atom capable of undergoing thousands of distinct reactions. Because of its versatility, carbon forms the core of the most complex molecules known and is the basic element of life. In this course, which includes a laboratory component, students will explore standard topics in the field of organic chemistry, including the structure and nomenclature of organic molecules, reaction mechanisms, and synthesis, with an emphasis on conceptual understanding over memorization of reactions. A class in organic chemistry is a distinct experience from one in general chemistry. It has its own vocabulary and leans heavily on spatial reasoning. Students will have the opportunity to draw upon their prior knowledge in chemistry as they look at molecules and reactions from an entirely new perspective. They will also apply their newly learned concepts in organic chemistry to understanding the mechanistic details of enzymatic reactions and metabolic pathways that they previously encountered in biology class.

Physics II—1 credit; year course

Open to: 11, 12
Prerequisite: Physics IA (11th grade course only)
Corequisite: Math IV or Calc II

Physics II is a calculus-based advanced physics course that builds on most of the topics introduced in Physics IA and also includes many topics that were not covered in Physics IA, including rotation and momentum in the first semester, and electric potential, capacitance, and inductance in the second. The level of mathematics assumes the student has taken or is currently enrolled in Calculus II or Math IV. Laboratory work also builds on Physics IA labs but becomes more student-driven with respect to procedure and analysis. As the year

progresses, the course presents more applications that require differential and integral calculus, in keeping with the students' progress in math. This course is designed for students who are motivated to learn, genuinely interested in the topics, resilient, able to self-assess their learning, and use learning support if needed.

Advanced Environmental Science: Earth Systems & Climate Change—1 credit; year course

Open to: 11, 12
Prerequisites: Chemistry I or Chemistry IA
Corequisite: Biology I or Biology IA

Earth Systems & Climate Change is an advanced interdisciplinary environmental science course. A strong understanding of physics, chemistry, and some biology topics are required for this course. Students will investigate earth systems including the geosphere, atmosphere, and hydrosphere, as well as ways that humans have impacted these systems. The second main focus of this course is on climate - the way climate works, how climate has changed over time, how humans are impacting climate over the last several decades, and the impact of these changes on environmental systems. Interpreting data, reading scientific literature, conducting inquiry-based laboratory experiments, and field work will be major tools in developing a strong understanding of this global environmental problem. Students will also be charged with evaluating current strategies for adapting to, mitigating, and preventing climate change.

Electives - Semester-Long Courses

Molecular Techniques—0.5 credit; fall or spring semester course

Open to: 11, 12
Prerequisites: Biology I or Biology IA

Molecular Techniques provides the opportunity for students to conduct scientific investigations while mastering concepts from molecular biology. This course allows students to understand and employ the latest novel research and clinical applications from peer-reviewed journals. The faculty offers an integrated approach, spanning the use of molecular genetics and functional genomics along with molecular, biochemical, cell biological, and anatomical methods. Techniques include computational and DNA-sequence analysis, as well as molecular biology tools, including GFP transgenics and selective gene inactivation. Students must have a strong understanding of biology and chemistry. This course promotes critical thinking, problem-solving, and data analysis via statistical methods.

Students actively engage in designing and refining protocols for their research and in collaborating to complete their projects.

Astrophysics—0.5 credit; fall or spring semester course

Open to: 11, 12
Prerequisites: none

Astrophysics is a scientific exploration of humanity's place in the universe. Topics range from the traditional to the exotic, including the structure of the universe, the evolution of stars, the Big Bang, black holes, and the search for extraterrestrial life. The course emphasizes the tools (mathematical, scientific, and technological) scientists have used to develop their current understanding of the universe and those that are helping scientists make strides toward an even deeper understanding. Those without a background in physics learn the fundamentals, and those with previous physics experience have various opportunities (particularly in research projects) to use and expand their knowledge. Students should be comfortable with algebra and geometry.

Forensic Science—0.5 credit; fall or spring semester course

Open to: 11, 12
Prerequisites: Biology I or Biology IA

Forensic science is an interdisciplinary exploration of topics in criminalistics, including DNA fingerprinting, controlled substance analysis, and hair and fiber analysis. Students will employ techniques such as chromatography, electrophoresis, and microscopy. Students will also discuss research, examine cases and/or scenarios, collect and analyze data, and investigate mock crime scenes (physical and simulation-based). This course helps students make connections among scientific disciplines and develop their argumentation, evidence-based reasoning, lab technique, and critical-thinking skills. Students who enjoy hands-on learning and who are collaborative, curious, creative, self-directed, and analytical benefit the most from this course. This is a one-semester course.

Ecology and Conservation—0.5 credit; fall or spring semester course

Open to: 12
Prerequisites: none

This interdisciplinary environmental science course focuses on topics related to ecology and conservation. Ecology includes the study of how organisms relate to each other and their environments; conservation ecology is the branch of science concerned with preservation and management of biodiversity and natural resources. Topics covered will include ecosystems, evolution of biodiversity, population and community ecology, causes of

extinction, and conservation of biodiversity. Many examples of anthropogenic disturbance can be seen locally, so field trips or connections to local work will be included in this course. Students will engage in field studies, examine data from existing research, and engage with primary scientific literature. Students will be introduced to important scientific content, reinforce the importance of that content in the world around them, and provide launching points for discussion about solutions and repercussions of various problems in conservation.