St. Paul's School for Boys

UPPER SCHOOL CURRICULUM GUIDE

2024-25

THE MISSION OF ST. PAUL'S

Seek Truth, Knowledge, and Excellence. Live by Faith, Compassion, and Integrity.

STATEMENT OF PURPOSE

The student who graduates from St. Paul's is a critical thinker who is also inquisitive, creative, and open-minded. He takes initiative and he takes responsibility in scholarship and in sport, but more importantly he takes initiative in spirit; he lives a life of balance that is always counterweighed by principles and integrity.

SUMMARY OF GRADUATION REQUIREMENTS

The Arts: 1 credit, two semesters or one full-year course, completed during freshman year

English: 4 credits and successful completion of the Capstone Project Research Paper, and the Senior Speech

Math: 4 credits of mathematics, including Geometry and Algebra 2

History and Social Sciences: 3 credits of history/social science, including Modern World and United States History

Science: 3 credits of science, including at a minimum a semester of Environmental Science 1 (1/2 credit), semester of Biology 1 (1/2 credit), semester of Chemistry 1 (1/2 credit), and semester of Physics 1 (1/2 credit)

World Languages and Cultures: Three (3) consecutive years of the same language beginning in grade 9. The third year may be waived by the Asst. Upper School Head upon review of formal Educational Evaluation by the Director of Learning Services. In this instance, families are required to meet with the Director of College Counseling to better understand the impact on the college application process.

Religious Studies: 1 credit, including World Religions in Grade 10 and at least one semester-long elective offering, taken in Grade 12

Health, Wellness, and Research Skills: All 9th grade students are required to take a Health & Wellness class led by the school's counsellor, and a Research Skills class led by the school's librarian.

THE ARTS

The Arts program in the Upper School is a vital, integral part of our curriculum. The development of basic skills in the arts can be used during one's life as a means of communication, expression, and enjoyment. A student's program in the arts should include opportunities to develop and express ideas, as well as recognize and understand the artistic achievements of past and present civilizations. Study in the arts can also assist the student in their cognitive development by integration of art and other subjects. This approach enables students to more fully understand the world they inhabit and helps them contribute to society in a personally satisfying manner.

Graduation Requirement: *All students are required to take 1 credit (equivalent of two semesters) of the Arts in order to graduate from St. Paul's. All Arts classes are offered in coordination with St. Paul's School for Girls; Dance, Music, Theatre, and Visual Arts classes are coeducational, and some Choral Music concerts are coordinated with St. Paul's School for Girls.*

MUSIC

Choral Music

Singers

A male-voice ensemble, Ninth Grade Singers seeks to provide a solid foundation to the upper school choral curriculum through daily performance and exploration of choral repertoire. Like subsequent offerings, this ensemble's goal is musical artistry with areas of emphasis to include: understanding posture and anatomy as applied to singing, developing breath support, building resonance throughout the two primary male registers, diction (with an introduction to Latin, German, French and other texts), vowel placement, sight-singing and ear-training, applying basic music theory & basic music history. Throughout this course, intermediate-level, meritorious, male-voice choral repertoire acts as the best curriculum and most direct path to proficiency of skills.

Saint Paul's Concert Chorale

Enrollment in the St. Paul's Concert Chorale is open to qualified singers in Grades 10, 11, and 12 by permission of the instructor. Members of the SPCC exhibit an advanced understanding of the choral arts prior to their acceptance. Though the curriculum is similar to that of the St. Paul's Singers, this ensemble rehearses and performs more difficult music with tremendous commitment to intonation, vowel modification, resonance building, advanced concepts of vocal placement, and continued strides in music literacy. This premiere ensemble is also the touring choir at St. Paul's School. Boys in this choir have performed in Iceland, Germany, Austria, Czech Republic, and Ireland, to name a few. Acceptance of a position in this ensemble requires singers to participate in all public performances, recording projects and tours (both national and international).

Route 81 / Chamber Choir

This group of 9 to 14 talented singers rehearses and performs music spanning from the Italian Renaissance to the Beatles and beyond. They rehearse under the direction of Mr. Rifkin on Sunday evenings from 7:00-9:00 p.m. in the chapel. Their varied repertoire is performed both on and off campus. Whether singing chamber music for a choral concert or light-hearted arrangements at campus parties,

this ensemble exhibits a particular dedication to the choral arts. Inquiries for Route 81 performances should be made to student leaders via emailing Mr. Rifkin.

Digital Music

Digital Music: Technology and Production

Digital Music is an introductory course that introduces students to the skills needed for a vast range of professional careers in the music world. Students will explore digital and analog technologies to produce their own music and the music of other artists. This program delves into composition, music theory, recording, and performances with soloists and ensembles. The class will learn the core principles of Digital Audio Workstation (DAW) use and identify best practices in creating and editing digital music. The learning outcomes for this class will develop critical listening skills and a high-level application of recording, mixing, mastering, and musical-instrument software tools. The course will culminate in a demonstration of skills in recording acoustic and digital sound sources for real world-based needs.

Instrumental Music

Jazz Band 1-2

This year-long course engages students in the evolving genres of instrumental jazz and vocal music. The Jazz Band provides the opportunity to learn, record and perform Swing, Latin, Bossa Nova, Ballads and Rock. Students are introduced to concepts in jazz improvisation and will gain fundamental knowledge of chord and scale relationships. Major focus is placed on learning and communicating the "language" of Jazz, as well as understanding rhythmic and melodic phrasing. This class develops musical independence by introducing the arrangement of standards and modern material. Our band members develop the skills necessary for live performance, as well as studio recording. We perform at seasonal concerts, festivals and community events. Students who have prior experience in brass, winds, guitar, bass, strings, drums/percussion, and keyboards, as well as other instruments and/or as solo vocalists may enroll, with the permission of the instructor. This course may be repeated for credit.

Jazz Band 3-4

This year-long course builds upon the skills and concepts introduced in Jazz Band 1-2, with an emphasis on creating student arrangements, advanced improvisation, recording, music production, sightreading, and music theory. Jazz Band 3-4 maintains an active and highly visible performance schedule at our schools as well as in prominent local and regional venues. The students delve into arranging standards for various instrumentations, and situations. They also examine how some mainstream artists have crossed over into Jazz and add them to our repertoire. The course is open by permission of the instructor to instrumentalists and vocalists with demonstrated proficiency in their instruments and/or voice and may be repeated for credit.

THEATER

Technical Theatre 1: Introduction to Technical Theatre Production

This course is a practical overview of all aspects that go into getting a production ready for the stage. Students are introduced to lights, sound, woodworking, scenic painting, prop design, and costume construction as they work hands-on to prepare materials for The St. Paul's Schools' productions. Students start the course by learning shop safety and how to use tools and theatre technology properly. They also study the various technical careers in Theatre including Set Design and Construction, Master Electrician, Sound Designer, Stage manager, Costume Design and Wardrobe, Props Master, and Deck Hand and learn from guest artists from professional theatre companies. They work as their own production company, led by our Technical Director, to create sets, costumes, lights, sound and props. The semester culminates in a rotation executing all roles in preparation for Technical Theatre 2.

Technical Theatre 2: Theatre Design and Management

This semester course teaches students the skills necessary to create a design based on a theatre text and perform the management positions that help a production to run. It introduces the basic skills necessary for creating designs such as text analysis, rendering, model building, and artistic collaboration while also giving practical experience in Stage Management and being a Deck Hand.
Students begin by learning the elements of design and then apply them to theatre and dance productions as they use their imagination and talents to bring stories to life. As a final project, students collaborate on design teams to create a unified design for a play. Prerequisite: Introduction to Technical Theater; or 9th grade English and Visual Art or Graphic Design.

Technical Theatre 3: Theatre Design, Lighting and Sound

This semester course is designed to fully immerse students in the world of electrics within the theatre industry. It introduces the responsibilities of various job positions from Interns to Designers to Programmers, and how all those positions collaborate with not only each other, but other members of the production team. This course delves into conceptual design work, programming & editing techniques, live sound mixing, and system integration of lighting. The curriculum focuses on both the practical implementation of electrics and the theoretical impact these elements can have on others.
Students start the course by engaging with assignments designed to get them in tune with the lights and sounds happening around us in our world every day. Throughout the semester, students build on their skills by designing and creating their own pieces of work based in the pillars of function, expression, and impression. This class culminates with students collaborating on design teams to create a unified design for an instructor-approved play. Prerequisite: Introduction to Technical Theater or Visual Art, or Graphic Design.

Technical Theatre 4: Theatre Production

This semester course is for a student who is passionate about stage design and is interested in considering a career in production. Students choose a design role and create an original design plan for a Ward Center production in a culminating academic and artistic project. Students learn to collaborate artistically with directors and other designers, project manager, and work under a budget to bring their artistic vision to life. This class can be taken multiple times for credit, with the approval of the instructors. Prerequisite: Technical Theatre 2 or Technical Theatre 3.

Acting 1
The goal of Acting 1 is for students to be able to discover their potential as a performer and gain confidence on stage through theatre games, exercises, monologues, and scene work. This is a studio style performance class, and active participation is an important part of that. It is a class for someone who will learn by doing, someone who is willing to engage fully in the exercises and someone who is willing to put in time outside of class to work on material. Previous theatre study is not required.

Acting 2/3
This one-semester course focuses on developing the fundamental skills used in rehearsing and performing scenes from classical and contemporary plays. Through an exploration of various acting techniques, students acquire the tools and skills necessary for honest characterization. Students explore acting through the perspective of Stanislavski, Uta Hagen, Stanford Meisner and Anne Bogart. Acting 2/3 culminates in a showcase of scenes prepared and rehearsed throughout the course. This course may be repeated.

Musical Theatre Performance 1/2
This course explores the craft of musical theater through scene exploration, vocal technique and acting exercises. Students learn and rehearse “scene into song” from the diverse musical theater repertory, enabling the students to develop versatility and a sense of style. This course places emphasis on developing honesty, ease, and expressiveness in musical theater performance. Students are also introduced to musical theater audition techniques and basic musical theatre dance. The course culminates with an evening showcase performance of scene and songs. This course may be repeated.

Advanced Acting
Intended for advanced acting students, this course focuses on in-depth exploration of a variety of theatre traditions and acting theories. Students explore a range of plays and playwrights to understand trends and style. The ultimate goal of the course is two-fold: 1) learning about world theatre traditions and performance styles, and 2) examining and practicing the techniques of various acting theorists and their approaches. The course culminates with a showcase of scene work and independently created solo theatre pieces.

Directing
Student directors learn the craft of directing through script analysis, concept development, actor-director communication, staging & composition, auditioning and rehearsal planning & execution. Though the focus lies primarily in the role of the director, students also explore the viewpoint and process of the actor, designer, and dramaturge. The second half of the course allows students the opportunity to test their directing skills both theoretically and practically. Students work to create a Director’s Notebook, for which they choose a published play text they have not previously studied and develop ideas regarding how it could be staged for an audience. The course culminates in a Director’s Showcase with a presentation of scenes directed by the students in the class.

Ensemble Theatre
Ensemble Theatre is a practical, on-your-feet introduction to collaborative and devised theatre-making. Though particular roles may be assigned – writers, directors, actors, designers – the creation of the piece, whether wholly original or adapted, happens with the artists working together in the rehearsal room, informing each other’s processes. Students are exposed to a variety of processes in ensemble-theatre-

making, including adaptation, group writing, found text, Viewpoints and Composition, improvisation, as well as methods of offering critical feedback on works-in-progress. Students are encouraged to use source material of great personal interest to them. Collaboration, communication skills, imagination, and risk-taking are the foundations for this rigorous coursework. This work culminates in the generation, rehearsal, and performance of an original piece of devised theatre.

Theatre Production

This class is centered around producing a full-length play from page to stage, which serves as the mainstage Upper School production for the spring. Having selected the play for production, students engage in an in-depth exploration of the play production process, from initial readings and play analysis through design and production. All elements of production are explored, as students take on roles as actors, directors, dramaturges and designers. While this course may require rehearsals outside of class time, students involved in athletics or other after school activities are highly encouraged to enroll.

IB Theatre (Two-Year Course):

Theatre is a dynamic, collaborative and live art form. It is a practical subject that encourages discovery through experimentation, the taking of risks and the presentation of ideas to others. It results in the development of both theatre and life skills; the building of confidence, creativity and working collaboratively. The IB Diploma Program Theatre course is a multifaceted theatre-making course of study. It gives students the opportunity to make theatre as creators, designers, directors and performers. It emphasizes the importance of working both individually and collaboratively as part of an ensemble. It offers the opportunity to engage actively in the creative process, transforming ideas into action as inquisitive and productive artists.

Students experience the course from contrasting artistic perspectives. They learn to apply research and theory to inform and to contextualize their work. The theatre course encourages students to appreciate that through the processes of researching, creating, preparing, presenting and critically reflecting on theatre as participants and audience members they gain a richer understanding of themselves, their community and the world. Through the study of theatre, students become aware of their own personal and cultural perspectives, developing an appreciation of the diversity of theatre practices, their processes, and their modes of presentation. It enables students to discover and engage with different forms of theatre across time, place and culture and promotes international-mindedness.

VISUAL AND DIGITAL ARTS

Visual Art 1

This one semester course is for the student who has a casual interest in art or are art-lovers looking forward to building a portfolio throughout their upper school years, this introductory class is the place to start. Students work on building skills and confidence in the art-making process through exploration of artwork from diverse cultures around the world using a variety of materials, techniques and experiences. Student choice is encouraged in each assignment to make connections with artists and artwork from different time periods and regions.

Visual Art 2

This one-semester introductory painting and drawing course develops art concepts and problem-solving skills in drawing from observation. Students begin to explore colors in light and shadow with a variety of materials, including drawing media and oil paints. Students are encouraged to explore self-expression through mixed media work and collage and to connect with artists and styles to inform their own work. Although most students in the class will have taken Visual Art 1, Visual Art 1 is not a prerequisite for sophomores, juniors, or seniors who would like to begin taking Visual Art.

Visual Art 3

Students in this one-semester class continue to develop their skills in painting and drawing from observation of the color created in light and shadow and as found in portraits, figures, and landscapes. They also enhance their creative problem solving with more open-ended themes that challenge each person to find their own solutions. Students develop, enhance, broaden, and deepen their portfolio in preparation for more advanced courses.

Visual Art 4

In Visual Art 4, a one-semester course, students develop an advanced portfolio in preparation for AP Studio Art. Assignments are increasingly self-directed as the semester progresses, and students begin working with a series of related artworks in preparation for AP Studio Art.

AP Studio Art

The AP Studio Art class is a full-year course that provides the committed art student the opportunity to create a body of work reflecting a consistent theme and style for submission to the Advanced Placement program.

The course has a rigorous schedule of assignments allowing the students to develop an extensive portfolio over the course of the year while improving their skills. Many students also submit a college portfolio. Students showcase their art in our community and are expected to show their work in our various school art shows. Many colleges offer credit for high scoring AP portfolios; speak with your college counselor for details.

Please note, students in an AP class must sit for the AP exam in order to receive AP designation and credit on their transcript. A passing AP score is a 3 or higher.

Digital Art 1: Foundations of Digital Art

This one-semester course is offered both fall and spring semesters to all Upper School students. As an introductory digital art class, students will learn elements of art, design thinking, problem-solving skills, graphic design, photography, and video. Students will utilize Adobe Photoshop, Lightroom, Illustrator and iMovie in this course. Additionally, this course offers opportunities for project management and collaboration, exploration of influential artists, and design trends we see in the world today.

Digital Art 2: Intermediate Digital Art Programs and Concepts

In this one-semester course, students will build on their prior knowledge of the Adobe Creative Suite with a focus on using Digital Art programs to create narratives and tell stories. The class will cover a range of topics including animation, experimental photo editing, on-location photo/video shooting, video effects, and artist bookmaking. Students will use programs such as Adobe Photoshop, Animate, Premiere, After Effects, and InDesign. Additionally, this course offers opportunities for increased freedom and student-

centered learning, with a goal of having each student bring their own passions into the classroom to begin discovering their own unique artistic voice. Prerequisite: Pre-requisite DA1 or a portfolio submission.

Digital Art 3: Advanced Digital Art Concepts and Program Mastery

This one-semester course focuses on developing mastery of digital art programs, with a strong emphasis on artistic concepts and theory. Students will explore topics essential to today's digital artists, ranging from cutting-edge technology such as Virtual Reality and 3D workspaces, issues of copyright and fair use, NFTs and selling artwork, and documentary ethics. Students will also enjoy a great freedom of choice in exploring topics of interest to them, using their artistic voice to shape a cohesive portfolio that demonstrates both program mastery and conceptual thought. By the end of the course, students will be encouraged to select a program of their choosing to focus on and explore in an in-depth preparation for their capstone course. Prerequisite: DA2 or a portfolio submission.

Digital Art 4: Capstone

The Digital Art Capstone course allows for students to select an area or program of interest, spending a semester engaged in the development of a significant project. Students will lead the development of their own project and ideas, using the teacher and classmates as resources in their journey. Capstone project examples could range from creating an extended film or animation, designing a brand, making an artist book, or working in series. This project will culminate in a public project presentation, and students will leave the course with an artist website and portfolio intended to be submitted to prospective colleges or art show opportunities. Prerequisite: DA 3

*This course may be repeated for credit with instructor's permission.

DANCE

Dance 1-2

Dance 1-2 is an introductory one semester dance course in which students study modern and contemporary dance at the beginner level utilizing concepts from ballet and jazz techniques. This class is designed to prepare students for Upper School level dance classes. The students' understanding of the performing art will culminate in a required performance on stage in the Ward Center.

Dance for the Athlete

This one semester course is designed specifically for the athlete to enhance and refine athletic performance through techniques and training that is traditional to dance. No dance experience is required. Students enrolled in this course gain an increase in body awareness, flexibility, agility and balance, while also gaining an appreciation for the art of dance. Students are required to participate in the dance concert.

Dance 3-4

Dance 3-4 is a one semester course that will continue the study of ballet, jazz, modern and contemporary dance from Dance 1 at an intermediate level. Prior dance knowledge is preferred. This class focuses heavily on anatomy and musicality, strength building, and performance quality. This course culminates in a required performance on stage in the Ward Center.

Dance 5-6

Dance 5-6 is a one semester course that is an intermediate/advanced study of ballet, jazz, modern and contemporary dance techniques. Prior dance knowledge is preferred as this class moves at a quicker pace and uses an understanding of the body to explore improvisational techniques. Students study current dance choreographers and styles on a global level. This course culminates in a required performance on stage in the Ward Center.

Inertia Dance Company *(Recommended: 4 years of serious dance study/training)*

Inertia represents the most dedicated dancers at St. Paul's Schools. Inertia provides dancers opportunities to fully immerse themselves in the performance components of the art by providing dancers with additional performance opportunities outside of the traditional SP/SPSG dance class, especially during the Winter and Spring Dance Concerts. Students have the unique experience of fully producing a student choreography showcase in the Spring on our main stage. In addition to the stage performances, Inertia students alongside our visual arts students create a dance on film site specific work. Past venues have included the Maryland Historical Society and Ladew Topiary Gardens. The company performs new and classical repertoire, in addition to working with guest artists in residence. Past guest artists have joined us from the Radio City Rockettes, Alvin Ailey, New York City Ballet, Complexions Contemporary Ballet, *A Chorus Line* National Tour, *Hairspray Live! Mean Girls* on Broadway, and the Isadora Duncan Company. Dancers also have opportunities to attend outside dance workshops, festivals and performances such as The Independent Dance Network Festival, The Maryland Dance Alliance Festival, and AIMS national conference.

ENGLISH

Graduation Requirement: *All students must take four (4) full years of English.*

English 9

This course emphasizes writing as an act of thinking. Learning good habits of close reading, students enhance their written expression with logical and critical thinking. Students and teachers supplement core texts—taught across the grade by all teachers—with materials appropriate to individual classrooms, students, and contemporary situations. Students use the readings: (1) to help distinguish fact from inference and details from conclusions; (2) to inspire insightful responses that are products of original and creative thought; and (3) to prompt writing by providing distinct models of varying type and draw connections in their writing and their reading with the 9th grade History courses.

English 10

This course underscores basic competency in reading and writing by providing intensive training in literary fundamentals and expository writing. Student texts come primarily from the American literary tradition—familiar ground that allows the boys to hone and polish their skills. By studying a range of literary works and techniques within that tradition, students further develop their analytical and interpretive skills. By emulating such works and techniques, students further develop their ability to express themselves. Students experiment with various stages of the writing process, and in doing so, internalize an individualized process. Students write in both creative and analytical form. Students experiment with various stages of the writing process, and in doing so, internalize an individualized process. Students write in both creative and analytical form.

The **IB English program** is a set of college preparatory courses taught over the Junior and Senior years at St. Paul's and while it is separated into IB English I and IB English II, the experience is thought of as one experience. IB English is a comprehensive exploration of literary works from diverse cultures and historical contexts. Throughout the two years, students study a variety of novels, plays, poems, and other literary forms. The coursework focuses on the roles of *Identity, Culture, Creativity, Communication, Perspective, Transformation,* and *Representation* as the core concepts addressed at both the IB English I and IB English II levels. Both courses focus on the act of reading closely and writing precisely in preparation for the work expected of students in tertiary education. Ultimately, the Junior and Senior year experience in the English Department strives to explore what we are capable of learning through literature, focusing on its role and purpose in understanding the human experience.

Texts are selected by instructors using our text selection policy to provide students with mirrors to examine their own experiences and windows to have a better understanding of the role of the other and, by extension, have a more complete understanding of the human experience.

Both courses prepare students for the breadth of IB Assessments and in preparation for the IB examinations offered at the end of the Senior year. More details about the assessments are listed below.

More specifically, **IB English I: From Classical to Contemporary** focuses on building on the reading and writing experiences of the 10th grade English coursework and focuses on developing specific reading,

annotation, and writing strategies with an emphasis on critical thinking. The course reads at least three works in translation (an IB requirement), which are centered on introducing students to the broader context of world literature. These texts vary from year to year, but the course strives to offer a range from *classical to contemporary* literature.

Students will complete several assessment types, notably focusing on preparation for the IB Individual Oral assessment, a 15-minute presentation given to the instructor. This assessment is recorded, graded by the instructor, and then sent along to IB as part of the suite of IB Assessments should a student choose to submit work to the IB. Additionally, students should expect to write several college level multi-draft essays, and numerous other types of writing—all in the service of developing the students' own voice and critical thinking.

IB English II: The Individual in Society builds on the experience of **IB English I** by following through on the reading and writing experience of the course. The course focuses primarily on the novel form, though works with the previous course to provide a balance of genre and voice to students. As such, the course has historically covered drama, poetry, as well as non-fiction. The primary course theme is the individual within society and works change from year to year though focus on the ways in which various authors communicate the experiences of their characters in the face of a broader society and context.

In the first semester, assessment focuses on, but is not limited to, college-level writing experiences, notably the production of at least one multi-draft essay of 1200-1500 words. Second-semester work focuses on preparation of the IB Paper 1 and Paper 2 assessment tasks (both timed writings in response to literature). Paper 1 asks students to write a commentary on an unseen passage whilst Paper 2 asks students to respond to one of several broad prompts with at least two of the works they have read in the course.
Both courses are offered at the Higher Level (HL) and Standard Level (SL) and both are considered advanced college preparatory work. Standard-level courses read 2 fewer works over the two-year cycle and do not submit as much work onto the IB for assessments. As such, the pacing of the courses is the chief distinguishing factor, with the expectation that the Higher Level course have demonstrated growing mastery over organization, work ethic, writing, and reading more challenging texts. Higher-level students are recommended by their 9th and 10th-grade instructors based on grades and aptitude in the classroom. Students at the HL level generally demonstrate mastery over the writing process, are consistent with their contributions to course discussions and activities, and show a genuine interest in the study of literature. Recommendations are made in the Spring of 10th grade. Students wishing to discuss their recommendations are required to speak with the 10th-grade teacher, advisor, and Department Chair before making any changes.

AP English Language Composition

The Advanced Placement (AP) English Language and Composition is the equivalent of an introductory college composition course and prepares students for the skills-based multiple choice and essay exam in May. Course curriculum and assessments emphasize both textual argument and the effectiveness of rhetorical strategies to construct these layers of meaning. These skills allow students to derive their *own* meaning and develop their *own* voice in writing. Students mold the traditional writing process to match individual learning styles. The principle rhetorical objectives in students writing are analysis, close reading, argument, synthesis, and informed citizenship. Students write about subjects portrayed in the mostly non-fiction and a few fiction texts, especially those issues affecting minority peoples d in American

culture. Students must demonstrate an awareness of purpose and audience. Student confidence in their own research and writing capabilities in other academic disciplines emerges with experience in the memoirs, articles, speeches, letters, journal entries, photos, film and other written and visual texts. Student research and subsequent synthesis of many secondary sources grows in complexity as preparation for college.

English 12 Electives

Please note that the department will offer electives upon adequate interest and enrollment in each course.

Afrofuturism through Literature and Music (SPSG)

Afrofuturism is about examining the past, present, and future and imagining a world of better living conditions for people of African descent. This course will evaluate the intersectionality of race, politics, and gender with technology and art. Because Afrofuturism connects the African diaspora with a forgotten history, students will explore the concepts of fantasy, magical realism, and technology through a historical lens. Along with viewing short films, reading short stories and analyzing Beyonce's Lemonade, students will explore literature by Octovia Butler.

Women's Gothic Literature (SPSG)

What do haunted houses and things that go bump in the night have in common with the experience of being female? How do so-called "haunted" places connect to the psychological space of the feminine mind and experience? How might we consider the Gothic's role in grappling with the intersectionality between race, class, sexuality, and gender? In this course, we will examine how writers and artists use the Gothic genre to delve deeply into what it means to be a woman. Texts will include Shirley Jackson's The Haunting of Hill House, Octavia Butler's Kindred, Fae Myenne Ng's Bone, and selected short stories, poems, articles, and films.

Food and Culture Writing (SPSG)

Through reading a variety of texts and crafting their own stories, students will explore food writing across the genres of personal essay, narrative cookbooks, and poetry. Texts will focus on the art of storytelling through food and culture and how the food we eat and share is a direct reflection of our families and communities. Texts will include contemporary essays by Celeste Ng, Michelle Zauner, E. Alex Jung, Eddie Huang, David Chang, Jumpha 27 Lahiri, Samin Nasrat, Kristen Zory King, John Leavitt, among others. Students will also read poems from the anthology, The Hungry Ear: Poems of Food and Drink.

Black Contemporary Literature (SPSG)

What does it mean to love and how do we love? Poets and songwriters have filled books and airwaves with that question. In 1964, Marvin Gaye anthemically crooned "how sweet it is to be loved by you." What does love look like in black contemporary literature? What are its myriad forms and expressions? The aim of this course is to examine contemporary black love as it is expressed in familial, romantic, fraternal, and cultural ways. The course will also examine the absence of love towards black Americans and the impacts of that absence; significantly, racism. Why love? If we hold that the "greatest of all things is love," then why not love? Literature can be many things: a means through which art, culture, history, and politics are created, shaped, and reshaped. But above all, literature is a means through which we make sense of our world and therefore ourselves. What is more vital than exploring one of the most important emotions that connects us to ourselves and to the world in which we live? Love! Students will analyze what love looks

like through works by authors and artists who have thought deeply about this four-letter word. Authors we will encounter include bell hooks, Toni Morrison, Bernardine Evaristo, Jesamyn Ward, Ta-Nehisi Coates, Glory Edim, Alice Walker, Kacen Callender, Britt Bennett, Bolu Babalolai, Audre Lorde, and Sara Collins.

Creative Writing (SPSG)

While exploring contemporary poetry, fiction, and nonfiction, this course expects students to interact with and develop their own creative writing as they hone their analytical skills through essays exploring literature. Students will be exposed to a variety of forms, allowing them to develop their voice, generate drafts, and understand how literary masters use these same techniques in classic and contemporary literature. Students will participate in craft discussions and traditional workshops, encouraging them to provide thoughtful and critical feedback. In order to support instruction in literary analysis and creative writing, students will study a variety of literary vocabulary, advanced grammar skills, and genres.

HISTORY AND SOCIAL SCIENCES

Graduation Requirement: *All students must take three (3) full years of History/Social Science in the Upper School, including World History in 9th grade, and US History in 10th grade.*

World History

The Ninth Grade World History course is the fundamental building block of the Upper School History experience at St. Paul's. This skills-oriented, student-centered course focuses on global relationships and interconnectedness, the role of trade, cultural diffusion and comparative history by examining the contributions of people from all continents. Bridging the ancient civilizations studied in the Middle School to the American experience studied in Tenth Grade, the Ninth Grade World History course continues the methodical development of reading comprehension, writing and research skills learned in the Middle School. Students examine the influence of the earth in human, physical and political terms through extensive work in geography, and they analyze the significance of the most illustrative examples of art, architecture and technology of each culture under study. At every step, the course accentuates student investment in the learning process, helping each student build their repertoire of study skills through consistent practice, while also learning the fundamentals of the Socratic dialogue at the heart of the St. Paul's History experience.

The 9th grade history curriculum is a diverse chronological exploration of the years after the fall of the Roman Empire to the Age of Discovery. By focusing on comparing different cultures across the same time periods students will increase their understanding of historical patterns. The students will make comparisons of the factors that allow civilizations to thrive or decline. By examining the rise of Muslim culture, the Classical period of the Maya empire, and the Dark Ages, students will explore thriving civilizations and compare them to the fracturing of Europe that follows the fall of the Roman Empire. Students then examine the Age of Enlightenment by exploring the evolution of thought and the causes and consequences of globalization. In its focus on developing a flexible, imaginative and multi-layered approach to understanding the world, the course represents the first step of the International Baccalaureate (IB) program in History at St. Paul's, laying a solid foundation for success not only in the Tenth Grade United States History course that immediately follows, but in the IB History Standard Level course and IB History Higher Level sequence available in the Eleventh and Twelfth Grades as well.

US History

This broad survey of our nation's origins, development, and emergence as a world power examines the forces that have shaped the United States while sharpening the core skills necessary for success In the International Baccalaureate History and as citizens in today's complex world. It begins with an investigation of the early American colonies, American Revolution and Constitution, the course explains the long-term impact of the Renaissance, Reformation, and Age of Exploration studied Ninth Grade World History. The class continues by focusing on the challenges faced by the new nation, both large and small, from the Whiskey Rebellion and Trail of Tears to the Civil War and Reconstruction. The year concludes with a study of the transformation of the United States from an inward-looking nation to a world power, exploring the Industrial Revolution, and Progressive Era. Class discussions are essential components of the course, as understanding the role of differing perspectives and compromise are key to being effective in today's society. The students are expected to complete a comprehensive research paper consistent with the expectations of IB Program. The course builds deliberately and methodically on research, reading

comprehend, and writing skills addressed in the World History course, providing students with specific strategies and tools for interpreting complicated texts and incorporating the ideas and events encountered there into the written work and class debate.

AP United States History

AP US History is offered to qualified students who wish to complete studies in an introductory college-level course while still in secondary school. This course is aligned with the revised College Board standards for AP US History and covers Pre-Columbian civilizations through to the present day in an intensive study of the political, social, economic, cultural and intellectual development of the United States and its interaction with the rest of the world. Major emphasis is placed on in-depth analysis of historical themes and acquisition of factual knowledge. Students work to develop and hone their reading, writing, and analytical skills by examining a wide variety of college-level sources, including the textbook, primary documents, maps, graphs, tables, charts, and political cartoons. Students are assessed regularly using a variety of methods geared toward preparing them for success on the AP exam; assessments include multiple choice questions, short answer responses, analytical essays, and research papers. All students in the course are expected to sit for the AP exam (a necessity in order to receive AP designation and credit on their transcript).

Prerequisites: Combination of 1) B+ or above in a previous History course, 2) teacher recommendation, and 3) successful completion of a writing sample through a specific prompt.

IB History Standard Level 1

IB Standard Level History is a global survey of the key events of the Twentieth Century. Level 1 focuses on the first half of the century and is broken into four main categories: New Imperialism, Ideologies, and Economic Theories, Global Conflict Round 1 and Global Conflict Round 2. These headings provide the student to follow the causes and events of our modern world. While much attention is focused on America's history, an international perspective is used to fully explore the thinking and reasoning that guided the Modern Era. Students who take this class will be provided with the content necessary to be successful in the culminating IB History Exam at the end of their senior year.

IB History Standard Level 2

IB Standard Level History is a global survey of the key events of the Twentieth Century. IB SL 2 is designed to focus the students' attention to specific topics as an example of modern governments in action. The topics are: The Bill of Rights, Authoritarian States (Apartheid), Civil Rights in the US, and the Cold War. The subject matter is purposefully selected to highlight the complexities of a modern democracy and examine some of the specific challenges involved in protecting individual rights in our modern global world. These topics were also specifically selected to expose the students to the content necessary for success in the IB History Exam at the end of the year.

IB History Higher Level 1

The first year of the two-year International Baccalaureate History sequence covers the most important events, people, and phenomena from 1898-1949 and explicitly links them to today's world. The course examines Imperialism, the First World War, the birth of Communism, the Great Depression and the rise of Fascism, the subsequent Second World War, and the origins of the Cold War in post-war Europe. There is intensive development of the historical skills emphasized in the Ninth and Tenth Grade courses, with particular emphasis placed on source analysis and formal research, both of which are necessary for success on the IB History

Internal Assessment (completed during the spring of the course) and the IB History Exam (completed at the end of the following year). The IBHL1 History course will approach the content through textual, audio-visual, musical and artistic media, compelling students to handle and interpret content from as many different perspectives as possible. Throughout, the IBHL1 course will emphasize inquiry and discussion, addressing key 20th Century concepts through informal and formal discussion-centered activities. The foremost priorities of this course are for the students to be adequately prepared for higher education, and to gain a significantly greater understanding of how the events of the first half of the 20th Century continue to challenge our society today.

IB History Higher Level 2

The second year of the two-year IB History sequence covers the most important events, people and phenomena 1953-1991 and explicitly links them to today's world. The course examines the Chinese Communist Revolution, the Korean Conflict, Civil Rights, Vietnam, the Modernization of China, the end of the Cold War, and finally a comprehensive review of both HL1 and HL2. IB HL2 continues the intensive development of skills that marks the IB HL1 course and the History curriculum as a whole, placing particular emphasis on source analysis and essay writing, the two skills necessary for success on the IB History Exam (completed at the end of the IB HL2 course). The IB HL2 course also continues the
IB HL1's multi-dimensional approach to content through textual, audio-visual, musical and artistic media and intensive inquiry-based discussion. The IB HL2 course fine-tunes students' capabilities to interpret and understand historical and contemporary issues. Upon completion of this course, students should have the confidence and capacity to find success in any college- level history course and, more importantly, to explore and comprehend any national or global issue that has its origins in the twentieth century.

IB Psychology Higher Level

Psychology is defined as the scientific study of behavior and mental processes. By developing an understanding of the biological, social, and cultural influences on human behavior, students will be able to evaluate different explanations of why humans act the way they do. The IB syllabus pursues this understanding primarily through biological, cognitive and socio-cultural levels of analysis, while also exploring abnormal and developmental perspectives, health, sports psychology and the psychology of human relationships where time and choice permit. The investigation of each level will focus on its historical and cultural context, key concepts, basic assumptions, methodology, strengths and weaknesses, and application. Students study research methodology and replicate an experimental study which will serve as their internal assessment, and they will read and discuss studies such as Roger Sperry's split brain experiments, Freud's theories of personality, Pavlov's classically conditioned dogs, Elizabeth Loftus and the implantation of false memories, Ebbinghaus' discovery of the learning curve, twin studies that explore "nature vs nurture" and the role of free will and determinism. The course's focus on experimental research will place a large emphasis on the scientific method and surrounding ethical issues. Through a thorough exploration of brain development, neurotransmitters, memory, language, emotions, stress, mental illness, and learning, students will develop an awareness of how the applications of psychology in everyday life are derived from psychological theories.

IB Economics Standard Level

This two year course is a survey of both micro- and macro-economic theory. It examines how human beings make decisions about the allocation of scarce resources among alternative uses. In addition to the study of fundamental concepts concerning supply, demand, and government's possible roles in the economy, the course explores varieties of free-market structures and examines debates about taxation and fiscal and monetary policy. After reviewing macroeconomic models, the course emphasizes global topics, including international trade and lesser-developed nations. In addition to rounding out students'

grasp of economics, these units are aimed toward promoting global citizenship, providing additional background in international politics and links to various topics already studied in U.S. and world history. A special feature of the course is student application of economic theory and terminology in creating a portfolio of commentaries on recent economic news articles. Students will be prepared to take the IB SL Economics Exam in May of 12th grade. Both the exam and the portfolio place an emphasis on analytical writing over computation.

AP European History (SPSG)

This course for juniors and seniors an in-depth survey of European history from the Renaissance to the present, with instruction designed to prepare students for the AP European History Exam in the spring. College level reading and writing skills are developed as students engage with a wide variety of primary and secondary sources and explore the changes and continuities in European society, political and economic structures, and Europe's role in the world. Students also engage in intense study of cultural and intellectual institutions and their development. Class activities include discussions, collaborative projects, as well as individual research and presentations. Assessments are comprised of AP-style multiple choice tests and a variety of analytical essay responses to questions that have appeared on AP exams, in addition to review materials prepared by students in a variety of media.

AP Macro Economics (SPSG)

This course introduces students to fundamental national and global economic systems. Students cultivate their understanding of the principles that apply to an economic system as a whole by using principles and models to describe economic situations and predict and explain outcomes with graphs, charts, and data as they explore concepts like economic measurements, markets, macroeconomic models, and macroeconomic policies. Students study the tools of macroeconomic decision- making and apply macroeconomic theory to determine the expected outcomes of policy decisions. The course culminates in the AP Macroeconomics Exam in the spring.

AP World History (SPSG)

AP World History examines the course of human events from the earliest societies through the present, with instruction designed to prepare students to succeed on the AP World History Exam in the spring. The course is divided into six time periods, each of which is explored and analyzed using five themes and according to several key concepts which pertain to specific time periods. Students develop college-level reading and writing skills as they engage with a wide variety of source documents, including the textbook, primary documents, other secondary sources, maps, graphs, and charts. Assessments are designed to measure content mastery as well as critical thinking and analytical writing skills. AP-style multiple choice tests are coupled with writing assignments drawn from past free response questions on the Exam. Students also have the opportunity to pursue independent research and to work collaboratively on projects. The text is Traditions and Encounters: A Global Perspective on the Past, by Jerry Bentley and Herbert Zeigler. Supplemental reading from a variety of sources is made available to the students by the teacher.

AP US Government (SPSG)

This class will explore how the US government plays out in the lives of Americans via civil liberties and rights, political ideologies, government policy, and political participation. Significant time will be devoted to understanding the impact of major Supreme Court decisions as well as writing and data analysis in preparation for the AP test in May.

African American History

Students in this course investigate African American history that is centered on Black perspectives and voices, with the goal of learning through Black History, not simply about Black History. The course explores Black history in the United States, from the colonial period through the contemporary period, providing depth and perspective into America as it was and is. Instruction is inquiry based and promotes the development of critical reading and historical thinking skills including source analysis, contextualization, and argumentation. Students engage with a wide variety of primary and secondary sources, including written texts, art, music and other types of expression. Assessments include periodic tests and quizzes, as well as writing assignments, presentations, and debates. A final capstone project provides students with the opportunity to devise an essential question, conduct research, and create an original work.

Art History: History of the World Cultural Perspective (SPSG)

This course surveys art history across the globe from prehistoric times to the present. This course neither requires nor assumes that students have any prior background in the discipline. The course is structured thematically, inviting students to investigate, compare, and discover connections both within and among cultures as we explore diverse ways that art reflects and communicates ideas about religious beliefs, power and status, the human body, the natural world, and more. In learning more about the history of art in diverse cultures, students refine their abilities to look at art, analyze it, and talk and write about it from critical perspectives, and they have opportunities to explore their own values, assumptions, and creative capabilities.

The Cold War Honors (SPSG)

Students in this course explore the nature of the Cold War, the factors that led to the end of the Cold War, and the characteristics of the post-Cold War world. The course is designed to provide a global perspective while allowing students to explore the causes and consequences of global shifts in individual regions and states. Students have the opportunity to compare and contrast events in East Asia, for example, with those in Latin America, Oceania, South Asia and central Asia. Course materials are drawn from a variety of primary and secondary sources and students engage in individual and collaborative research on a variety of topics.

Issues in International Diplomacy (SPSG)

This course introduces students to the concepts, methods and institutions that underlie the international order in the modern world, as well as forces of change that challenge that order. Students explore the practice of diplomacy in a variety of historical and present-day situations and engage in debates and simulations reflecting important 36 issues. Students identify the foreign policy goals of various state actors as well as analyze the methods used to reach those goals. With the US presidential election in full swing, we will examine and analyze the foreign policy positions of the presidential candidates. Course materials include a variety of secondary and primary resources and students conduct meaningful research on a consistent basis.

Women's History (SPSG)

The Women's History elective explores the roles and contributions of women in the United States from the nineteenth century to the twenty-first century through political, economic, social, and cultural history. The course examines women's experiences and history from multiple perspectives, using a wide range of source material. Students also continue to practice and strengthen historical thinking and writing skills. Through collaborative and hands-on projects and writing assignments, students conduct primary source

research and work together to create their own understanding of women's history in the United States and women's contributions and significance to world events today.

World History into the Twenty First Century Honors (SPSG)

World History into the 21st Century, Honors 2: This second semester course begins with the end of the Cold War and examines the political, economic and social changes that accompany the formation of a new world order from approximately 1989 until the present day. The first semester course is not a prerequisite, but the approach will continue to provide a global perspective while allowing students to explore the causes and consequences of global shifts in individual regions and states. Students will have opportunities to direct their own research and emphasis will be placed on developing strong historical writing skills.

Entrepreneurship (SPSG)

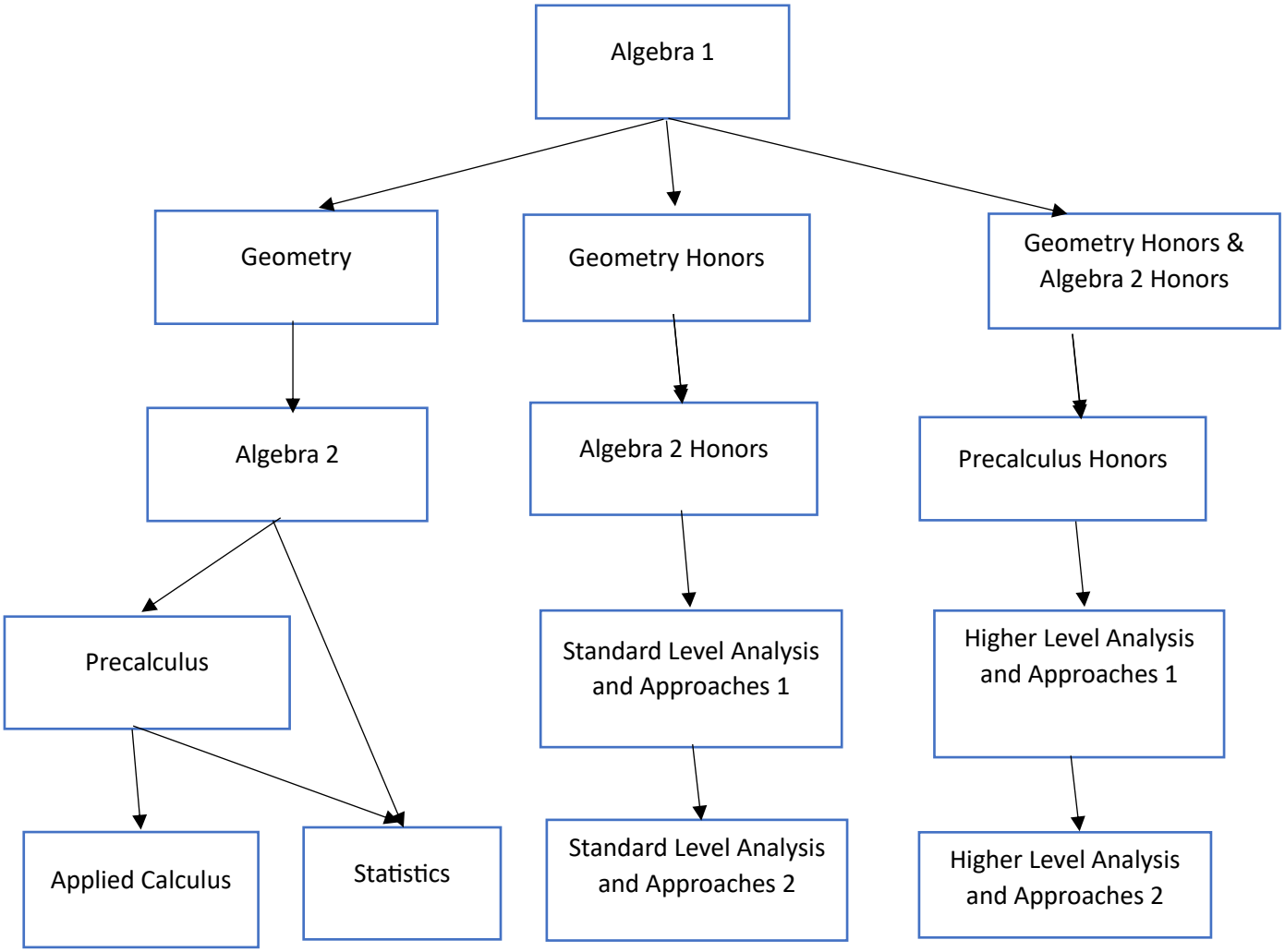
This course develops an understanding of the fundamentals of entrepreneurship and innovation, especially focused in the field of technology innovation. Students explore basics of entrepreneurial business such as designing a business plan, marketing and customer strategy, and developing innovations to solve problems. In addition, students learn the historical and current landscape of technology innovation from the beginning stages in Silicon Valley to the large market now in Baltimore, MD. Students explore and debate forecasted innovations and tech trends that will shape the future as well as develop an understanding of how social entrepreneurship can drive innovation and support community and global needs and problems. The course brings in outside experts to share their stories, site visits to innovative incubators, shared workplaces, and companies, and workshops with innovators to develop ideas and gain an understanding of the industry. A project-based class, some of the topics focused on are tech current events, future of innovation debates, analyzing the impact of specific innovators and tech innovations on the world, and a final project of designing a business plan for a start-up.

MATHEMATICS

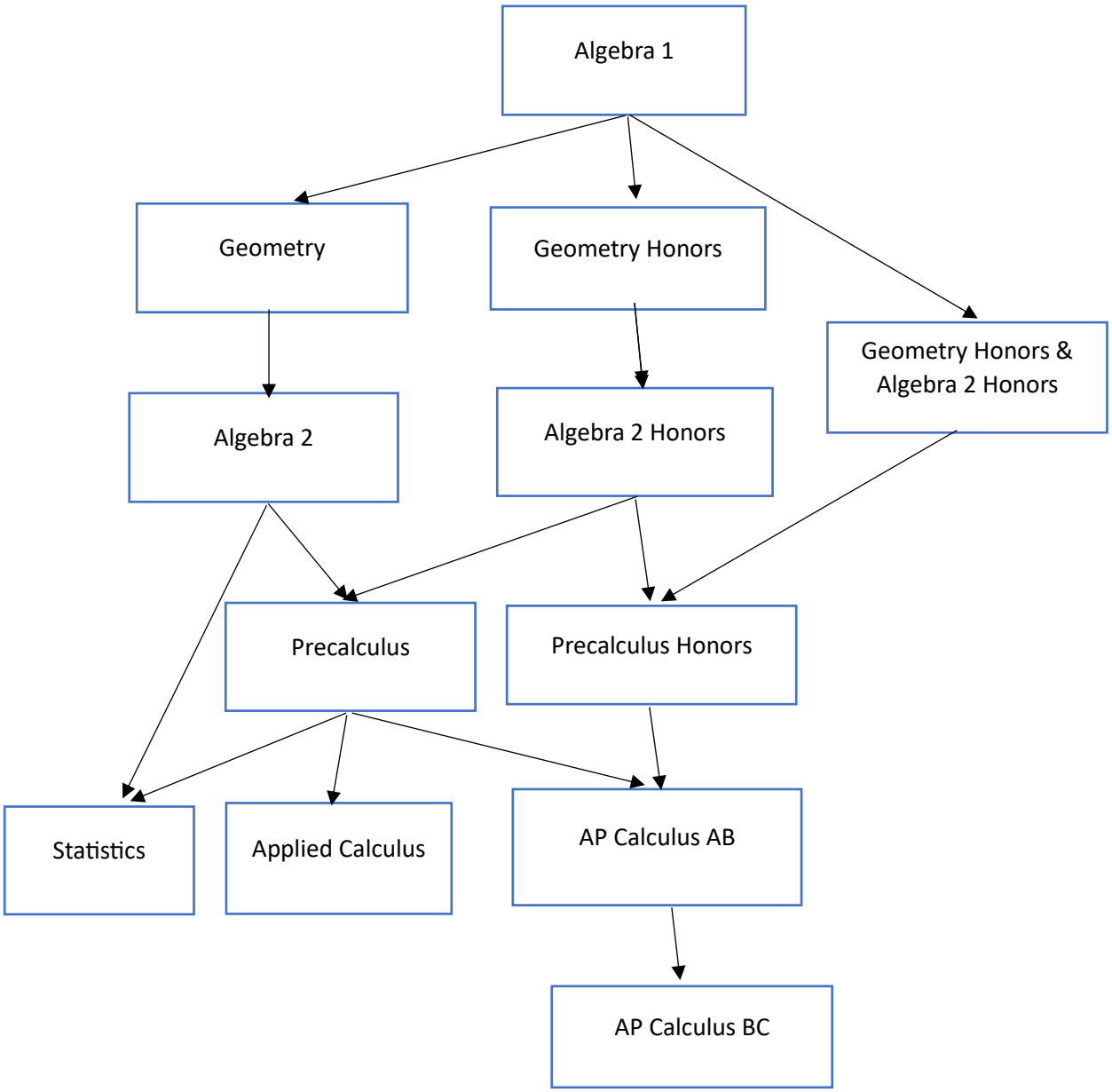
Each mathematics course is designed to help students develop traits of resourcefulness, creativity, imagination, perseverance, and curiosity. The mathematics department believes that each student needs to be actively involved in their learning. Students will speak, write, and reason with mathematics as they acquire knowledge and understanding of problem solving, processes, facts, and concepts.

Graduation Requirement: *SP requires graduates to complete four (4) year of mathematics, including the successful completion of Algebra 2. All students must have demonstrated mastery of Algebra 1 in Middle School or Grade 9 before beginning Geometry.*

Course Sequencing for Class of 2025, 2026, 2027



Course Sequencing for Class of 2028 and beyond (subject to change)



Algebra 1

This course introduces the algebraic skills in the context of solving problems drawn from many areas of the student's real-world experiences. Through the use of fundamental mathematical ideas and methods, students develop an understanding of variables, expressions, equations, functions (primarily linear), relations, systems of equations, and equivalence. Using these skills and having the support of graphing

devices, students will learn the fundamental algebra skills and reasoning skills that will be applied to further courses.

Geometry

The geometry course is based on plane Euclidean Geometry and uses an inductive approach to enable students to understand the concepts and vocabulary of geometry with heavy integration of algebra throughout the course. Students are encouraged to discover geometric facts both individually and in groups. The course allows students to analyze the properties of one, two- and three-dimensional objects before making conjectures and solving problems related to triangles, quadrilaterals, circles, areas, and volumes. Using these shapes students will explore the foundations of logic and reasoning, while improving on the algebraic foundations in the previous course.
Prerequisite: Successful completion of Algebra 1

Geometry Honors

The intensive geometry course is based on plane Euclidean Geometry and uses an inductive approach to enable students to understand the concepts and vocabulary of geometry with heavy integration of advanced algebraic techniques and right-triangle trigonometry throughout. Students are encouraged to discover geometric facts through exploration both individually and in groups. The course allows students to analyze the properties of two- and three-dimensional objects before making conjectures and solving problems related to triangles, quadrilaterals, circles, areas, and volume with a strong emphasis of proofs.
Prerequisite: Successful completion of Algebra 1 and teacher recommendation

Algebra 2

The Algebra 2 curriculum extends beyond the foundational algebraic concepts covered in previous courses, aiming to enhance students' comprehension and reasoning abilities. By delving into the study of various functions, such as quadratic, polynomial, absolute value, and radical functions, students will acquire not only a deep understanding of function properties but also essential algebraic skills, including factoring and rational exponents. This instructional approach ensures a continuous learning process where students actively apply these fundamental skills in the context of functions and models. Furthermore, the course provides an opportunity for students to explore advanced topics such as complex numbers, rational functions, and properties of logarithms. This comprehensive curriculum serves as a robust foundation, equipping students with both abstract and applicable skills necessary for the next courses in the sequence.
Prerequisite: Successful completion of Algebra 1 and Geometry

Algebra 2 Honors

The Algebra 2 curriculum extends beyond the foundational algebraic concepts covered in previous courses, aiming to enhance students' comprehension and reasoning abilities. By delving into the study of various functions, such as quadratic, polynomial, absolute value, and radical functions, students will acquire not only a deep understanding of function properties but also essential algebraic skills, including factoring, rational exponents, and properties of logarithms. This instructional approach ensures a continuous learning process where students actively apply these fundamental skills in the context of functions and models. Furthermore, the course provides an opportunity for students to explore advanced topics such as complex numbers, rational functions, inverse functions, composition of functions and

analytical trigonometry to further improve their understanding of mathematics. This comprehensive curriculum serves as a robust foundation, equipping students with both abstract and applicable skills necessary for more advanced courses.
Prerequisite: Successful completion of Algebra 1 and Geometry Honors, and teacher recommendation

Precalculus
This course builds on the foundations of Algebra 2 with a great emphasis using functions and reasoning to help students make connections and reason both abstractly and within applications. Topics include trigonometry, basic analytic geometry, and elementary and transcendental functions, with a focus on domain and range of functions, complex numbers, and basic algebraic concepts that are fundamental to success in calculus. This course requires higher-level abstract thinking, and, whenever possible, students study functions from all four perspectives: verbally, analytically, graphically, and numerically. The course is designed to prepare the students for future course work in mathematics such as calculus and statistics.
Prerequisite: Successful completion of Algebra 2

Precalculus Honors
This course is designed for highly motivated students with a passion for mathematics who have fulfilled the prerequisite requirements. It delves into the realms of elementary and transcendental functions, algebraic properties and algebraic proof (not to be confused with geometric proof) and recognition of patterns with and without technology. Covering topics include but not limited to polynomials, nested exponential equations, logarithms, their properties, and rigorous logarithmic equations; sequences, series, trigonometric functions, and analytic trigonometry. The course is fast-paced and assumes strong note-taking skills and study habits from each student. Upon completion, students gain an understanding of mathematical problem-solving and reasoning, utilizing mathematics as a language to creatively address novel problems.
Prerequisite: Successful completion of Geometry Honors, Algebra 2 Honors, AND teacher recommendation

Statistics
This course shows students the major concepts for collecting and analyzing data. The major components of this course include gathering data, describing data, and analyzing data, including statistical analysis These components are explored using authentic tasks that will require both inferential and descriptive statistics using technology to provide both visual and analytical analysis. After taking this class, students will have a better understanding about how information is used to make prediction and claims both inside and outside the classroom.
Prerequisite: Algebra 2 or Precalculus

Applied Calculus
This course is designed as a foundational introduction to calculus, preparing students for the rigors of college-level mathematics. By incorporating skills and knowledge from Algebra 2 and Precalculus, students will establish essential connections with new mathematical concepts, including limits, derivatives, and integrals. This calculus-focused course goes beyond theoretical understanding, requiring students to apply their knowledge to real-world scenarios and think critically about how each topic contributes to a deeper comprehension of the world. By providing a solid foundation for a college calculus course, this course provides a foundation for students who want to pursue a career in Stem or business.
Prerequisite: Precalculus

IB MATHEMATICS—SUMMARY OF COURSES AVAILABLE

Because individual students have different needs, interests and abilities, there are two different mathematics course tracks offered to students in 11th and 12th grade. These courses are designed for different types of students: those who wish to study mathematics in depth, either as a subject in its own right, or to pursue their interests in areas related to mathematics; those who wish to gain a degree of understanding and competence to understand better their approach to other subjects; and those who may not as yet be aware how mathematics may be relevant to their studies and in their daily lives. Each course is designed to meet the needs of a particular group of students. Therefore, great care should be taken to select the course that is most appropriate for an individual student. In making this selection, individual students should be advised to take account of the following factors:

- their own abilities in mathematics and the type of mathematics in which they can be successful
- their own interest in mathematics and those particular areas of the subject that may hold the most interest for them
- their other choices of subjects within the framework of the Diploma Programme
- their academic plans, in particular the subjects they wish to study in future
- their choice of career. Teachers are expected to assist with the selection process and to offer advice to students.

Mathematics Analysis and Approaches (Referred to as Math AA SL and Math AA HL)

The Analysis and Approaches course is designed for students who wish to develop their mathematical skills in a purer context. Most students taking the Analysis and Approaches course would likely go on to study courses at the tertiary level that would include more mathematical content. Technology is used to enhance the teaching of some concepts, but students will not have the use of technology on all parts of the final exam. The course curriculum includes topics in Algebra, Geometry, Statistics, Trigonometry, and Calculus, and includes a Mathematical Exploration designed by the student.

IB Math AA Standard Level

Within this course, Students will have delved extensively into a comprehensive array of topics, spanning differential and integral calculus, foundational principles of descriptive statistics and the normal distribution, and a thorough study of functions. In the AA SL program, students not only engage with these subjects but learn to reason and communicate math as a language. The course places a strong emphasis on applying mathematical concepts in both real-life scenarios. Tailored for students aspiring to pursue STEM majors in college, this curriculum is designed to provide the requisite foundations and skills for success. By seamlessly integrating theoretical understanding with practical application, the course equips students not only to meet the challenges of higher education but also to navigate and excel in the diverse landscape of STEM-related fields, emphasizing reasoning, communication, and practical application as integral component.

Prerequisite: Algebra 2 Honors and a teacher Recommendation

IB Math AA Higher Level:

In the challenging AA HL course, students delve deeply into advanced mathematical topics, including differential and integral calculus, descriptive statistics, proofs, and differential equations. This course emphasizes not only developing proficiency in reasoning and communicating math as a language but also practical applications in real-life and abstract contexts. This course seamlessly integrates theoretical

understanding with practical application, preparing students for the complexities of higher education and STEM-related fields, with an emphasis on reasoning, communication, and practical skills. Ideal for motivated students who have a love for mathematics, the AA HL curriculum provides an extensive background preparing students to think and reason with and through mathematics.
Prerequisite: Precalculus Honors and a teacher Recommendation

SCIENCE

Our students SEEK TRUTH, KNOWLEDGE, and EXCELLENCE through authentic learning experiences designed to develop, value, and apply a scientific mindset.
The philosophy of the St. Paul's School Science program is to develop global citizens who use scientific skills to make evidence-based decisions and effect change for the good of society. In keeping with the developmental appropriateness of our K-12 program, students will gain an appreciation of the relationship between science and the world around them. Our students develop scientific reasoning skills, while fostering mindsets of discovery and curiosity, to pursue their passions. Our students LIVE BY FAITH, COMPASSION, and INTEGRITY by utilizing effective scientific reasoning to understand, evaluate and interpret when engaging with the world around them.

Graduation Requirement: *All SP students must take three (3) full years of Lab Science in Grades 9, 10, 11.*

Integrated Science 9

This is the first part of a two-year sequence aimed at developing the necessary knowledge base and skill set for success in science and engineering. The course covers core content in physics, engineering, chemistry, and biology with an emphasis on showing the links between the disciplines and their applications to everyday situations. Topics covered in 9th grade include: kinematics, dynamics, the particle model of matter, thermal energy and heat transfer, structure of atoms, chemical energy, light, matter, and metabolism. Scientific process is also an important aspect of this course. Students learn engineering design and methodology, experimental design, data analysis, error analysis and the additional mathematical skills necessary for higher level work in science and engineering.

Integrated Science 10

The 10th grade Integrated Science course is the second part of a two-year sequence aimed at developing the necessary knowledge base and skill set for success in science and engineering. The course covers core content in physics, engineering, chemistry and biology with an emphasis on showing the links between the disciplines and their applications to everyday situations. Topics covered in 10th grade include: motion and forces, simple machines, evolution, cell structure, molecular genetics. As in the 9th grade, scientific process is an important aspect of this course, emphasizing experimental design and analysis, and the additional mathematical skills necessary for higher-level work in science and engineering.

IB Biology Higher Level

During the IB Biology HL course, students will become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterizes the sciences. The course will provide students with opportunities to design investigations, collect data, develop manipulative skills, analyze results, collaborate with peers, and evaluate and communicate their findings.
The following topics comprise the core of the curriculum:

1. Cell biology
2. Molecular biology
3. Genetics
4. Ecology
5. Evolution and biodiversity

6. Human physiology
7. Nucleic acids
8. Metabolism, cell respiration and photosynthesis
9. Plant biology
10. Genetics and evolution
11. Animal physiology

Students in IB Biology work with students in other IB science classes to design interdisciplinary experimental projects (the G4 Project).

IB Chemistry Standard Level

The IB Standard Level Chemistry course enables students to develop a wide range of practical skills and to increase facility in the use of mathematics. Both theory and practical work will be undertaken by students as they complement one another naturally, both in school and in the wider scientific community. The course encourages students to develop interpersonal and information technology skills, which are essential to life in the 21st century.

The following topics comprise the core of the curriculum:

1. Stoichiometric relationships
2. Atomic structure
3. Periodicity
4. Chemical bonding and structure
5. Energetics/thermochemistry
6. Chemical kinetics
7. Equilibrium
8. Acids and bases
9. Redox processes
10. Organic chemistry
11. Measurement and data processing

Students in IB Chemistry work with students in other IB science classes to design interdisciplinary experimental projects (the G4 Project).

IB Computer Science Standard Level

The IB Computer Science SL course is above all about designing and implementing solutions to problems. Students will learn to think critically, methodically, and computationally. While we'll be uncovering how computers, networks, and the Internet work, this course is really about information – how we think about it, represent it, and process it. Over the two years of this course, students will program in the languages of Scratch, C, Processing, and Python, with the majority of time spent on Python and Processing. The focus is on writing text-based and graphical user interface games. We will also spend some time on basic robotics. Students can take this course without any prior programming experience.

IB Environmental Systems and Societies Standard Level

The prime intent of this course is to provide students with a coherent perspective of the interrelationships between environmental systems and societies; one that enables them to adopt an informed personal response to the wide range of pressing environmental issues that they will inevitably come to face. Students' attention can be constantly drawn to their own relationship with their environment and the

significance of choices and decisions that they make in their own lives. It is intended that students develop a sound understanding of the interrelationships between environmental systems and societies, rather than a purely journalistic appreciation of environmental issues.

IB Physics Higher Level

Physics is the most fundamental of the experimental sciences, as it seeks to explain the universe itself, from the very smallest particles to the vast distances between galaxies. Despite the exciting and extraordinary development of ideas throughout the history of physics, observations remain essential to the very core of the subject. Models are developed to try to understand observations, and these themselves can become theories that attempt to explain the observations. Besides helping us better understand the natural world, physics gives us the ability to alter our environments. This raises the issue of the impact of physics on society, the moral and ethical dilemmas, and the social, economic and environmental implications of the work of physicists. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterizes the subject. During the IB Physics HL course. students will have many opportunities to develop manipulative skills, design investigations, collect data, analyze results and evaluate and communicate their findings.

The following topics comprise the core of the curriculum:

1. Measurements and uncertainties
2. Mechanics
3. Thermal physics
4. Waves
5. Electricity and magnetism
6. Circular motion and gravitation
7. Atomic, nuclear and particle physics
8. Energy production
9. Wave phenomena
10. Fields
11. Electromagnetic induction
12. Quantum and nuclear physics

In addition, students will study one from the following list of optional areas: Relativity, Engineering physics, Imaging, Astrophysics.

Students in IB Physics work with students in other IB science classes to design interdisciplinary experimental projects (the G4 Project).

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8. Energy production

In addition, students will study one from the following list of optional areas: Relativity, Engineering physics, Imaging, Astrophysics.

Students in IB Physics work with students in other IB science classes to design interdisciplinary experimental projects (the G4 Project).

IB Design Technology Standard Level

Both science and technology have a fundamental relationship with design. Technology preceded science, but now most technological developments are based on scientific understanding.
Traditional technology comprised useful artifacts often with little understanding of the science underpinning their production and use. In contrast, modern technology involves the application of scientific discoveries to produce useful artifacts. The application of scientific discovery to solve a problem enables designers to create new technologies and these new technologies, in turn, can have impact on the rate of scientific discovery. The aim of the IB DT course is to foster the skill development in students required to use new and existing technologies to create new products, services and systems.
The following topics comprise the core of the curriculum:

- Human factors and ergonomics
- Resource management and sustainable production
- Modelling
- Raw material to final product
- Innovation and design
- Classic design

Anatomy
This course explores the structure and function of the human body at multiple levels: individual cells, their coming together to form tissues, the organization of tissues into organs, organs working together as parts of organ systems, and finally how those organ systems support one another to maintain the body. Normal structure and function are presented as a starting point, and then the effects of disease processes on structure and function are examined.
This course is offered to juniors and seniors.

Forensics
Forensic Science is the application of science to those criminal and civil laws that are enforced by police agencies in a criminal justice system. Specifically, forensic science deals with the analysis of evidence. This course uses the areas of biology, chemistry, physics, and geology to determine the evidential value of crime-scene and related evidence. Specific topics include: fingerprints, toxins, hair and fibers, ballistics, and DNA. Lab activities accompany each topic. Noteworthy "famous" cases are discussed.
This course is offered to seniors.

Introduction to Computer Science
This Introduction to Computer Science course is for students interested in developing software applications. Programming in Python, Processing, and Arduino, students will create interactive applications, including basic robotics. Students will learn problem solving, software design, debugging strategies, and algorithms. Projects will focus on games and electronics systems using open-source tools.
This course is offered to sophomores.

Introduction to Engineering
The Introduction to Engineering course will introduce students to some of the major concepts and practices in engineering today. The course will impart content and skills related to the following units: mechanical design, electricity and electronics, energy systems, robotics, and general design. Students will design and construct prototypes to satisfy challenges. The highest-level mathematics required is Algebra I, though some Algebra II concepts will be introduced and used in the course as well.
This course is offered to sophomores.

AP Computer Science Principles (SPSG)
AP Computer Science Principles introduces students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts, all of which are essential to over 130 careers. AP Computer Science Principles gives students the opportunity to use technology to address real-world problems and build relevant solutions. This course is geared not just to students interested in pursuing computer sciences, but also to students who are interested in the skills they use every day with computers and other technologies. Students may take AP Principles of Computer Science as a mathematics elective; however, this course will not be considered as part of a student's required four years of mathematics.
Prerequisite: Algebra 1; No pre-requisite knowledge of any programming language required

Food Chemistry (SPSG)
This one-semester course challenges students to take on the role of a food scientist as they investigate science concepts relating to food science. Students learn about the fundamental and relevant chemistry of water, carbohydrates, proteins, lipids, and preservatives. There are projects on food production and

packaging, how food chemicals interact with your senses and the brain, a project relating to a major holiday meal (Thanksgiving or Easter), and a project of the student's choice. Past projects have looked at food storage methods, aquaponics versus fishing, and the challenges relating to organic food production. **Prerequisite:** Chemistry or Chemistry Honors

Investigative Science (SPSG)

Using situations of crimes as a basis for the investigations, this semester course investigates how to analyze different types of evidence and explores the kinds of information we can glean from such investigations. The course covers aspects of Chemistry, Biology and Physics using the application of prior and new learning to draw conclusions. Stomach contents are analyzed for food chemicals and the presence of drugs. Ink analysis could reveal a forged historical document. A fingerprint and a strange pink fiber might be important clues to the identity of a suspect. The course employs a hands-on approach and ends with a capstone project involving simulated ballistics.

Kinetic Sculpture (SPSG)

Using the engineering design methodology know as design thinking, students research, design, and fabricate a human-powered kinetic sculpture for entry in the annual Kinetic Sculpture Race sponsored by the American Visionary Arts Museum in Baltimore, American Visionary Art Museum (avam.org) . The constructed contraption must survive 15 grueling miles through the streets of downtown Baltimore plus overcome obstacles of water, sand, and mud. During the year students learn the basics of bicycle mechanics and apply their knowledge of the physics of moving objects to building the kinetic sculpture.

WORLD LANGUAGES AND CULTURES

Graduation Requirement: *Students must successfully complete three (3) consecutive years of the same language in the Upper School. Exceptions may be made only by the Upper School Head or Assistant Upper School Head, in conjunction with the Director of Learning Services.. Please note that all SP World Languages & Cultures classes are coordinated courses, open to students at St. Paul's School and St. Paul's School for Girls,, to maximize opportunities for students. Chinese, French, and Spanish are taught at St. Paul's School for Girls and German, Japanese, and Spanish are taught at St. Paul's School. Students at both schools may choose to take any of the five languages offered on our shared campus. To extend their experience, students are encouraged to take advantage of the many cultural events, travel and exchange opportunities available as a part of the programs in each language.*

Spanish

St. Paul's Upper School offers Spanish from level 1 through 5. The Spanish program begins with an introduction to essential vocabulary and basic sentence structure. Particularly at the beginning levels, speaking and listening skills are emphasized. Writing and reading skills gain significantly in importance as students move from one level to the next. Students also learn a great deal about the cultural heritage of the Spanish-speaking world and analyze similarities and differences in relation to the United States. As their mastery of the basics deepens, Spanish students begin their study of the different tenses of Spanish grammar as well as the various nuances in vocabulary. Students engage in interviews, role playing, debates, and skits as part of the highly-interactive classroom. In the later years of Spanish, students take a more in-depth look at Spanish and Latin American society in extensive units on history, politics, music, and literature. Students in Level 2 Honors and higher are eligible to participate in the National Spanish Exam and are encouraged to take part in our bi-annual homestay program in Sitges, Spain.

French

French is offered as part of our coordinated language program with St. Paul's School for Girls. Classes are taught with the greatest emphasis placed on communication. Students read and write in authentic French, and French is the language of the classroom as much as possible. In order to reflect the diversity of the French-speaking world, students read, study, and learn about francophone Africa, the Caribbean, Canada, Louisiana, and parts of Asia where French is spoken. To enhance the French program, students are given the opportunity to participate in a bi-annual home-stay program in France. Students also participate yearly in the National French Contest, and St. Paul's has a history of winners on the state and national levels.

German

St. Paul's German program offers German from level 1 through 4. In the first two years, students are introduced to a wide range of vocabulary and the essentials of German grammar. In years three and four, students continue to expand their vocabulary while also honing their grammar skills and adding complex structures to their repertoire. Throughout the German program, students are immersed in the culture of the German-speaking world. Speaking and listening skills are emphasized every year, but during the last two years in particular the student also learn to express themselves in a variety of writing formats.

Japanese

St. Paul's offers Japanese from levels 1 – VI. Japanese levels 1 – III emphasizes the mastery of fundamental vocabulary and grammar, which are necessary for everyday communication while

introducing interesting Japanese customs and traditions. Japanese IV and V further develop the four language skills and deepen students' knowledge of Japanese culture and society. Japanese VI is an independent study course where advanced language students can enjoy Japanese learning in an immersed setting with authentic materials.

St. Paul's School has exchange programs with Gakushuin Boys' Senior High School in Tokyo, Japan, and the Rikkyo Niiza High School in Saitama, Japan. We welcome one exchange student from each school for the entire school year. Furthermore, St. Paul's students have the opportunity to study for 2 weeks at Rikkyo (in alternating years) or for 4 months at Gakushuin each year.

Chinese

Mandarin Chinese is offered as part of our coordinated language program with St. Paul's School for Girls. The program provides students with an excellent cultural opportunity to study the world's most spoken language. Chinese 1 introduces students to standard Mandarin pronunciation, tones, and basic grammatical structures through oral, aural, and written exercises. In Chinese 2, students learn more of the vocabulary and grammar that will enable them to survive and thrive in a Chinese setting. Students will continue to refine their tones and listening comprehension in levels 3 and 4. They will also increase the number of characters they have mastered to the point where, at the end of the year, they will be able to read simple newspaper articles.

RELIGIOUS STUDIES

Graduation Requirement: *One (1) full credit, including World Religions in Grade 9 and IB Theory of Knowledge in Grade 11.*

World Religions

The World Religions course is an introduction to the academic study of religion and of world religions with an emphasis on the religious traditions of Judaism, Islam, Christianity, Hinduism and Buddhism. Minor religions and some new religious movements will be briefly explored. The course examines the historical evolution, the fundamental doctrines and beliefs, the practices, institutions, and cultural expressions of these religious traditions.

As we explore each religion individually, we will be guided by three fundamental questions that can be answered according to the religion in question:

1) What is the human condition?
2) Where are we going?
3) How do we get there?

In answering these questions, we will also remain aware of the great diversity of expression and beliefs within each religious tradition. No religion or worldview can be completely defined and delimited, but understanding the basic underpinnings of these traditions is an important starting point in an ever increasingly pluralistic society.

World Religions is a required course for all 10th grade students.

IB Theory of Knowledge 1

TOK is a course about critical thinking and inquiring into the process of knowing, rather than about learning a specific body of knowledge. It is a core element which all Diploma Program students undertake and to which all schools are required to devote at least 100 hours of class time. TOK and the Diploma Program subjects should support each other in the sense that they reference each other and share some common goals. The TOK course examines how we know what we claim to know. It does this by encouraging students to analyze knowledge claims and explore knowledge questions. A knowledge claim is the assertion that “I/we know X” or “I/we know how to Y”, or a statement about knowledge; a knowledge question is an open question about knowledge. A distinction between shared knowledge and personal knowledge is made in the TOK guide. This distinction is intended as a device to help teachers construct their TOK course and to help students explore the nature of knowledge.

While there are arguably many ways of knowing, the TOK course identifies eight specific ways of knowing (WOKs). They are language, sense perception, emotion, reason, imagination, faith, intuition, and memory. Students are briefly introduced to each WOK during their first quarter of study, and are encouraged to examine the strengths and weaknesses of the various WOKs.

The WOKs have two roles in TOK:

- they underlie the methodology of the areas of knowledge
- they provide a basis for personal knowledge.

Discussion of WOKs will naturally occur in a TOK course when exploring how areas of knowledge operate. Since they rarely function in isolation, the TOK course explores how WOKs work, and how they work together, both in the context of different areas of knowledge and in relation to the individual knower.

Areas of knowledge (AOK) are specific branches of knowledge, each of which can be seen to have a distinct nature and different methods of gaining knowledge. In 11th grade, students focus on history, ethics, and religious knowledge systems. Students are encouraged to explore which ways of knowing come into play in each of these areas of knowledge, and why we might rely on some WOKS and not others depending on the AOK.
IB Theory of Knowledge 1 is a required course for all 11th grade students.

IB Theory of Knowledge 2

IB TOK is a course about critical thinking and inquiring into the process of knowing, rather than about learning a specific body of knowledge. The TOK course examines how we know what we claim to know and it does this by encouraging students to analyze knowledge claims and explore knowledge questions. TOK is a core element of the IB Diploma and all Diploma candidates are required to register for IB TOK in both 11th and12th grade.
While there are arguably many ways of knowing, the TOK course identifies eight specific ways of knowing (WOKs). They are language, sense perception, emotion, reason, imagination, faith, intuition, and memory. In the second year of IB TOK, reason, sense perception, memory and emotion are studied in depth and in close relation to the areas of knowledge that form the focus of the course. Since they rarely function in isolation, the course explores how WOKs work, and how they work together, both in the context of different areas of knowledge and in relation to the individual knower.
Areas of knowledge are specific branches of knowledge, each of which can be seen to have a distinct nature and different methods of gaining knowledge. TOK distinguishes between eight areas of knowledge: mathematics, the natural sciences, the human sciences, the arts, history, ethics, religious knowledge systems, and indigenous knowledge systems. During the IB TOK 2 course, students cover mathematics, natural sciences and the arts.
There are two assessment tasks in the IB TOK course: an essay and a presentation. The essay is externally assessed by the IB, and must be on any one of the six prescribed titles issued by the IB for each examination session. The maximum word limit for the essay is 1,600 words. The TOK essay is written during January and February of the senior year. The presentation can be done individually or in a group, with a maximum group size of three. Approximately 10 minutes per presenter is allowed, up to a maximum of approximately 30 minutes per group. The TOK presentation is prepared during February and March of the senior year.