

CURRICULUM GUIDE 2023-24

KINDERGARTEN THROUGH
GRADE 12



ST. PAUL ACADEMY
AND SUMMIT SCHOOL

LOWER SCHOOL | K-5

CURRICULUM OVERVIEW

The Lower School curriculum supports and expands children’s natural love of learning and eagerness to be a part of a community. Creativity and collaboration are crucial qualities in educating the whole child.

A child’s academic day alternates between homeroom and specialist classes. Homeroom teams build skills in mathematics, language arts, and social studies as well as opportunities for social-emotional learning. Specialists provide instruction in science, Spanish, computer science and engineering, art, music and movement, library, and physical education. Throughout the year, homeroom teachers and specialists make adjustments to instruction based on what they observe in each child. Differentiation is used carefully with the understanding that students’ abilities are constantly evolving, developing, and changing.

Classes are characterized by flexible groupings and individualized guidance, made possible by low student-to-teacher ratios and multi-age classroom configurations. Two lead teachers in every homeroom facilitate enhanced learning for all students. The rotating six-day schedule allows for optimum emphasis on multidisciplinary skill-building in the three homeroom disciplines, as well as in the seven specialist classes, while incorporating opportunities for open play which are so important for young children.

A WEEK IN GRADE 3

	DAY 1	DAY 2	DAY 3 WEDNESDAY	DAY 4	DAY 5	DAY 6
8:00-8:15	MORNING MEETING		LATE START MORNING MEETING	MORNING MEETING		
8:20-9:00	ASSEMBLY	MINI		MINI	ASSEMBLY	MINI
9:00-10:00	MATH	MATH	MATH	MATH	MATH	MATH
10:00-11:00	LANGUAGE ARTS	ART	LANGUAGE ARTS	LIBRARY	LANGUAGE ARTS	SCIENCE
11:00-12:00	LUNCH AND RECESS					
12:00-1:00	MUSIC	LANGUAGE ARTS	LANGUAGE ARTS	LANGUAGE ARTS	LANGUAGE ARTS	LANGUAGE ARTS
1:00-2:00	LANGUAGE ARTS	P.E.	SPANISH	P.E.	SOCIAL STUDIES	P.E.
2:00-3:00	SOCIAL STUDIES	LANGUAGE ARTS	MUSIC	SCIENCE	ART	SPANISH

LANGUAGE ARTS

The language arts curriculum develops children's skills in reading, writing, speaking, and listening. The curriculum is designed to meet the needs of every student at their level; it is flexible and appropriately challenging as teachers work with students on phonemic awareness, phonics, vocabulary acquisition, self-expression through writing and oral presentations, appreciation of a variety of literary genres, and the mechanics of spelling and grammar. Students form a love of reading and demonstrate strength in comprehension and critical thinking skills. Small groups allow teachers to provide individualized guidance as students build fluency in their reading and writing; teachers adjust differentiated student groupings throughout the year.

Throughout the Lower School, the language arts are often integrated with other academic content areas such as social studies, where students incorporate research, literary analysis, the give-and-take of discussion, and creative and expository writing.

◆ ***When students leave the Lower School, they are curious and engaged readers, confident writers, and have the oral and written communication skills they will need in Middle School and beyond.***

MATHEMATICS

The *Math in Focus* curriculum provides the foundation for mathematics instruction in the Lower School. Within the homeroom setting, students are placed in differentiated groupings based on ongoing assessments. In these small groups, teachers use discussion and rich problem-solving to challenge and support each student according to the student's skill level and developmental readiness. Students who master basic concepts are encouraged to accept further challenges, enrichment, and acceleration when appropriate.

The *Math in Focus* curriculum emphasizes deep comprehension and the "why" behind quantitative concepts. An understanding of the meaning and significance of mathematical concepts is developed in addition to the fundamental applications of elementary mathematics.

◆ ***By the end of Grade 5, all students are well-prepared for the demands of Middle School mathematics. Students who have completed accelerated work in Grades 3-5 are placed in an appropriate Middle School course after assessment by SPA math faculty members.***

SCIENCE

Hands-on science, engineering, and computer science classes take place in two dedicated science classrooms and a Makerspace with two full-time science specialists and a STEM integration specialist. Students investigate the world around them, become observers of natural phenomena, build and create solutions to engineering challenges, and are introduced to computational thinking and computer programming. The curriculum includes interdisciplinary content from the core sciences of life science, physical science, and earth science aligned with the content and practices in the Next Generation Science Standards.

There is a strong focus on creative problem-solving and the engineering design process. Over the course of their Lower School experience, students will design, carry out, and present experiments ranging from investigating the variables that affect the germination of seeds to the behavior of waves and sound. They will learn about alternative energy and then design, build, and test wind turbines. They will also study and observe earth surface processes, learn about the Mississippi River watershed, and design a Rube Goldberg machine. Students will learn the basics of computational thinking and computer programming through block-based programs such as Scratch and Wonder, and program small robots including BeeBots, Dash and Dot, and KIBOS.

SOCIAL STUDIES

Social studies units deepen literacy, develop research and writing skills, and often integrate science, music, art, and technology skills and concepts. Units foster skills in critical thinking, gathering and organizing information, analyzing cause and effect, and expository reading. Students are introduced to geography, basic economic principles, civics and government, history, and cultural studies. Kindergarten students learn about themselves, their classroom community, their family, and their role in and effects on the local and global community. Social studies in Grades 1 and 2 focuses on individuals and groups that have an impact on their

Continued next page

LOWER SCHOOL | K-5

SOCIAL STUDIES. CONTINUED

communities. Students are introduced to basic economic principles, concepts in geography, citizens' rights and responsibilities, and investigate the culture and lives of children in Minnesota and in other parts of the world. In Grades 3 and 4 students complete interdisciplinary research projects and then showcase their presentation skills as well as their understanding of topics such as U.S. geography, economics, immigration, and Civics. Grade 5 students explore the geography of North America and the cultures of Native American nations before contact with Europeans.

SPANISH

Lower School Spanish classes emphasize creative and interactive games, songs, stories, skits, puppet shows, movements, and conversations to help students develop listening, speaking, reading, and writing skills. The curriculum offers interdisciplinary integration with homeroom content area units and an understanding of Spanish-speaking cultures around the world.

◆ ***By the end of Grade 5, students have completed the first half of a beginning Middle School Spanish course. Typically this puts students on track to complete Spanish II by the end of Middle School, entering Spanish III when they move to the Upper School.***

COMPUTER SCIENCE AND ENGINEERING

Students in every grade have at least one unit each year in their science classes in which they explore computer science, robotics and/or engineering at a developmentally-appropriate level. This initiative involves three strands of skill development: computers and devices as learning tools; computer science and engineering skills; and Maker education where students utilize the Makerspace for design, construction, and special projects. Together, these three strands give students the opportunity to explore new ways of thinking that can also be applied to the academic subjects they study in their homeroom and with the specialists.

ART

In the Lower School, art is a vibrant, creative, and essential part of day-to-day life. Students participate in formal art classes taught by specialist teachers twice per six-day rotation. In art classes, they explore and express themselves through many media and styles. Student work is prominently exhibited throughout the school.

MUSIC AND MOVEMENT

Students attend music and movement classes twice per six-day rotation, and are taught by teachers trained in the Orff Schulwerk approach. Instruction in singing, movement, instruments, and speech guides students through exploration, improvisation, and composition. Students performing on stage is an important part of the music experience in the Lower School.

◆ ***When students move to the Middle School, they continue their music coursework in choir, band, or orchestra.***

HEALTH AND WELLNESS

Lower School students benefit from an intentional culture and integrated curriculum promoting healthy bodies, healthy minds, and healthy relationships. Lessons on topics such as human anatomy, families, puberty, gender, human reproduction, friendships, stress, and consent are presented across the curriculum in age-appropriate ways.

Students take Physical Education three times per six-day rotation. Teachers engage, instruct, and encourage each student while students build strong bodies, athletic skills and teamwork. After-school Sports Clinics begin in Grade 3 and focus on skill development, introducing team concepts, and having fun.

TECHNOLOGY TOOLS

Technology is integrated into academic subject areas and includes an emphasis on creativity and innovation. All students in Grades K-5 are assigned individual iPads for school use. There are also mobile labs of laptops which students may use as needed to achieve particular learning objectives or enhance specific projects. Students use technology to collaborate with peers, learn digital citizenship, and create subject-related content.

Continued next page

MINIS AND ASSEMBLY

Minis: Students in Grades 3-5 participate in elective classes known as “Minis,” taught by Lower School teachers and specialists. Minis offer students an opportunity to learn new skills outside the classroom and collaborate with different students and adults in the community over the course of 6-8 weeks each session. Minis offered in recent years include bird watching, kindness club, cribbage, group painting, readers’ theater, extra library time, trivia and card games, sporting writing, “The Art of Science/The Science of Art,” drama, and yarn crafts.

Assembly: All-school assemblies are held at the beginning and end of each week. Assemblies bring together all Lower School students, faculty, staff, and often parents to share memorable moments and showcase learning. Students sing, perform, and celebrate accomplishments as a group. Assemblies are led by students in Grade 5 who serve as ushers, stage and sound crew members, and emcees. As a culmination of the Lower School experience, each Grade 5 student leads an assembly as the emcee. Each student is mentored by a Grade 5 teacher to prepare for their “emcee day,” and these are much-anticipated community events.

BEFORE/AFTER-SCHOOL PROGRAM

Before School Care: Morning care is offered each weekday morning free of charge to all Lower School students. Every morning the Adventure Kids (AK) program runs from 7 a.m. to the start of school; on Wednesdays, when classes begin at 8:45 a.m., students may attend AK from 7 to 8:30 a.m. Before-school care is supervised by staff members who are committed to providing a fun, caring, and safe setting for students.

After School Care: The after-school AK program is held each school day from the end of classes until 6 p.m. and is staffed by the same caring, skilled staff as the morning AK program. Less structured than the regular school day, the after-school AK program offers a variety of mixed-age group activities, snack time, and quiet space for independent reading, games, and homework. Outdoor play is encouraged for all children throughout the seasons, including sledding and ice skating on the school’s playground ice rink. There is a fee for the after-school AK program; please inquire about rates.

Full-Day Activity Program: On many days when Lower School classes are not in session, such as Parent Conference or Faculty Professional Days, SPA offers fee-based, full-day care open to all Lower School students. The full-day program features field trips, outdoor play, craft projects, and other activities. The program is not in session on holidays or during school vacations.

MIDDLE SCHOOL | 6-8

CURRICULUM OVERVIEW

The Middle School curriculum emphasizes wide-ranging exploration and skill development in specific disciplines, taught by teachers who understand and genuinely care for students at this age. Organization and accountability are emphasized, and students learn to take responsibility for managing their work. Block scheduling allows students to investigate deeply and to absorb concepts in each discipline. Students work collaboratively with each other, and teachers are able to design differentiated strategies to meet the needs of individuals and groups. Technology is a critical component of the Middle School, with a 1:1 laptop program integrated into all disciplines. Instruction about appropriate use and online safety is incorporated throughout subject areas at various points during the year.

Based on the *Developmental Designs for Middle School* approach, community norms, strong student/teacher relationships, and responsibility to the group are principal features of the Middle School program. Advisory groups of 10-12 students and one faculty member meet every morning and two to three additional times per week, allowing students to interact socially under the guidance of an adult. Advisors oversee their advisees' school experience: they advocate for students, facilitate student-teacher meetings, explore how students learn best, and help students set and meet academic goals in each discipline.

By the time they enter the Upper School, Middle School students are prepared academically for the challenges of advanced study. They have learned to manage their time, make good choices, and advocate for themselves and their ideas.

A WEEK IN GRADE 6

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
8:00-8:15	ADVISORY CHECK-IN					
8:15-9:35	SCIENCE	P.E./COMPASS ROTATION ART/THEATER/ COMPUTER SCIENCE ROTATION	SOCIAL STUDIES	ENGLISH	MATH	WORLD LANGUAGE
9:35-10:00	SNACK / RECESS					
10:00-11:20	SOCIAL STUDIES	ENGLISH	MATH	WORLD LANGUAGE	SCIENCE	P.E./COMPASS ROTATION ART/THEATER/ COMPUTER SCIENCE ROTATION
11:20-11:55	X-PERIOD					
11:55-12:25	LUNCH/MUSIC					
12:25-12:55	MUSIC/LUNCH					
12:55-2:15	MATH	WORLD LANGUAGE	SCIENCE	P.E./COMPASS ROTATION ART/THEATER/ COMPUTER SCIENCE ROTATION	SOCIAL STUDIES	ENGLISH
2:15-3:00	QUIET STUDY					

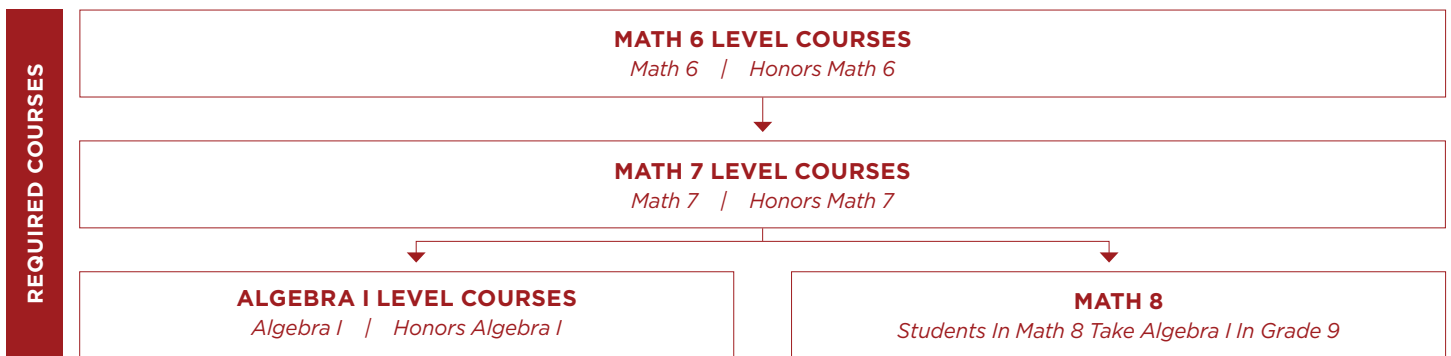
ENGLISH

Middle School English features a workshop model in which students become independent, passionate, skilled, and critical readers and writers. Reading choice, depth, comprehension, and engagement are valued every step of the way. The workshop model allows students focused, regular class time to build their writing and analytical skills while working collaboratively through peer-review, one-on-one teacher conferences, whole-group mini lessons, and frequent discussions of shared mentor texts. Grammar instruction is both geared to the whole class and individualized. The Middle School's English curriculum supports students in creating high expectations for themselves as they set their own goals and are guided toward authentic independence, curiosity, and awareness as readers, writers, and citizens.

MATHEMATICS

Middle School mathematics courses emphasize the nature of mathematical thought as well as the development of facility with the applications of mathematics. SPA's math program emphasizes the "why" behind the "how"—students explore, discover and make sense of concepts; they investigate the significance of concepts in addition to using them to solve problems. In Grades 6 and 7, students solidify their understanding of elementary mathematics and build their pre-algebra skills. In Grade 8, students have the option to take an Algebra I course or complete a third year of Prealgebra in Math 8 in preparation for Algebra I in Grade 9.

◆ *New students may take a math placement test to determine course placement.*



SCIENCE

Middle School students experience an iterative, trial-and-error process in their roles as developing scientists, engineers, and computer programmers.

In Grade 6, students take an integrated course which ties together topics in geology, biology, and physical science. Throughout the year, students learn laboratory skills and practice observing, recording, analyzing, and reporting data. In Science 7, the overarching theme is environmental science, with a focus on Minnesota ecology. Earth science, life science, and physical science is grounded in the environment surrounding St. Paul, with an emphasis on data analysis, modeling, application, and problem-solving.

The Grade 8 science course offers an introduction to a wide range of physical science concepts. The curriculum immerses students in the skills and practices of being a scientist and engineer through daily lab work and communicating their results in writing. The first half of the course culminates in an investigative "sludge" project where students employ their lab procedures and deductive reasoning to identify a range of mystery substances. In the second half of the year, students study atomic structure, the periodic table, electricity, and electromagnetism, concluding the year with an electronics-focused engineering project.

SOCIAL STUDIES

The Middle School social studies program encourages appreciation of people from different periods and cultures while developing analytical research, critical reading, discussion, and writing skills. In Grade 6, students study contemporary and historical Minnesota from its earliest inhabitants to its most recent immigrants. In Grade 7, students explore sustainability and civic engagement, including a comprehensive, interdisciplinary unit on water issues. In Grade 8, students explore 20th-century U.S. history and contemporary political and social issues.

Continued next page

Students are taught to formulate and articulate their own interpretations of the material. They learn to work independently through major research projects in each grade and present their research to teachers, peers, and the community—another step in acquiring the public-speaking and communication skills that will serve them as they advance to the Upper School.

WORLD LANGUAGE

In Middle School, all students have the opportunity to start or to continue studying a language of their choice: Spanish, French, Chinese, or German. Middle School World Language study emphasizes communication, culture, and personal connections to language. Lessons focus on conversation, reading, listening, and writing. Students with prior language experience, including those moving up from the Lower School's Spanish program, are able to study a specific language at their appropriate level, based on a placement test and/or teacher recommendation. Students typically complete Level II in their chosen language by the end of Middle School, enabling them to enter Level III in the Upper School.

COMPUTER SCIENCE AND ENGINEERING

Middle School students take a Computer Science (CS) class every year. CS 6 is focused on physical computing; students use hardware and block-based programming to introduce computational thinking skills and coding syntax. Students explore how the concepts they learn can be applied across the Middle School curriculum. In CS 7, students transition to text-based collaborative Python programming to further build their programming and problem solving skills. CS 8 focuses on building an abstract understanding of computational constructs and computational thinking skills. Discussions about the ethics and applications of current technology are integrated across the computer science sequence.

◆ *Students who complete Computer Science 6, 7, and 8 are prepared for Upper School advanced computer science electives.*

VISUAL AND PERFORMING ARTS

Middle School students take drama, art, and music courses, and all may audition for three annual theater productions. The Grade 6 studio art course covers various media and techniques; Grade 7 studio art courses introduce two-dimensional art techniques and three-dimensional ceramics. In Grade 8, students take either art or drama and build on the content and skills learned in Grades 6 and 7.

Grade 6 drama class includes the fundamentals of acting, production and performance, and scriptwriting. Grades 7 and 8 build on this foundation and add improv, mime, movement, and directing. All Grade 6 students participate in choir or beginning instrumental classes; advanced instrumentalists in Grade 6 may audition to participate in advanced jazz band or orchestra. In Grades 7 and 8, students continue in choir or in the instrument and ensemble of their choice. There are two concert performances each year in the winter and spring.

HEALTH AND WELLNESS

Middle School Compass courses engage students in an interdisciplinary approach to health and wellness. The Grade 6 and 7 Compass courses are team-taught by the Learning Specialist and the MS Counselor. Students explore social skills, academic strategies, human relationships, healthy communication, identity development, and personal values. In Grade 8, Compass Seminars explore health-related topics such as substance use and abuse, stress management, nutrition, and sexuality.

Students take Physical Education two times per six-day rotation in Grades 6 and 7. The curriculum includes cooperative games, health/nutrition units, and sports. Emphasis in sports units will be placed on developing skills, form, and teamwork. In Grade 8, students take a one-trimester Grade 8 Physical Health and Wellness course which helps students develop personal fitness plans through exposure to weight training and cardio classes. Students also learn about nutrition, heart rate, physical health, and injury prevention.

TECHNOLOGY TOOLS

In Grade 6, each student is assigned a school-owned laptop for use in school and at home during the school year. This laptop is used across classes as an essential tool for content creation, research, organization, and collaboration. Necessary technology skills are developed in the context of academic classes where they are needed, often taught collaboratively by the content teacher and an integration specialist. Strategies encouraging responsible use of

Continued next page

technology, both personally and academically, are emphasized in all grades through Advisory and Compass courses. Students also use school laptops for a range of extra-curricular activities, such as Lego League, Lovelace Society, and the Middle School Yearbook.

◆ *By the end of Grade 8, students are prepared to transition from using school-owned technology to more independent use of personal technology in the Upper School.*

STUDENT VOICE AND COMMUNITY

In Middle School, students are becoming more independent and figuring out who they are as individuals. Spending time with peers doing activities they enjoy is an important part of this process, and the Middle School student life program reflects that.

Much of our student life programming takes place during the school day. The advisory program is where academic life and student life come together, and the work students do in advisories defines life and community in the Middle School. Our experiential learning opportunities are tied to the curriculum and some, like the week-long Grade 7 retreat to Camp Widjiwagan, are significant rites of passage. Middle School students have the opportunity to be a part of an Affinity Group and Special Interest Group along with a variety of clubs such as the Spartan Council, Student-Athlete Leaders, Environmental Club, and Chess Club. Students are encouraged to advocate for affinity spaces, special interest groups, and clubs if there is an interest for one at school.

The vast majority of Middle School students—almost 97%—participate in one or more of our interscholastic athletic teams, and many students also take advantage of the Private Music Lesson program that offers individualized instruction at the Randolph Campus before or after school. Additional programming after school includes three theatrical productions, Lego League, and a supervised After School program offering care until 6 p.m. on school days.

UPPER SCHOOL | 9-12

CURRICULUM OVERVIEW

The Upper School offers a challenging and innovative college preparatory program that emphasizes discussion-based learning. The intellectual community is characterized by close student-faculty and peer relationships that foster advanced inquiry, lively discussion around seminar tables, and deep engagement with ideas. Students are energetic and informed participants in discussions, nuanced and accountable in their analysis, and articulate in their critique and defense of ideas. The program culminates in seminars that use college-level texts and require substantial independent work.

◆ SPA graduates are thoroughly prepared to excel and lead at the most demanding colleges and universities. While SPA has chosen not to offer designated AP (Advanced Placement) classes, our courses are designed to go well beyond the prescribed AP curriculum in depth and complexity. When SPA students elect to take AP exams, they are very successful: more than 2/3 of students who take an AP exam earn a score of 4 or 5, and more than 90 percent earn a score of 3 or above.

A WEEK IN GRADE 9

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6
8:00-8:15	ADVISORY					
8:15-9:30	HONORS ALGEBRA II	ENGLISH 9	STUDY HALL	COMPUTER SCIENCE	DEBATE	SPANISH III
9:30-10:00	TUTORIAL					
10:00-11:15	STUDY HALL	COMPUTER SCIENCE	DEBATE	SPANISH III	HONORS ALGEBRA II	ENGLISH 9
11:15-11:55	LUNCH					
11:55-1:10	WORLD HISTORY I	PHYSICS 9	WORLD HISTORY I	PHYSICS 9	WORLD HISTORY I	PHYSICS 9
1:10-1:45	X PERIOD: ASSEMBLIES, CLUBS, ADVISORY, CLASS MEETINGS					
1:45-3:00	DEBATE	SPANISH III	HONORS ALGEBRA II	ENGLISH 9	STUDY HALL	COMPUTER SCIENCE

ENGLISH

In the Upper School English program, students actively engage with literary works, explore both content and form, and acquire sophisticated skills in analysis, writing, and public speaking. In English 9 and 10, students build strong critical reading, expository and creative writing, and assertive yet generous discussion skills. English electives in Grades 11 and 12 are semester-long courses focusing on topics in literature, analysis, and creative writing. Students apply critical lenses, develop literary awareness and appreciation, and demonstrate sophisticated expression of ideas in writing and in discussion. Reading lists feature a diverse array of works. In addition to robust Writing Seminars and Creative Writing Workshops, the Upper School electives include Speculative Fiction, Literature and the Environment, Literature of Black Joy, Transnational Literature, Classics in Society, Literature of the Asian Diaspora, Literature of Migration, Shakespeare and the Modern World, Speech, and Literature of Monstrosity. Beyond English department offerings, popular and award-winning programs in debate, journalism, and theater encourage students to deepen skills in performance and print.

◆ *All Grade 11 and 12 English electives may be used in preparation for the English Composition AP exam.*

MATHEMATICS

Upper School math courses emphasize the nature of mathematical thought as well as the development of facility with the applications of mathematics. Various levels (honors, standard, and fundamentals) of required courses offer each student the best fit in terms of pace, depth, and level of abstraction. Students may seek departmental approval to re-place in levels as their time in the Upper School progresses. The chart below provides an overview of both required and elective course offerings.

◆ *College-level calculus is offered in a three-semester sequence (A, B, and C) and covers a college-level Calculus course which prepares students for the AP Calculus AB or BC exams. Advanced Probability and Statistics I/II prepares students for the AP Statistics exam.*

REQUIRED COURSES	ALGEBRA I HONORS ALGEBRA I <i>May be completed in Middle School</i>			
	HONORS ALGEBRA II ALGEBRA II ALGEBRA II FUNDAMENTALS <i>Prerequisite Algebra I</i>			
	HONORS GEOMETRY GEOMETRY GEOMETRY FUNDAMENTALS <i>Prerequisite Algebra I</i>			
	HONORS PRECALCULUS PRECALCULUS <i>Prerequisite Algebra II and Geometry</i>		OR	PROB & STATS I/II <i>Prerequisite Algebra II</i>
ELECTIVE COURSES	CALCULUS A/B <i>Prerequisite Precalculus</i>	CALCULUS I/II <i>Prerequisite Precalculus</i>	ADV PROB & STAT I/II <i>Prerequisite Precalculus</i>	DATA SCIENCE <i>Prerequisite Precalculus</i>
	CALCULUS C <i>Prerequisite Calc B</i>	ADV MATH TOPICS <i>Prerequisite Calc A/B</i>	TOPICS IN DATA SCIENCE <i>Prerequisite Data Science or Adv Prob & Stats I</i>	

SCIENCE

All courses are laboratory based. The Science core curriculum requires a year in each lab science, starting with Physics and moving to Biology and Chemistry. Physics 9 incorporates research-based approaches that emphasize collaboration, discussion, creativity, and problem-solving. Engineering design and design thinking projects are integrated into the Physics 9 curriculum. Grade 10 (Biology or Honors Biology) progresses from evolution to physiology through ecology, molecular biology, biotechnology, and genetics. Grade 11 (Chemistry or Honors Chemistry) course provides a

Continued next page

SCIENCE. CONTINUED

comprehensive introduction to topics in chemistry with a strong focus on collaboration, including discussions, frequent lab work, demonstrations, and group problem solving. Honors-level placements are done by the Science Department.

Students can select from a broad range of second-level and interdisciplinary science electives for their junior and senior years including Environmental Science, Genetics, Space Science, Advanced Mechanics (offered with and without Calculus), Forensic Science, Advanced Biology, Advanced Chemistry, Relativity and Quantum Physics, Organic Chemistry, Electricity and Magnetism, and Neuroscience.

Juniors and seniors may also apply for the Advanced Science Research elective in which they pursue independent research in various scientific fields. This capstone course builds upon current science skills, including lab technique, scientific writing, and formal presentation. Students enter their research in local and national science competitions.

◆ ***Honors Biology and Chemistry, in combination with a third semester of Advanced Biology and Chemistry, provide preparation for the AP exams in those content areas.***

HISTORY

In Upper School history courses, students gain historical perspectives, develop critical thinking skills, and refine discussion strategies. All students take a two-year world history sequence in Grades 9 and 10. Topics include classical empires, world religions, the post-classical world, revolutions, industrialization, globalization through colonialism and in the post-colonial world. World History II culminates with a formal history research process and paper.

In Grade 11, students complete a United States History course that includes a significant research component and work with various primary documents, scholarly secondary sources, and college-level texts.

Grade 12 electives include Economics, History of Law, History of Medicine, Israel & Palestine, Social Movements in US History, Government and Citizenship, History of Thought, US Foreign Policy Since World War II, Global Issues, History of Refugee Communities, World Religions, Gender in the Americas, History of Race, and Advanced Historical Research.

◆ ***Courses in US and World History may support a student's preparation for AP exams in these subjects.***

WORLD LANGUAGE

The Upper School offers Beginning through Advanced courses in Spanish, Chinese, French, and German. Students may enroll in more than one World Language. Throughout the world language program, students are exposed to increasingly complex themes and develop their proficiency in alignment with the American Council on the Teaching of Foreign Language standards. As they progress, students build cultural awareness and skills in listening, reading, writing, and speaking. In upper levels, substantive units on social, cultural, and political issues are central to our courses. After completing Level IV of a language, students often elect to take Advanced Language Seminars, which explore topics at an advanced level entirely in the target language in a seminar format.

◆ ***Students who advance to the Advanced Language courses are typically prepared to take Advanced Placement tests.***

COMPUTER SCIENCE AND ENGINEERING

Computer Science and Engineering electives are enhanced through access to design lab spaces where students can prototype projects. Students who have completed the Middle School computer science courses enter the Upper School prepared for all CS electives; all other students begin by taking Programming and Problem Solving. Elective computer science courses include two AP-aligned courses, numerous intermediate and advanced topic courses, and robotics. Robotics students use programming skills and engineering strategies to design and fabricate robots. Students who take this course in the fall semester are also members of the school's Robotics team, which competes in the First Technology Challenge. The Engineering curriculum begins in Grade 10, after the completion of Physics 9, with the introductory Principles of Engineering course. Advanced engineering electives focus on a single area or type of engineering such as Aerospace, Product, or Electrical engineering. Courses in computer science and engineering are enhanced through access to design lab spaces where students can prototype projects.

VISUAL AND PERFORMING ARTS

All students are required to take at least three semesters of the arts during their time in the Upper School, choosing among visual arts classes, musical ensembles, or theater courses. Ensembles include Summit Singers, Academy Chorale, Academy Symphony, Honors Sinfonia, and Upper School Jazz Band, all of which produce two performances every year. Approximately half of the Upper School student body performs in the fall Pops Concert, which is a highlight of the year for students, faculty, and families. Visual arts courses emphasize personal expression through drawing, painting, sculpture, ceramics, photography, and video arts. After introductory courses are completed, a variety of intermediate classes are available to students to reinforce and strengthen their skills in a medium of their choice. Students who excel in the Intermediate courses may elect to take Advanced Workshop courses, which focus on portfolio building and class critique. Theater courses focus on acting, directing, production, and design. Theater productions include a student-directed one act play series, a fall drama, and a spring musical.

HEALTH AND WELLNESS

In the Upper School, the Grade 9 Physical Health and Wellness course includes instruction in lifetime sports, supervised training on fitness equipment, and certification in CPR. Personal Health and Wellness education continues year round with the Grade 10 Seminar Program. This course provides information pertaining to mental, chemical, and sexual health, and fosters a supportive environment in which to explore, develop, and reflect on personal values and choices as well as skills in executive functioning and study skills.

TECHNOLOGY TOOLS

At the start of their Upper School experience, families purchase a laptop through SPA to be used for research, organization, collaboration, and content production in all disciplines. All Grade 9 and new Grades 10, 11, and 12 students participate in a technology orientation where they are introduced to their new devices and SPA's technology expectations. While families do purchase and own the laptops, SPA services and maintains the hardware and software during the student's time in the Upper School.

COMMUNITY

Within and beyond the classroom, the Upper School program helps students develop their unique voice within a close network of adult and student relationships. Students have daily opportunities to be in community through advisory, clubs, affinity groups and special interest groups, elected and selected committees, grade-level meetings, and all school assemblies. Students on the staff of *The Rubicon*, SPA's award-winning student newspaper, and the nationally-ranked debate team employ the verbal and written skills developed in the classrooms. A thriving program of student-led clubs, leadership opportunities, and affinity and special interest groups create a strong sense of community.

Capstone projects mark the senior year. Senior Speeches, written and delivered by each senior, are important community events affording each student the chance to share his or her own insights with peers, faculty, staff, and parents. At the end of the senior year, each student also designs and implements a month-long Senior Project that combines a working internship with career exploration and service.

ACADEMIC PLANNING AND COLLEGE COUNSELING

The college counseling process at SPA is focused on building relationships with individual students throughout their time in the Upper School. Every student is assigned one of three full-time college counselors in Grade 10, and the college planning process begins with counselors getting to know their students and encouraging them to establish a strong academic foundation and cultivate personal interests well before thinking about specific colleges. College counselors help their advisees plan academic schedules and extracurricular activities, and provide emotional support and encouragement as students identify the areas of study and engagement that truly excite them.

By the time students enter their junior year, college counselors know their advisees well, and can provide personalized guidance as the college search begins in earnest. Counselors work closely with the student and the family to identify key college criteria based on the student's interests and personality, suggest colleges to research and visit, develop a testing plan, and review essays and applications. They are active in professional networks about college admission practice and policy in order to provide timely advice to students. Counselors also help students and parents understand financial aid and scholarship opportunities, and counsel seniors in making their final college choice.

The goal in the college counseling process is finding the college that is the best fit for each student. Ultimately, the college counseling process is designed to help students cultivate self-reflection, critical thinking, communication, self-advocacy, and decision-making skills—skills that will be vital for their success in college and in life.

REQUIREMENTS FOR GRADUATION

ENGLISH	Successful completion of four full years of English with at least one-half credit per semester: English 9, English 10, and four semester English courses (Grades 11-12).
VISUAL AND PERFORMING ARTS	Three-fourths credit (typically three semesters) of visual and performing arts completed in Grades 9-12.
HISTORY	Successful completion of World History I (Grade 9), World History II (Grade 10), and U.S. History (Grade 11).
WORLD LANGUAGE	Successful completion of level III of a world language or, by permission, level II of two languages. Enrollment in a language is required through Grade 10.
MATHEMATICS	Three credits of math including either a precalculus level course or Probability and Statistics I/II.
SCIENCE	Successful completion of three years of the following lab sciences, taken in sequence: Physics, Biology, Chemistry.
HEALTH/WELLNESS	Participation in Grade 9 Physical Health and Wellness class for one semester. Personal Health and Wellness education continues with the Grade 10 Seminar Program.
SENIOR YEAR	Successful completion of Senior Speech and Senior Project.