We admit qualified students of any race, color, disability, religious affiliation, national and ethnic origin, and sexual orientation to all rights, privileges, programs, and activities generally accorded or made available to students at our school. We do not discriminate in violation of any law or statute in the administration of our educational policies, admission policies, scholarship and financial aid programs, and athletics or other school-administered programs.
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Published in February 2017, this book includes course descriptions available at that time. To view the most recent version of this material, which may include additions, deletions, or corrections, visit www.sps.edu/courses.
A COMMITMENT TO LEARNING

The SPS academic program offers exceptional depth and breadth, giving students both a solid grounding in the fundamentals and the flexibility to pursue varied and enriching electives. The core curriculum includes challenging courses in humanities, mathematics, sciences, languages, religion, and the arts.

At St. Paul’s, students and their teachers work in collaboration – in discussion around Harkness tables, in laboratories, and in the field to investigate new and age-old questions. Through rigorous academic standards, students are encouraged to attain the highest level of scholarship and intellectual growth and development. Challenged by exceptional faculty, St. Paul’s School students prepare intensively toward success in college, university, and career.

The School offers an ambitious sciences curriculum, in which students implement the scientific process and content learned from their initial course in physics to the following study of chemistry and then biology. Science students next have the opportunity to study each of these foundation courses at an advanced level, as well as opportunities in astronomy, engineering, robotics, and artificial intelligence. Students encounter a carefully designed mathematics curriculum that allows them to progress through comprehensive content and trains them as keen analytical thinkers. In our integrated, interdisciplinary humanities curriculum, students learn to think critically and to connect important notions in literature, history, philosophy, and religious studies.

St. Paul’s School goes beyond the traditional language learning structure and offers courses in seven languages, as part of the SPS commitment to a global education. The School also recognizes that intense and regular involvement in the arts is fundamental to creating a well-educated person. A performance-based arts program ensures that students at all levels in music, dance, theatre, and the fine arts can develop and grow.

St. Paul’s School requires participation in four other areas of community life to complement the academic endeavors of our students: living in community, community outreach, athletics, and Chapel. The School’s commitment to education and caring for the whole person, as reflected in this all-encompassing view of education, supports and nurtures the intellectual, spiritual, physical, and emotional development of our students. The School’s Advanced Studies, Honors, and Independent Study Programs provide additional opportunities for students to dive deeper into subjects they find most compelling. Teachers at SPS come from diverse backgrounds and bring with them a variety of world perspectives, educational excellence, and rich life experiences. Our faculty members live among the students in our fully residential community, making it easy for them to forge lifelong bonds with students. Teaching goes beyond the classroom, as faculty members serve as advisers, coaches, mentors, and friends.

GRADUATION REQUIREMENTS

The SPS diploma is awarded to the student who
1. enrolls in a minimum of 5 credits per term;  
2. completes at least 25 credits during the Fifth Form and Sixth Form years and has missed no more than one term during his/her tenure at the School; 
3. has no more than one Unsatisfactory final grade for any year-long course or the equivalent; 
4. satisfies the requirements listed within one year of their anticipated graduation year at time of matriculation.

Credit Requirements: Arts
1. Matriculate in Third Form: 3 credits in a single discipline
2. Matriculate in Fourth Form: 3 credits in a single discipline
3. Matriculate in Fifth Form: 3 credits in a single discipline

Credit Requirements: Humanities
1. Matriculate in Third Form: 19 credits; sequence of Humanities III (6 credits), Humanities IV (6 credits), Humanities V (6 credits). Then one term course in religious studies, Encounters (1 credit)
2. Matriculate in Fourth Form: 13 credits; sequence of Humanities IV (6 credits), Humanities V (6 credits). Then one term course in religious studies, Encounters (1 credit)
3. Matriculate in Fifth Form: 7 credits; Humanities V (6 credits). Then one term course in religious studies, Encounters (1 credit)

Credit Requirements: Languages
1. Matriculate in Third Form: 9 credits; three-year sequence in the same language
2. Matriculate in Fourth Form: 6 credits; two-year sequence in the same language
3. Matriculate in Fifth Form: 3 credits
Credit Requirements: Mathematics
1. Matriculate in Third Form: 9 credits or through Precalculus (minimum of 3 credits earned in residence at St. Paul’s School)
2. Matriculate in Fourth Form: 6 credits or through Precalculus (minimum of 3 credits earned in residence at St. Paul’s School)
3. Matriculate in Fifth Form: 3 credits earned in residence at St. Paul’s School

Credit Requirements: Sciences
1. Matriculate in Third Form: 9 credits; recommended series of Physics First (3 credits), Chemistry (3 credits), Biology (3 credits)
2. Matriculate in Fourth Form: 6 credits; recommended 6 credits in two of the following: Physics (3 credits), Chemistry (3 credits), Biology (3 credits)
3. Matriculate in Fifth Form: 3 credits

Non-Credit Requirements: Athletics
1. Matriculate in Third Form: 8 terms; Third Form year (3 terms), Fourth Form year (3 terms), then 2 additional terms, one of which must be taken in the Fifth Form year; swim test*
2. Matriculate in Fourth Form: 5 terms; Fourth Form year (3 terms), then 2 additional terms, one of which must be taken in the Fifth Form year; swim test*
3. Matriculate in Fifth Form: 2 terms; Fifth Form year (at least 1 term); additional 1 term in the Fifth Form year or the Sixth Form year; swim test*
* New students required to pass a swim test within 2 years of matriculation

Non-Credit Requirements: Community Outreach
1. Matriculate in Third Form: 40 hours, 10 hours required each year in residence
2. Matriculate in Fourth Form: 30 hours, 10 hours required each year in residence
3. Matriculate in Fifth Form: 20 hours, 10 hours required each year in residence

Non-Credit Requirements: Living in Community
1. Matriculate in Third Form: 90 hours
2. Matriculate in Fourth Form: 60 hours
3. Matriculate in Fifth Form: 30 hours

Courses are assigned 1 credit per term, with the exception that Humanities III, Humanities IV, and Humanities V are each assigned 2 credits per term.

LIVING IN COMMUNITY
As a residential community, St. Paul’s School is committed to the development of the whole person. In order to support students’ emerging social and emotional competencies and to encourage personal reflection and commitment to the world around us, our Living in Community program provides opportunities for exploration.

THIRD FORM COURSE
(Full year, required)
This course meets once a week. The focus is on students’ introduction and transition to living in our residential community. Topics include, but are not limited to, self-awareness, respect for self and others, communication and compromise, healthy choices, and appropriate use of technology. This course encourages students to develop a balanced approach to their experience at St. Paul’s.

FOURTH FORM COURSE
(One term or equivalent, required)
This course meets three times a week. Fourth Formers discuss the myriad topics that influence their growth as individuals. Topics include, but are not limited to, interpersonal relationships, diversity in all its forms, sexuality, and substance use. We explore these issues in many ways, which includes grappling with contemporary issues in an effort to understand how to live in community while making individual choices. Our goal is to provide accurate information in a trusting environment as our students develop their own perspective and identity.

FIFTH AND SIXTH FORM SEMINAR
(Fall, Winter, and Spring Term, required)
This course meets five times a term. The seminar provides an intensive training in bystander intervention and human sexuality.

COMMUNITY OUTREACH PROGRAM
The Community Outreach Program provides students with an opportunity to learn about themselves and others, while building relationships within SPS and the local community. Service outreach allows students to use their talents to become worldly and selfless leaders. The 10-hour yearly Community Outreach requirement strives to inculcate a habit of service that extends beyond a student’s time at St. Paul’s School. The goal of this program is to strengthen a foundation for good citizenship and foster active moral engagement within society.

The Program weaves service into students’ lives as they:
• Engage in service projects as members of interscholastic sports teams
• Enroll in, and study, service-learning courses offered by each department
THE OFF-CAMPUS EXPERIENCE

The off-campus experience is defined by a student’s significant exposure to a culture different from his or her own, as well as one or more of the following conditions:

- Specific connection to the student’s on-campus experience or program of study.
- Comprehensive immersion into a language different from his or her primary language.
- Significant participation in service-learning activity.
- Understanding of a major global issue (e.g., environmental stewardship, sustainable development, globalization, poverty, healthcare, education, social justice, inclusivity and governance).
- Experiential leadership opportunity.

PROGRAM OFFERINGS (may vary)

- School Year Abroad in China, France, Italy, and Spain
- Term language exchange in France, Germany, and Japan
- Short-term language/cultural program in France, Germany, and Greece
- Two-week Eton cultural exchange in England
- One-week service-learning programs in Atlanta, Washington D.C., Nicaragua

ADVANCED STUDIES

Sixth formers who fully exhaust all courses in a department, including electives, may pursue Advanced Studies in a particular discipline. Advanced Studies are available in the Arts, Languages, Mathematics, and Science Departments. Advanced Studies offer an opportunity for a student to pursue independent work under the supervision of a member of a faculty member. Students interested in pursuing Advanced Studies must be highly motivated, independent learners with excellent academic records. Students must petition a faculty member to serve as the adviser to their project, recognizing that not all faculty members will be able to take on this extra time commitment. As part of the application process, a student must have written approval from his or her adviser, the Advanced Studies adviser, and corresponding Department Head. All proposals for Advanced Studies are reviewed and voted on by the Dean of Studies and the five academic department heads.
St. Paul's School offers opportunities for students of all levels of athletic ability. By engaging in athletics, students develop key values such as teamwork, sportsmanship, personal excellence, courage, humility, and respect for others. All Third Formers must participate in the Athletic Program in each term through their Fourth Form year, either at the interscholastic or club (intramural) level. The Fitness offering is not an alternative for Third Formers. Students are required to participate in two more terms in their Fifth or Sixth Form years, at least one of which must be in the Fifth form year. A student can also receive athletic credit by being a member of the SPS Ballet Company. All new students are required to pass a swim test for graduation, completed within two years of matriculation. Free swim lessons are offered, and students may take the test as many times as necessary.

**HONORS PROGRAMS**

Inherently student-centered, experiential, and grounded in real-world experiences, the Honors Programs at St. Paul's School provide passionate students the opportunity to engage in sustained research and deep scholarship in a specific area of inquiry. Honors students must demonstrate independence, creative thinking, and the ability to collaborate at a high level for the duration of the program. Distinct from our Advanced Studies and Independent Study programs, Honors Programs demand that students draw upon multiple, traditional academic disciplines in the experience of real-world applications of their learning.

Prospective Honors students are identified by their teachers in their Fourth Form year and must commit to engaging in a series of prescribed classes per discipline, independent research, and experiential or travel programs in their field through their Fifth and Sixth Form years.

**INTERSCHOLASTIC OFFERINGS**

**Fall Term:**
- Cross Country (boys/girls)
- Field Hockey (girls)
- Football (boys)

**Winter Term:**
- Alpine (boys/girls)
- Basketball (boys/girls)
- Ice Hockey (boys/girls)

**Spring Term:**
- Baseball (boys)
- Crew (boys/girls)
- Lacrosse (boys/girls)

**Full year commitment:** SPS Ballet Company (boys/girls)

**CLUB, INSTRUCTIONAL, AND NON-INTERSCHOLASTIC OFFERINGS (BOYS/GIRLS)**

**Fall Term:**
- Farm Team
- Tennis

**Winter Term:**
- Alpine/Snowboarding
- Ice Hockey

**Spring Term:**
- Crew
- Squash

**All Terms:**
- Fitness

**INDEPENDENT STUDY PROGRAM**

Students may apply for an Independent Study Project (ISP) for their Sixth Form year. An ISP is a term- to year-long project, in which a student is able to explore an interest in depth. Independent study projects may include activities ranging from internships, terms abroad, and movie production, to writing a book of short stories, but all emphasize the experience and understanding of one's self gained from working in an independent setting. Proposals are submitted to a committee of faculty and students, and the approved projects are overseen by a faculty adviser of the student's choosing.

**ATHLETICS**
The arts are passionate. Initially solitary and ultimately public, the arts involve the whole person and address the whole community. Recognizing that a regular exposure to the arts has always had a powerful and liberating influence in the world, the Fine Arts, Theatre, Dance, and Music Programs offer students a variety of studio and performance-based classes, courses in the history and theory of the arts, and frequent exposure to a diverse group of visiting artists.

Courses that fulfill the initial year graduation requirement in the Arts – and serve as prerequisites to almost all other courses in their respective programs – include:

- In Fine Arts – A combination of three term-long courses
- In Theatre – Foundations in Theatre
- In Dance – Introduction to Dance
- In Music – Applied Music 1-4

All students are strongly encouraged to continue to study in the Arts throughout their St. Paul's career.

**ARTS FEE: $145 PER TERM**

Students in *Photography: Color or Advanced Photography* courses pay additional fees for development of color slides. Students involved in glass blowing will pay additional fees based on the scope of their chosen projects.

The Arts Fee will not be charged to students enrolled in *Art History Seminars, Introduction to Music Notation,* and *Music Theory.*

Students in *Non-Credit Music* will pay a Lesson Fee in place of the Arts Fee:

- Full year, $1,950
- Winter and Spring Terms, $1,300
- Spring Term, $650

Enrollment in arts courses is subject to permission of the program head and/or the department head.

**ARTS: DANCE**

St. Paul's School provides students with the opportunity to combine a rigorous academic education with the finest dance training in a dedicated dance facility. The St. Paul's School Dance Program fosters a fun, nurturing, and artistic learning environment and prepares its students to dance at the pre-professional and college level by teaching classical ballet, modern dance, anatomical theory, and performance. The St. Paul's School faculty is committed to the idea that studying dance is a process and that dancers are always evolving and growing. Our goal is to train technically proficient dancers with a sound work ethic, promote artistic growth, and support dancers of all backgrounds.

Serious dancers may audition for the St. Paul's School Ballet Company (SPSBC), a year-round program that can be substituted for athletic participation at the varsity level. SPSBC dancers work one-on-one with faculty and guest teachers and choreographers, rehearsing daily throughout the academic calendar, and performing four different programs per school year. Its repertory includes classics as well as contemporary works. Guest teachers and choreographers have included members of internationally recognized companies such as Paul Taylor Dance Company, Merce Cunningham Dance Company, Twyla Tharp, New York City Ballet, Batsheva Dance Company, Miami City Ballet, Parsons Dance, Lar Lubovitch Dance Company and Trisha Brown Dance Company.

**DANCE COURSES**

**DANCE I**

Full year: 3 credits  
Fall, Winter, or Spring Term: 1 credit  
[100-level course]

This fun and fast-paced introductory studio-based course introduces students to a wide variety of dance styles and choreography, and is ideal for students with no or minimal dance experience. Students are introduced to ballet, modern, jazz, tap, and social dance, with a particular focus on developing creativity and self-esteem through movement-based learning. Classes stress the physical aspects of dance, including strength, flexibility, control, and stamina, while also focusing on musicality, rhythm, and the use of weight to help students begin to build a basic technical foundation in dance. Essential components of choreography are also introduced and students have the opportunity to create their own dances. The use of videos helps broaden students' knowledge of the art form and its history.
MOVEMENT FOR ATHLETES

Full year: 3 credits
Fall, Winter, or Spring Term: 1 credit
[100-level course]

This course is geared toward athletes looking to improve strength, flexibility, agility, body control, and core stability. With a focus on proper alignment, muscle balance, and injury prevention, this course draws upon several techniques including: core strengthening Pilates exercises, Gyrokinetics, Yoga, and Ballet to improve balance and coordination. Basic anatomy is introduced to develop an understanding of the function of each muscle group and how it pertains to movement.

BALLET II
Fall, Winter, or Spring Term: 1 credit
Prerequisite: Training in classical ballet and placement audition.

This course teaches classical ballet technique at the elementary level. Classes cover barre, centre practice, and the introduction and further study of pointe work. Students with prior dance training and permission from the Dance Director should enroll in Ballet II. Throughout the year, students receive training from visiting artists from professional companies in disciplines ranging from Gaga, Paul Taylor, Twyla Tharp, and Merce Cunningham.

BALLET III
Full Year: 3 credits

This course teaches classical ballet technique at the intermediate level. Classes cover barre, centre practice, and pointe work. Students develop artistry and classical technique, while working toward improving strength and flexibility. Students with a significant background in ballet, who are interested in continuing their training at an intensive level, will be placed in Ballet III by the Director of Dance. Throughout the year, students receive training from visiting artists from professional companies in disciplines ranging from Balanchine, Gaga, Paul Taylor, Twyla Tharp, and Merce Cunningham.

BALLET IV
Full Year: 3 credits

This course teaches classical ballet technique at the advanced level. Classes cover barre, centre practice, and pointe work at the advanced level. Students develop artistry and classical technique, while working toward improving strength and flexibility. Students with a significant background in ballet, who are interested in continuing their training at an intensive level, will be placed in Ballet IV by the Director of Dance. Membership in the SPS Ballet Company is a prerequisite for placement at this level. Throughout the year, students receive training from visiting artists from the professional companies in disciplines ranging from Balanchine, Gaga, Paul Taylor, Twyla Tharp, and Merce Cunningham.

ARTS: FINE ARTS

The Fine Arts Program is a studio-based program, with hands-on studio assignments supplemented by a broad introduction to art history, theory, criticism, and aesthetics, and with students expected to display their work as one outcome of each course. All students are offered extensive elective opportunities in one of three major areas: drawing, painting and printmaking; sculpture, glass, and ceramics; or photography and computer graphics. Advanced Portfolio courses are offered as culminating classes in each of those three major areas of study. The program also offers courses in architecture and art history, and students may also choose to study across a variety of studio arts disciplines. The Fine Arts Program supports the beginning, introductory student through those who wish to study in the studio arts in depth and throughout their St. Paul’s career.

A recommended course of study for those students wishing to explore drawing and painting in depth includes: Introduction to Drawing, Introduction to Painting, Advanced Drawing, Advanced Painting, and/or Advanced Painting Seminar, and/or Advanced Drawing Seminar, and/or Advanced Studies in Painting, and/or Advanced Studies in Drawing, and culminating in Advanced Portfolio: Drawing and Painting (Printmaking and the Art History Seminars are also recommended).

A recommended course of study for those wishing to explore 3-dimensional design in depth includes: Introduction to Ceramics, Advanced Ceramics, Introduction to Sculpture, Advanced Sculpture, Glass, and/or Advanced Ceramics Seminar, Advanced Studies in Sculpture, Advanced Studies in Ceramics, and culminating in Advanced Portfolio: Sculpture (Drawing and the Art History Seminars are also recommended).


Fine Arts students are also encouraged to study in multiple mediums and/or studio arts disciplines.
FINE ARTS COURSES

INTRODUCTION TO DRAWING
Fall, Winter, or Spring Term: 1 credit
Various drawing techniques and media are introduced in this course. Basic skills are developed through various subjects, including still life, landscapes, and the human figure. Emphasis is placed on learning to draw from direct observation. Materials used include pencil, ink, marker, pastels, charcoal, and Conté crayon.

ADVANCED DRAWING [1–2]
Fall, Winter, or Spring Term: 1 credit
Prerequisite: Successful completion of Introduction to Drawing.
This course builds on the basic techniques introduced in Introduction to Drawing and develops those skills via more extensive, conceptual works. Students develop a thematic series of works around one or two subjects, including landscape, portraiture, still life, or abstraction. Assignments are more independent in nature and individualized to the requirements of each student. Studio work is informed by art history and master artist references. Students may repeat this course up to two terms, provided that they have earned a minimum of an Honors grade in all previous drawing courses.

ADVANCED DRAWING SEMINAR [1–3]
Fall, Winter, or Spring Term: 1 credit
Prerequisite: Successful completion of Introduction to Drawing and Advanced Drawing.
[Available only to Fifth and Sixth Formers.]
An advanced-level drawing course for highly motivated drawing students that builds upon basic drawing and compositional skills, emphasizing further and more extensive work with a particular drawing medium, including graphite, charcoal, pastel, pen and ink, Conté, or other drawing media. Students propose to develop a particular conceptual idea over a series of works. Subjects include landscape, portraiture, still life, illustration, and abstraction. Students may repeat this course up to three terms, provided that they have earned a minimum of an Honors grade in all previous drawing courses.

INTRODUCTION TO PAINTING
Fall, Winter, or Spring Term: 1 credit
Prerequisite: Introduction to Drawing recommended.
Students are introduced to basic techniques in watercolor, oil painting, and other painting media. Color theory, composition, and a variety of techniques are covered through projects, demonstrations, and discussions. Subjects include portraiture, still life, landscape, and abstract works.

ADVANCED PAINTING
Fall, Winter, or Spring Term: 1 credit
Prerequisite: Successful completion of Introduction to Painting.
This course builds on the basic techniques introduced in the Introduction to Painting course and develops those skills through a thematic series of works. Various landscape techniques and conceptual projects are introduced. Assignments are more independent in nature and individualized to the requirements of each student. Students may repeat this course up to two terms, provided that they have earned a minimum of an Honors grade in all previous painting courses.

ADVANCED PAINTING SEMINAR [1–3]
Fall, Winter, or Spring Term: 1 credit
Prerequisite: Successful completion of Introduction to Painting and Advanced Painting.
[Available only to Fifth and Sixth Formers.]
This advanced-level painting course for highly motivated painting students builds upon basic painting and compositional skills, emphasizing further and more extensive work with a particular painting medium, including watercolors, acrylics, oils, and/or encaustics. Students propose to develop a particular conceptual painting idea over a series of works. Subjects include landscape painting in “plein air,” portraiture, still life, and abstraction. Students may repeat this course up to three terms, provided that they have earned a minimum of an Honors grade in all previous painting courses.

PRINTMAKING [1–2]
Winter or Spring Term: 1 credit
Various printmaking methods and media are introduced in this course, including both hand-printed and press-printed methods. Students develop technical and aesthetic skills through experimentation in relief printing, embossing, intaglio, and monotype. Students may repeat this course up to two terms, provided that they have earned a minimum of an Honors grade in all previous printmaking courses.

INTRODUCTION TO PHOTOGRAPHY
Fall, Winter, or Spring Term: 1 credit
An introductory photography course designed for those students with little or no previous photography experience, this course introduces students to a 35mm camera and to the traditional process for developing black-and-white film, as well as digital scanning of negatives and digital printing. The main objective is to teach students to see light rather than things and to make art using the photographic process. Students must have access to a fully manual 35mm camera. (Arrangements can be made with the photography instructor for borrowing cameras.) Each photography course is concerned with the aesthetics, history, and practice of this light-generated form of art. Except in rare instances, students begin with Introduction to Photography and move to either Black & White Photography or Photography: Color, although...
the sequence does not have to be in the same year; also available is Computer Graphics/Digital Imaging. Finally, with permission, students can enroll in Advanced Photography Seminar—they may take this course twice with a different individualized curriculum.

**BLACK & WHITE PHOTOGRAPHY**  
Fall, Winter, or Spring Term: 1 credit  
Prerequisite: Successful completion of Introduction to Photography.

Students further develop black-and-white photography concepts covered in Introduction to Photography. The Zone System, studio lighting, and other intermediate-level techniques are explored. Students should be highly motivated and have strong critical skills in all intermediate- and advanced-level photography courses. An emphasis is placed on portraiture and self-portraiture, and the exploration of gesture and meaning. Students must have access to a fully manual 35mm camera. (Arrangements can be made with the photography instructor for borrowing cameras.)

**PHOTOGRAPHY: COLOR**  
Fall, Winter, or Spring Term: 1 credit  
Prerequisite: Successful completion of Introduction to Photography.

Students continue to develop photographic vocabulary and vision while building upon intermediate-level black-and-white photography techniques. They are also introduced to computer colorization, color photography, color digital printing, and basic computer image manipulation. Emphasis will be placed on developing narratives using photographic imagery. Students must have access to a fully manual 35mm camera. (Arrangements can be made with the photography instructor for borrowing cameras.)

**COMPUTER GRAPHICS/ART WITH COMPUTERS**  
Fall, Winter, or Spring Term: 1 credit  

Students in this course learn to use scanning, drawing tablets, and various software to create art using computers. Creativity and experimentation is emphasized. Students output their work in a variety of digital media, including large archival inkjet prints. Computer Graphics students are strongly encouraged to continue with Computer Graphics/Web Design.

**COMPUTER GRAPHICS/DIGITAL IMAGING [1–2]**  
Fall, Winter, or Spring Term: 1 credit  
Prerequisite: Introduction to Photography for those wishing to pursue the photo-based curriculum.

This course teaches students advanced techniques in Photoshop that are used in art-making. Students in this course learn to use scanning, drawing tablets, and various software to create art with computers. Creativity and experimentation are emphasized. Students output their work in a variety of digital media, including large archival inkjet prints. Students who have successfully completed Introduction to Photography may choose to pursue a photo-based curriculum which focuses entirely on digital image-making, using digital cameras or a hybrid technique with traditional film and scanning. No wet darkroom techniques will be employed. Digital workflow, color management, and digital darkroom techniques will be explored in depth. Enhancement of images as well as combining images in a seamless, realistic way will be the goal. Students who intend to pursue this photo-based curriculum should have access to a 10-megapixel digital camera or a fully manual 35mm camera. (Arrangements can be made with the photography instructor for borrowing film cameras.) Students may take this course a second time with the curriculum they did not take the first time, or with the instructor’s permission, to do advanced work in either area.

**ADVANCED PHOTOGRAPHY SEMINAR [1–3]**  
Fall, Winter, or Spring Term: 1 credit  
Prerequisite: Successful completion of Black & White Photography and Photography: Color.

Highly motivated students continue to use the Zone System to explore advanced-level black-and-white and digital applications for photography as well as electronic flash and night photography, and other alternative techniques. Students are expected to work on a comprehensive portfolio throughout the term. Students may elect to take this course a second time, and would do so using a new individualized curriculum. Students must have access to a fully manual 35mm camera. (Arrangements can be made with the photography instructor for borrowing cameras.) Students may repeat this course up to three terms, provided that they have earned a minimum of an Honors grade in all previous photography courses.

**ARCHITECTURAL CONCEPTS**  
Fall Term: 1 credit  
[Available only to Fourth, Fifth, and Sixth Formers.]

Students are introduced to the language of architecture with respect to fundamental design, drafting, and architectural history. The course begins with the study of architectural elements translated into paper models. After a brief review of perspective drawing, students explore drafting through the design of small personal spaces and structures. Online sources are used to facilitate the historical research and image-gathering needed for each project.
ARCHITECTURAL DESIGN
Winter Term: 1 credit
[Available only to Fourth, Fifth, and Sixth Formers.]
Architectural Design is an introduction to the fundamentals of design ranging from architectural details to larger, more complex structures. The course begins with an exploration of three-dimensional form through paper modeling. The course also studies structural dynamics culminating in a class-wide design build project. Students complete the course with balsa wood modeling based on architectural detail and historical design. Concepts covered include architectural analysis, creation and historic study of architectural styles, communication skills through a design client/architect process, and the translation of open concepts to visual ideas. Completion of Architectural Concepts is not required, but strongly encouraged.

INTRODUCTION TO SCULPTURE
Fall, Winter, or Spring Term: 1 credit
Introduction to 3-Dimensional Art is a beginning course for students who want to explore and work in sculpture. Students will be introduced to 3-dimensional design concepts, sculptural techniques, and art history. Emphasis is placed on skill development, experimentation, creative thinking, self-expression, and quality craftsmanship. Students will learn to work with clay, plaster, wire, and various other materials.

ADVANCED SCULPTURE [1–2]
Fall, Winter, or Spring Term: 1 credit
Prerequisite: Successful completion of Introduction to 3-Dimensional Art.
Advanced 3-Dimensional Art is designed to develop sculpture skills learned in Introduction to 3D. New techniques, skills, and processes, such as mold-making, carving, and woodworking are explored. Materials include stone, clay, fibers and metal. Emphasis in Advanced 3D is placed on skill refinement, material exploration, self-expression, and high-quality craftsmanship. This course may be taken a second time.

GLASS
Winter Term: 1 credit
Glass will introduce the basic skills of stained glass construction and glass fusing. Historical and contemporary examples of stained glass are studied. Students will learn how to cut and grind glass, solder, and experiment with glass painting techniques. The course provides the opportunity for students to create windows and 3-dimensional objects using the copper foil technique. Emphasis will be on color theory, skill development, creative thinking, and self-expression.

ADVANCED GLASS
Spring Term: 1 credit
Prerequisite, Successful completion of Glass.
This course further explores glasswork techniques introduced in the beginning Glass course. Students will also employ advanced stained glass techniques such as leaded glasswork as well as other techniques, including fusing.

HOT GLASS
This course introduces the basics of manipulating hot glass through the use of a blowpipe and hand tools. Students learn how to gather glass from the furnace and shape it using hand tools at the glass blowing bench. Using heat, gravity, and centrifugal force, students create vessels such as tumblers, bowls, and vases. Students also are introduced to basic color applications and grinding and polishing techniques. Students study historical and contemporary examples of blown glass, as well as the artists involved with glass. Emphasis is given to developing hand skills, team work, creative thinking, self-expression, and shop safety.

ADVANCED HOT GLASS [1–2]
This course covers manipulating hot glass through the use of a blowpipe and hand tool, as well as a continuation of the study of historical and contemporary examples of blown glass and glass artists. Advanced students assist other students in the process of glass blowing. Advanced students develop and carry out specific assignments that meet their particular level of experience.

INTRODUCTION TO CERAMICS
Fall, Winter, or Spring Term: 1 credit
Through hand-built and wheel-thrown projects, students design and create various ceramics artworks ranging from utilitarian items to sculptural works. An emphasis is placed on the understanding of the fundamental aspects of 3-dimensional form, including volume, scale, shape, texture, and color to create original and expressive pieces.

ADVANCED CERAMICS [1–2]
Fall, Winter, or Spring Term: 1 credit
Prerequisite: Successful completion of Introduction to Ceramics.
This course is a continuation of techniques learned in the Introduction to Ceramics course. Various hand-building and wheel techniques will be covered along with an exploration of the different firing techniques used in the medium. This course may be taken a second time.
ADVANCED CERAMICS SEMINAR [1–3]
Fall, Winter, or Spring Term: 1 credit
Prerequisite: Successful completion of two terms of Advanced Ceramics.

This course for highly motivated students emphasizes the continued development of ceramics techniques through exploring clay as both functional, wheel-thrown pottery and/ or as a sculptural medium. Students will also be encouraged to devise novel approaches to solving problems of design, proportion, color, and form through the development of a thematically related body of work. Students may repeat this course up to three terms, provided that they have earned a minimum of an Honors grade in all previous ceramics courses.

ADVANCED SCULPTURE SEMINAR [1–3]
Fall, Winter, or Spring Term: 1 credit
Prerequisite: Successful completion of any two 3-dimensional electives.
[Available only to Fifth and Sixth Formers.]

An advanced-level sculpture course for highly motivated sculpture students that builds upon basic technical skills, emphasizing further and more extensive work with particular sculpture mediums. Students propose to develop a particular conceptual idea over a series of works. Students may repeat this course up to three terms, provided that they have earned a minimum of an Honors grade in all previous sculpture courses.

ADVANCED PORTFOLIO: DRAWING AND PAINTING
Full Year: 3 credits
Prerequisite: Successful completion of Advanced Drawing, and/or Advanced Painting. (Printmaking and Advanced Painting Seminar recommended.)
[Available only to Sixth Formers.]

This highly rigorous program provides serious and dedicated advanced-level drawing and painting students the opportunity to prepare an Advanced Placement Portfolio to be submitted to the College Board. Throughout this year-long course, students develop a comprehensive body of work that fulfills the Advanced Placement Portfolio requirements of breadth, concentration, and quality; students also organize an exhibition of their work.

ADVANCED PORTFOLIO: SCULPTURE
Full Year: 3 credits
Prerequisite: Successful completion of any two 3-dimensional electives, or Ceramics.
[Available only to Sixth Formers.]

This course consists of an in-depth exploration of 3-dimensional art with the aim of creating a rich personal portfolio, which also will satisfy the requirements of the Advanced Placement 3-Dimensional Design Portfolio to be submitted to the College Board. Students are expected to design projects for their own area of concentration in media such as ceramics, wood, metal, stone, or plaster; and are expected to demonstrate their breadth of abilities in all aspects of their 3-dimensional work, including volume, scale, shape, texture, color, negative and positive space, and other sculptural elements. Students will also organize an exhibition of their work.

ADVANCED PORTFOLIO: PHOTOGRAPHY
Full Year: 3 credits
Prerequisite: Successful completion of Advanced Photography Seminar.
[Available only to Sixth Formers.]

This course provides advanced photography students the opportunity to explore their unique personal vision with the aim of producing a comprehensive Advanced Placement Portfolio to present to the College Board. Students in this year-long course will develop in-depth work in a concentrated theme and explore the breadth of the medium through experimentation with alternative themes and processes. Students will also organize an exhibition of their work.
ARTS: MUSIC

The Music Program at SPS is primarily performance based, with vibrant choral and instrumental ensembles involving over 30 percent of the student body. The music curriculum is designed in part to support student participation in the ensembles by enhancing their skills through private lessons and musicianship classes as part of the Applied Music Program. Students may enter the Applied Music Program at any level, depending upon their ability as determined by a placement test at the start of the school year, and may take Applied Music as many years as they wish.

Participation in at least one School ensemble (Choir, Wind Ensemble, Orchestra) is a requirement for enrollment in Applied Music. However, any qualified musician may participate in any ensemble without being enrolled in the Applied Music class. In such cases, we strongly encourage students to take non-credit private lessons. A fee is charged for non-credit music lessons. Aside from the normal Arts fee schedule, lessons for those enrolled in Applied Music are free.

All music classes and lessons are taught by highly trained professional musicians.

MUSIC COURSES

INTRODUCTION TO MUSIC NOTATION
Fall, Winter, or Spring Term: 1 credit
In the digital age, many composers and songwriters work directly with music sequencing software. At some point in their career, they are faced with the need to interact with instrumentalists for performance and recording purposes. This is particularly true as the composer grows beyond pop songwriting into music for larger ensembles and for film. For those who do not understand notation and orchestration, this can be a tremendous roadblock in getting their music communicated effectively and efficiently, particularly since the “notation” software in sequencing applications falls short. This course is designed to help budding composers bridge the gap between their own creativity and the requirements of the working musician to play the composer’s works.

MUSIC THEORY AND LANGUAGE
Fall, Winter, or Spring Term: 1 credit
Prerequisite: Basic ability to read music and some experience in an instrument or voice.
This is an introductory course for students who wish to enhance their understanding of how music is structured and created. A detailed study of melody, rhythm, and harmony, in conjunction with the analysis of works by master composers, emphasizes the integration of hearing and writing. These skills are developed through daily exercises in composition and ear training. This course is the equivalent of a first-year college course and prepares students for the Advanced Placement Exam in Music Theory.

MUSIC COMPOSITION: PRIVATE STUDY
Fall, Winter, or Spring Term: 1 credit
[Full year recommended; option of one or two lessons per week.]
Using the basic knowledge of music theory, writing and performing original compositions is the aim of this credit course. Proficiency on an instrument, preferably keyboard, or in voice is recommended. No previous experience in composition is necessary, but a willingness to explore and experiment is essential in order to realize the goals of this course.

APPLIED MUSIC 1
Full Year: 3 credits
This course is offered to musicians who are new to SPS and the ensemble program, and fulfills the one-year Arts graduation requirement through participation in one or more of the School’s ensembles (Choir, Orchestra, Wind Ensembles). The year-long Applied Music 1 curriculum consists of two basic musicianship classes (BMC), one private or group lesson on their chosen instrument, and evening ensemble rehearsals each week. Ensemble rehearsals are typically held on Tuesday and Thursday evenings, 90 minutes each. Grades are based on performance in BMC, lessons, and ensemble participation (Fall and Winter). In the spring term, a 5-10 minute public performance [jury] is required. Musicians who do not pass the audition for an ensemble, or play an instrument for which there is no ensemble offered will be required to meet an alternative requirement in lieu of ensemble, and will be assigned to a music appreciation or survey course, or a third BMC skill building class. Although the standard arts fee applies, private and group lessons are free of charge to all students enrolled in Applied Music class as long as the student is either in an ensemble or assigned to an alternative class. Advanced students might be moved to Applied Music 2 after the fall term at the discretion of the Director of the Music Program.
APPLIED MUSIC [2–5]
Full Year: 3 credits
Prerequisite: Successful completion of Applied Music 1 along with participation in a major ensemble.

This course is a continuation of Applied Music 1. Students enrolled in this class receive two private lessons, or one private and one group lesson per week, and participate in one or more major ensembles. More advanced students are encouraged to participate in smaller “splinter” groups such as Madrigal Choir, Chamber Music, Jazz Ensemble, or other small ensembles coordinated by members of the Music Program faculty. Students perform two 5-10 minute public programs (juries) per year. Students may take this course for up to four years.

APPLIED MUSIC HONORS
Full Year: 3 credits
Prerequisite: Completion of Applied Music.

[This course contains a Service Learning component.]

This course is offered to qualified Sixth Form music students who wish to continue in the Music Program at a highly rigorous level and who have satisfied the requirements of Applied Music. It is designed for those music students who have the capacity and inclination to work independently and creatively. In addition to following the Applied Music curriculum, a student in this course is expected to do significant written research according to the instrument of study in the fall, participate in the School’s Service Learning program with an applicable reflection paper in the Winter Term, present a 30-minute solo recital in the Spring Term, and perform in Chapel during the school year. Students enrolled in this Honors course will be expected to meet on a regular basis to discuss the objectives of the course.

NON-CREDIT MUSIC
Full Year, Winter/Spring, or Spring Term

[This course may be taken for more than one year.]

Private, year-long instruction is available to all students who want to study music for no credit/no grade. Daily practice is required. Music studied in this course is based on individual needs and abilities and may include a broad spectrum of styles and genres, based on personal interests. A fee is charged for these lessons. As the School retains contracted music teachers annually based on the full academic year registrations received, early withdrawal from these music lessons does not release the family of their financial obligations for the remainder of the academic year. Please know that students may choose the options of non-credit music lessons for the full academic year, for the Winter and Spring Terms, or for the Spring Term only.

ARTS: THEATRE

The theatre program at St. Paul’s School is broad and challenging. The panoply of opportunities available to students serve as an introduction to many of the areas central to theatre making. Practical performance skills are complemented by an expansive introduction to many areas of contemporary and classical theatre. For the four-year theatre student, advanced theatre classes are a true preparation for college or a full-time vocational training at the world’s best drama schools.

The year-long Foundations in Theatre class serves as a prerequisite to all performance-based theatre electives, though this requirement may be waived for new Fourth of Fifth Formers with a strong performance background, demonstrating exceptional ability in theatre. Subsequent theatre electives share the common goal that learning about theatre should be done through theatre. As such, the study of contrasting works, from Miller to McDonagh, Shakespeare to Sophocles, is used to develop performance abilities, just as the practical exploration of text through performance builds a deep understanding of text, theme, and the playwright’s craft.

Areas of study include: Acting; Directing; Playwriting; Drama Criticism; Set Design & Construction; Stage Management; Lighting & Sound; Filmmaking (narrative); Filmmaking (documentary); Screenwriting.

THEATRE COURSES

FOUNDATIONS IN THEATRE
Full Year: 3 credits

[100-level course; available to Third through Fifth Formers.]

This course provides a broad survey of the theatre as an art form. Students become acquainted with the basic procedures and practices of theatre production from on-stage, back-stage, and historical perspectives. At the conclusion of the course, students have developed a true sense of respect for the art of theatre, as well as theatre artists, and also a critical appreciation for the role of theatre in society and in their own lives. The course is divided into trimesters each taught by a different faculty member.

Fall Term students explore the creative aspects of theatre as a means of both verbal and non-verbal communication. Students are introduced to the vocabulary of the stage and the various roles and responsibilities of theatre artists. They examine the relevance of the theatre and the future of theatre in society. Greek theatre and Commedia dell’arte are introduced as historical references during this section. As a final outcome of this section, students perform monologues – both scripted and improvised – tying together the techniques of storytelling.
**Winter Term** provides an overview of the technical aspects of theatre – students learn the history of the physical theatre space, production organization, and personnel, and have hands-on experience with theatrical equipment and materials, as well as an introduction to the basic design principles of costumes, sets, and lights. Greek, Roman and Elizabethan theatre are introduced as historical references during this section. Students are introduced to various roles and responsibilities related to film production, through the experiential, hands-on exploration of cinematic storytelling. Classical and Contemporary Hollywood Cinema are introduced as historical references. As a final outcome of this section, students complete projects in set and light design and film production.

**Spring Term** focuses on the actor as the storyteller. In this section, students are introduced to various acting techniques and theory, including acting for the camera and stage. This section focuses on scene-study, storytelling, and ensemble work, while incorporating skills learned throughout the course. Students will produce short scenes as a final culminating outcome.

**ACTING: CONTEMPORARY THEATRE**  
Fall Term: 1 credit  
**Prerequisite:** Successful completion of Foundations in Theatre.  
[200-level course]  
This class builds on the elements of naturalistic acting within the Foundations in Theatre class. Improvisation and Stanislavski-based rehearsal exercises, alongside the work of various contemporaries of Stanislavski such as Uta Hagen, are used in order to develop skills in characterization and inner life. Exploration of a range of influential works of contemporary theatre, including plays by Tracy Letts, Lucy Prebble, David Mamet and Suzan-Lori Parks, students will develop a broad understanding of the shape and state of contemporary theatre.

**THEATRE PRODUCTION**  
Fall or Spring Term: 1 credit  
[200-level course]  
One minor amendment to the current course outline: “Theatre Production varies in the material covered and is designed to allow students to take the course more than once, in order to develop a broad understanding of the various technical and production elements in theatre making.”

**FILM PRODUCTION**  
Fall or Winter Term: 1 credit  
[200-level course]  
This course challenges students to explore entry level production. The class focuses on the fundamentals of visual storytelling, while developing an understanding of the relationship between form and content. Students will be responsible for planning, shooting, and editing a number of short videos that are screened and critiqued in class. Creative use of a digital video camera is emphasized through the exploration of composition, camera movements, use of light, and editing. Different genres and shooting techniques are introduced through the viewing of film clips and discussions. Students learn to critique using the proper “language of cinema.”

**PLAYWRITING**  
Fall Term: 1 credit  
**Prerequisite:** successful completion of Foundations in Theatre.  
[300-level course]  
This class is aimed at those with interest in theatre and/or creative writing, who may be motivated to write a complete play for performance. The course explores key skills for the playwright, including storytelling, structure, dialogue, characterization, and the role of objectives and obstacles in building a story arc. Exploring how playwrights use elements, from subtext to dramatic irony, this class challenges students to write either a short one-act play, or collection of scenes, to be showcased as a rehearsed reading or as a performance for an audience.  
Though not a prerequisite, Acting (Contemporary Theatre) serves as an excellent introduction to this class, just as both classes serve as ideal preparation for Advanced Directing.

**SCREENWRITING**  
Fall Term: 1 credit  
**Prerequisite:** successful completion of Foundations in Theatre or Film Production.  
[300-level course]  
Students in this class will be challenged at their level of ability in all aspects of writing for the screen. Students explore cinematic narrative storytelling particular through critical analysis of films and the production of various scenes, monologues and short scripts. Projects are designed to help them with the process of developing character and plot and how to effectively use objectives, obstacles, dialogue, and emotional underpinning to enhance a story. Students will complete this course with an original short screenplay designed to be filmable by students here at St. Paul's School.
DOCS: DOCUMENTARY FILMMAKING  
Fall Term: 1 credit  
Prerequisite: successful completion of Film Production.  
[300-level course]
This course examines the world of non-fiction storytelling. Through project based learning and critical analysis, students will develop an understanding of various documentary styles. Students will explore all aspects of documentary filmmaking including: producing, writing, directing, interview technique, lighting, sound design and editing. Participants will be challenged at their level of ability as they engage the greater St. Paul's community, conduct interviews on camera and off and learn how to incorporate additional audio-visual materials to enhance their stories, with the goal of producing a series of short documentary exercise, culminating in a short documentary film.

ADVANCED ACTING: SHAKESPEARE & VERSE  
Winter Term: 1 credit  
Prerequisite: successful completion of Foundations in Theatre and Acting: Contemporary Theatre.  
[400-level course]
This class challenges students to learn about Shakespeare through Shakespeare, using active approaches to the study of classical works in order to help actors discover the possibilities within texts, in the same way the Royal Shakespeare Company approaches rehearsal. With a strong focus on classical verse, students will develop skills in performing verse and empathetic insight, using soliloquies, scenes and sonnets. Alongside study of Shakespeare's plays and sonnets, the class looks at classical Greek plays as well as modern theatrical works developed in the classical tradition. Classical acting arguable serves as the best foundation for building the actor's craft in any media. As such, students may repeat this course; for those with aspirations to pursue theatre at college or beyond, this is strongly encouraged.

ADVANCED FILM PRODUCTION  
Winter or Spring Term: 1 credit  
Prerequisite: successful completion of Film Production or Screenwriting.  
[400-level course]
This course challenges students to explore every level of production including producing, writing, directing, acting, lighting, sound design, art direction, production management, and more. Participants will be challenged at their level of ability and may also elect to concentrate in one area of the moving picture production process. This film ensemble models the operations of a professional production company and produces work for our local community, while also connecting to a world-wide audience with narratives, comedies, documentaries, and experimental art films. The course explores several levels of advanced moving picture technology while tapping into a variety of distribution outlets and recorded performance mediums. Students are expected to purchase an external hard drive for the course. It also would be helpful to have a digital camera. Students may repeat this course up to two terms.

ADVANCED DIRECTING  
Winter Term: 1 credit  
Prerequisite: successful completion of Foundations in Theatre, Acting: Contemporary Theatre, and at least two further acting classes.  
[400-level course; available only to Sixth Formers]
This course explores the historical and contemporary role of director in bringing a play from the page to the stage. Students will discover how to analyze and envision a script and communicate that vision to actors, designers, and the audience. Students will learn how to combine theatrical elements to tell a cohesive and compelling story. Students will read scripts; develop a thorough directorial plan, and direct scenes. *Fifth Formers intending to request this course for their Sixth Form year must do so by the spring of their Fifth Form.

DOCUMENTARY AND POLITICAL THEATRE  
Spring Term: 1 credit  
Prerequisite: successful completion of Foundations in Theatre and Playwriting.  
[400-level course]
This class explores theatre as a medium of social and political change alongside the role theatre plays as a mirror, held up to life, through which we understand the social and political in which we live. The class initially explores narrative-driven political plays and satires, such as Lucy Kirkwood’s Chimerica, Mike Bartlett’s 13 and King Charles III, and various works by David Edgar. From this platform, the class examines how documentary and verbatim theatre can be used to explore political and social issues in the modern world, using the work of writers such as Anna Deavere Smith, Alecky Blythe, and David Hare.
The interdisciplinary Humanities curriculum helps students develop the passion for inquiry essential to a healthy and examined life. Students are challenged to become engaged citizens and responsible leaders in an increasingly complex and globalized world. They creatively interact with and draw connections between diverse "texts." Faculty collaboration and ongoing innovation are hallmarks of the Humanities program. The interdisciplinary study is based on a developmentally appropriate model that fosters an understanding of self, community, the natural world, and the divine, while students develop critical thinking, writing, reading, and research skills.

Enrollment in humanities courses is subject to permission of the department head.

HUMANITIES WRITING PROGRAM

The Humanities Department strives to enable students become confident, proficient, assured writers in the fields they pursue in college and in their lives beyond. We expect students to write frequently with clarity, efficiency, integrity, and originality across a wide range of genres. Accordingly, our writing assignments are diverse, engaging a variety of media. Because good writers are good readers, students will read and explore a variety of voices and texts, thereby developing their own voices and learning that writing is about discovery and has multiple purposes in the world at large. Students will learn to process and to reflect upon their own thinking and writing, as teachers help students create a set of developmentally appropriate skills that individualize the writing process. Through their writing, students develop necessary habits of mind such as problem-solving, creative thinking, and curiosity. Learning and practicing these habits encourages students to think critically and write articulately about themselves and their world.

HUMANITIES CORE COURSES

HUMANITIES III
Full year: 6 credits (2 credits per term)

Humanities III introduces students to what will be a four-year experience that expects collaboration, student-centered learning, and richly interactive discussions. A key aspect of this program is its focus on a very wide range of "texts." A text, in our use of the term, might be a novel, a movie, a poem, a map, an African mask, a vase from Ancient Greece, a historical ruler, a painting, a propaganda poster and so on. We teach students to "read" such texts and to become adept at making significant connections between them. We seek to inspire in students an appreciation for the way in which terms such as man, woman, nature, God, and city differ in societies, and are not simple words at all. We use the idea of "self as text" in order to encourage students' personal understanding of their own complex cultures and an appreciative curiosity about the cultures of each other. We focus on the individual, exploring the archetype of the "hero's journey." We look at the societies that human beings create, asking – what happens when we live together? We explore questions of power, leadership, and the place of the individual in the society. We examine how different societies and cultures have interacted and come into conflict (or, less frequently, into cooperation) across history, and we pay attention to the experience of individuals in times of change and turmoil – what happens when humans are caught within a society in conflict? Throughout their studies, students continuously develop their critical and creative thinking skills through close reading, writing, discussion, and presentations. Students work in a variety of other creative media throughout the year, including creating plays, movies, documentaries, short stories, and more.

HUMANITIES IV
Full year: 6 credits (2 credits per term)

In Humanities IV, students explore the complex relationship between individuals and their communities through a varied and integrated disciplinary approach. Building on the conception of the self considered in Humanities III and anticipating the examination of the forces and beliefs shaping our modern world studied in Humanities V, Humanities IV investigates why individuals choose to come together in community, how they cope with tension and change, and how communities develop and evolve. Considering specific periods in American history, students explore primary and secondary texts, such as historical documents, artwork, and literature. Discussion and activity-driven classes encourage students to develop a curiosity about the United States, develop their own perspectives, and value others' viewpoints. Students practice writing as a critical means of self-expres-
ession with emphasis on analytical and creative writing. Varied assessments foster skill building – including critical reading, research, visual image analysis, and public speaking. A major research project examining some aspect of American history or culture is conducted in the Spring Term.

**HUMANITIES V**

Full year: 6 credits (2 credits per term)

In Humanities V, students engage in a rich interdisciplinary study of the human experience in the modern world. Extending the studies of self and community explored in *Humanities III* and *IV*, *Humanities V* examines the forces and ideologies that have shaped the modern world, the conflicts that arise between differing ideologies, and the challenges and responsibilities of living in the 21st century. Students explore connections across cultures, timelines, borders, and “canons” in a quest to answer the question “how then shall we live?” Through a close examination of diverse texts, students imaginatively and rigorously recreate the context both informing and informed by these works. Students refine the skill of close reading and develop critical vocabularies for various disciplines. Beyond the expository essay, students engage in a variety of other assessments to develop greater appreciation for and control of the nuances of language and self-expression. Focused on creating a culture of collaborative learning, the teacher models and facilitates the development of critical listening and effective speaking skills. The course culminates in a year-end capstone project of the student’s choice.

**HUMANITIES ELECTIVES**

Elective courses are open to Fourth, Fifth, and Sixth Form students with the following prerequisites:

- 300-level electives offer course content, context, and homework based upon the School's guidelines for Fourth and Fifth Formers. Fourth and Fifth Form students must have earned an Honors grade in Humanities III and/or Humanities IV and new Fourth or Fifth Form students must have the approval of the Humanities Department Head and the Dean of Studies to enroll in a 300-level elective.

- 400-level electives offer course content, context, and homework aimed at Sixth Formers, though qualified Fifth Formers and exceptional Fourth Formers may apply. Fourth Form students must have earned a High Honors grade in Humanities III, Fifth Form students must have earned an Honors grade in Humanities IV, and new Fourth and Fifth Form students must have the approval of the Humanities Department Head and the Dean of Studies to enroll in a 400-level elective.

- Spring Term 300-level electives are not available to Sixth Form students.

- Priority for enrollment in 300-level electives will be given to qualified Fourth and Fifth Form students. Priority for enrollment in 400-level electives will be given to Sixth Form students.

**AMERICAN FILM AND CULTURE, 1950s AND 60s**

Fall or Spring Term: 1 credit

This course focuses on the historical and cultural forces of two consecutive decades in the United States: the 1950s and 1960s. With a thematic approach, the class explores issues of the American family, gender roles, race, and other defining cultural values that have shaped modern America. To supplement the historical readings, classic American films are used as cultural centerpieces to enrich discussions and essays. Some of the films used in past classes include *Rebel Without a Cause*, *High Noon*, *Cool Hand Luke*, *The Graduate*, and *Dr. Strangelove*.

**AMERICAN FOREIGN POLICY**

Winter Term: 1 credit

This course asks students to examine the paradigm that governs American foreign policy and the key moments in history when the paradigm has shifted. In our study of foreign policy decisions, this course examines America’s role as an imperial power, the power struggle between the United States and the Soviet Union during the Cold War, the role of human rights in America’s foreign policy decisions, the relationship between the United States and the United Nations, and the concept of America as the world’s global police. Students are required to read *The New York Times* and to pay particular attention to current events. Books might include Stephen Ambrose’s *Rise to Globalism*, Henry Kissinger’s *Diplomacy*, and Thomas Paterson’s *Major Problems in American Foreign Relations*.

**AMERICAN GOVERNMENT**

Winter Term: 1 credit

The objective of this course is to introduce you to the institutions, processes, and actors that comprise the American political system at the national level, as well as to engage you in empirical and critical thinking regarding the nature and quality of American democracy. The course begins with an examination of the ways we can systematically examine American politics, and then turns to the structure of American government with an emphasis on the divisions of power between levels of government and branches of government. We’ll investigate the legislative and executive branches of government, looking specifically at the workings of the Congress, presidency, and bureaucracy, and how these institutions engage in policy making and policy execution. The role of American elections and the combination of forces that lead to policy change also will be examined. We will end the course by considering the American judicial system and its role in our system of government. Current events will be incorporated regularly and used as lenses into the issues we are studying.
AMERICAN POLITICS
Fall Term: 1 credit
We will start with some founding documents including the Declaration of Independence and The Constitution of the United States of America. We will discuss the dynamics, organization and decision making processes of the American Congress and pay attention to the relationship between legislators and their constituents and legislators and the President. We will also examine the growth of presidential power, the cult of presidential personality, and the issue of presidential accountability. Some crucial questions we might address include: What is the relationship between citizens and elected officials? How do the political parties function in terms of decisions made by members of Congress? How is power balanced between the three branches of government? At its heart this course will also be a current events course focusing on issues within the political system of the United States.

THE ARTISTRY OF JAMES JOYCE: DUBLINERS AND A PORTRAIT OF THE ARTIST AS A YOUNG MAN
Fall Term: 1 credit
This course focuses on two works by James Joyce, one of the most acclaimed authors of the early 20th Century. Dubliners is a collection of short stories that combine to give a vivid and challenging portrait of life in Dublin as Joyce perceived and experienced it. A Portrait of the Artist as a Young Man is Joyce's fictional presentation of the autobiography of a young writer. It is a powerful and artistically important work that helped define the literary movement known as Modernism. Close study of these two works opens up a world of literary imagination and powerful prose that invites students to read deeply, think creatively, and write expressively.

BASEBALL: “AMERICA’S PASTIME”
Spring Term: 1 credit
This course will look closely at how the game of baseball has mirrored American social, political, and economic currents. The course will follow a chronological timeline, from the rise of the major leagues in the 1870s through the modern era, paying particular attention to the game’s impact on individuals and families; racial discrimination and integration; labor relations; urbanization; roles of women; treatment of gay athletes; and implications of performance-enhancing drugs.

BLACK MUSIC AND URBAN SOCIOLGY
Winter Term: 1 credit
This class will uncover how black music or music of the African diaspora addresses issues of racism, sexism and socioeconomic inequalities. We will look at popular musical genres such as Hip-Hop, R&B, Reggae, Bachata and Reggaeton. This class will study these genres’ histories, lyrics, music videos, and other cultural aspects to understand how these genres expose various social inequalities that are present in the United States and in the World. The course will use Tricia Rose’s The hip-hop wars as a primary text.

CIVICS HONORS SEMINAR
Spring Term: 1 credit
[400-level course; entry for the Honors Program in Engaged Citizenship.]
Prerequisites: Honors-level performance or better in Humanities IV and Successful completion of American Government or American Politics.
The Civics Honors Seminar grows from the School’s mission to intellectually and morally challenge our students as they “engage as servant leaders in a complex world.” This opportunity enables highly motivated, self-directed students to pursue study, research, and experiential learning in U.S. government, law, or public policy, during their Fifth and Sixth Form years. Students develop a deeper and more nuanced understanding of why individuals gather to form governments, how governments function, and what rights and duties we all possess as citizens.
During the fall of the Fifth Form year, students and their parents fill out an application, indicating interest in a suitable summer internship opportunity for the student. Parents arrange accommodations and transportation, allowing the students to participate in the internship. The application includes questions about the student’s experience and interest in government, law, and public policy. Students accepted by the program attend a fall and winter seminars designed to support them in their search for acceptable internships. If a student has met all of the periodic milestones and has secured an acceptable internship by the end of Winter Term, they are accepted into the Civics Honors Seminar.
Due to the involved nature of this process, students must sign up for an alternate spring course, which is dropped if the student is accepted into the Civics Honors Seminar (similar to the Independent Study Program application process).

COMING OF AGE
Spring Term: 1 credit
A bildungsroman is a literary genre that focuses on the development of a protagonist as he/she grows and changes. In this course, we will read a variety of coming of age tales. Students will keep blogs to highlight their own travails as they seek answers and experiences. In addition to reading several novels we will also observe several noteworthy coming of age films including Stand By Me, The Graduate, Igby Goes Down, The Kids are All Right, and The Fits. Novels we might read in this course include: The Curious Incident of the Dog in the Night-time by Mark Haddon, Portrait of the Artist as a Young Man by James Joyce, The Brief Wondrous Life of Oscar Wao by Junot Diaz, and The Absolutely True Diary of a Part time Indian by Sherman Alexie.
CONTEMPORARY AMERICAN FICTION
Spring Term: 1 credit
[NCAA: English core course.]
This course surveys the trends and writers of the last forty years in American fiction, considering, among other things, the ways in which contemporary fiction has emerged out of the traditions studied in Humanities IV and Humanities V. The course focuses on multiple genres, aspects of form in contemporary prose fiction, and recurring themes involving individual identity in the conformist culture of contemporary America. Students will leave the course with a sense of some of the many directions of contemporary American fiction as well as a desire to read more works by writers who have spurred their interest through their brief encounter with them. Authors may include Joseph Heller, Jack Kerouac, Toni Morrison, Julie Otsuka, Kurt Vonnegut, and Alice Walker.

CREATIVE WRITING
Fall, Winter, or Spring Term: 1 credit
[NCAA: English core course.]
This course is designed to help young writers experiment in order to find an original voice. To develop their stamina, students work over the term towards a final portfolio of pieces in several media, which they can revise right up to the end. Its focus enables students to find their own writing voice, having an opportunity to try out poetry, fiction, personal writing, creative non-fiction, and script writing. In addition, for VI Formers the course yields interesting material that might be useful for the process of developing college essays, but it will not specifically prepare students for that task. Students are taught how to read texts not in terms of literary analysis but in terms of their usefulness as writers, regularly work-shopping their drafts with the rest of the group and studying new techniques and processes through a variety of assignments. The class also has the chance to work with visiting writers who come to St. Paul’s School as Schlesinger writers-in-residence or Conroy visitors.

DECADENCE AND DECLINE IN THE 1920s AND 1930s
Winter or Spring Term: 1 credit
[NCAA: English core course.]
This course explores two of the most significant decades of the 20th century in the United States: the 1920s and ’30s, twenty years of decadence and decline. Starting off with an examination of the aftermath of World War I, the course careers into the “Roaring Twenties,” reading works by Ernest Hemingway and F. Scott Fitzgerald. The early ’20s of economic prosperity, cultural excess, and moral decadence come screeching to a halt in the last years of the decade with the stock market crash and the onslaught of the Great Depression. Looking at poetry, film, art and literature by noted writers such as John Steinbeck and Studs Terkel, the course will end with an exploration of American history and culture of the 1930s.

ENCOUNTERS: LITERATURE OF TRANSFORMATION AND TRANSCENDENCE
Fall, Winter, or Spring Term: 1 credit
[NCAA: English core course; satisfies the diploma requirement in religious studies.]
The twentieth-century Jewish philosopher Martin Buber famously noted, “All real living is encounter.” In this course, students explore this existential assertion through the study of selections from the world literature that engage three enduring and central themes: Creator/Creation, Dark Night of the Soul, and Transformation/Transcendence. Readings include selections from the Bible, the Qur’an, and the Bhagavad Gita, and variously from Shelley’s Frankenstein, Milton’s Paradise Lost, Dante’s Inferno, the poetry of Wordsworth, Emerson, et al., Hesse’s Siddhartha, Goethe’s Faust, the short stories of Flannery O’Connor, Frankl’s Man’s Search for Meaning, Wiesel’s Night, Martel’s Life of Pi, Aeschylus’s Oresteia, Miller’s Death of a Salesman, Updike’s Pigeon Feathers, Petrarch’s Ascent of Mount Ventoux, and the essays of Annie Dillard and Barbara Kingsolver. Students will employ and develop skills in close reading, comparative analysis, critical scholarship, and personal reflection, writing reading-response journals, analytical essays, and concluding personal essay.

ESSAY WRITING
Fall Term: 1 credit
[300-level course; NCAA: English core course.]
This course is designed to help young writers refine their prose by experimenting with non-fiction essay writing. Students will work over the course of the term reading various models of essay writing by professional writers and exploring their own voices to create clear, concise, engaging prose. For Sixth Formers the course may generate good material for college essays, although this is not the goal of the course. Some of the various prose models students will examine and write themselves include sharing a narrative, illustrating an idea, explaining a process, comparing and contrasting, using definition, arguing persuasively. Throughout the term students will learn ways to generate ideas, keep an active journal, help one another in regular in-class writing workshops, and discover the value of the revision process.

FOOD, ENVIRONMENT, AND SOCIETY
Spring Term: 1 credit
What people eat, and how they grow and acquire their food, speaks volumes about their values, health, and relationship to the land. In this course, students will investigate what the typical modern American diet and its means of production say about our society and us, looking at its historical development, its beneficial qualities, and its negative effects on human and environmental health. Students will examine the ways that farmers and advocates are working to improve our food system. Students will read and discuss a variety of literature, as well as meet farmers, share food, and get their hands dirty! Course readings may include selections by Thomas Jefferson, Upton Sinclair, John Steinbeck, Cesar Chavez, Wendell Berry, Michael Pollan, Barbara Kingsolver, Eric Schlosser, and others.
FUNDAMENTALS OF ECONOMIC THEORY AND PRACTICE
Fall or Winter Term: 1 credit
The three-fold design of this non-mathematical introduction to economics provides students an overview of the discipline that can serve as a background for courses in related subjects, a foundation for further study in economics, and a knowledge base for becoming an informed worker, consumer, and citizen. While examining briefly the history of economics and some of its seminal thinkers, the course concentrates on understanding basic economic theory (macro and micro), developing a practical knowledge of the workings of principal economic institutions (e.g., the Federal Reserve system, the stock market, the banking sector, etc.), and appreciating the subtleties of national economic policy, especially in light of current economic challenges.

HISTORY OF AMERICAN JOURNALISM
Winter Term: 1 credit
[300-level course]
From the first instance of censorship in 1690 to yesterday’s news, journalism has been the backbone of American politics and culture. This course explores the beginnings of journalism, the first amendment, and the role of freedom of the press in shaping American democracy. Additionally, the course examines the shifting forms of journalism in recent years and the role of technology and social media including citizen journalism and fake news. Students will write both analyses of current news coverage and their own narrative journalism. Possible texts include Sacco’s Journalism, Daly’s America: A Narrative History of a Nation’s Journalism, Gladstone’s The Influencing Machine, and more.

INTRODUCTION TO ISLAM: ITS LITERATURE AND PRACTICE
Winter Term: 1 credit
The study of Islam has taken on new urgency. Through the inimitable poetry of the Qur’an, the haunting poetry of Sufi mystics such as Rumi and Haffiz, and the frequently raw but compelling contemporary literature of writers such as Tayeb Salih, Ahmadou Kourouma, Hanif Kureishi and Khaled Abou El-Fadi, this course will serve as an introduction to the history, philosophy, and lived reality of Islam in all its unity and diversity, as it is lived and loved in many varied cultures and countries throughout the world, including America. Along the way, students will learn the fundamental concepts and devotional practices of the Islamic faith. This course seeks to engender a thoughtful and enlightened understanding of the Muslim worldview and the manner in which it has influenced and continues to influence literature, politics, and culture worldwide. An in-depth study of the origins and appeal of radical, political Islam will be included, and students will choose from among the most pressing, current issues in the Islamic world for independent final papers and presentations.

JESUS IN LITERATURE, ART, AND FILM
Fall Term: 1 credit
Of all the questions Jesus asked, perhaps none was more provocative than one he addressed to his disciples: “Who do people say that I am?” This course will trace some of the answers given to that question in literature, art, and film by various individuals and communities over time, with a view toward helping students arrive at their own answers. The course begins with an examination of the biblical and extra-biblical documents and an investigation of their historical background and meaning. It goes on to explore how the Gnostic, Christological, and Trinitarian controversies of the 2nd, 3rd, and 4th centuries shaped evolving views of Jesus. The course continues with an examination of a number of the views of Jesus exemplified in the pictorial art of different historical periods. The course culminates in the viewing and analyses of several films about Jesus. Students will explore the various dimensions of each film’s presentation, what it tells us about Jesus, about those who made the film, and about those who view the film. All students should expect to challenge, deconstruct, and ultimately redefine whatever ideas they have about Jesus and who he might be.

LITERATURE OF THE AMERICAN FAMILY
Winter Term: 1 credit
[Service Learning component; NCAA: English core course.]
This course studies twentieth-century perspectives of the American family through contemporary fiction and nonfiction. Issues examined include how families define themselves, how they are shaped by external forces, and how individuals respond to roles they are assigned within the family. In the past few years works have included Norman MacLean, A River Runs Through It; Julia Alvarez, How the Garcia Girls Lost their Accents; Michael Dorris, A Yellow Raft in Blue Water; and John Cheever, The Stories of John Cheever. In addition this course includes a service learning component in which students will engage the subject material working with the Concord Department of Social Services and/or Lutheran Social Services.
LITERATURE OF RELIGION IN AMERICAN LIFE
Winter Term: 1 credit
The variety of religious expression in American life and history is startling. Religion touches everything – politics, history, literature, art; family, friendship, food, pop culture; ritual, belief, community; race, gender, sexuality; hopes, trauma, identity, and souls. In this course, we will read and write about religion in a variety of genres. We will examine personal and academic essays; journalistic writing about religion; works of fiction and devotional works; poems and prayers. Through this reading, students will gain exposure to a variety of snapshots of religious expression, and a deeper understanding of how religion is woven into the ordinary lives of diverse Americans. This deeper understanding will be the basis on which students’ own creative and critical writing is built. This course will strengthen students’ research and writing skills, and allow them to use these skills to pursue their own questions about religion in American life. Texts include Radiant Truths: Essential Dispatches, Reports, Confessions, and Other Essays on American Belief as well as works by Flannery O’Connor, Langston Hughes, Peter Manseau, Laila Lalami, and more.

INTRODUCTION TO SOCIAL JUSTICE: CLASSISM AND SEXISM
Fall Term: 1 credit
This course is designed to have students understand and think critically about social difference and social injustice in the world in general, and in their own lives in particular. Specifically, the course will examine classism and sexism in depth and explore how these issues affect our lives. By the end of the course, students ought to be able to act as agents of knowledge and change within and outside of their school communities.

INTRODUCTION TO SOCIAL JUSTICE: RACISM AND HETEROSEXISM
Winter Term: 1 credit
This course is designed to have students understand and think critically about social difference and social injustice in the world in general, and in their own lives in particular. Specifically, the course will examine racism and heterosexism in depth and explore how these issues affect our lives. By the end of the course, students ought to be able to act as agents of knowledge and change within and outside of their school communities.

LATIN AMERICAN FICTIONS
Fall Term: 1 credit
A rich corpus of narrative works written in English or in English translation animate the field of Latin American literature, and in this course, we will sample some of the best contemporary Latin American fiction. While literary figures such as Jorge Luis Borges, Gabriel Garcia Marquez, Isabel Allende and Pablo Neruda were the dominant Latin American voices of the 20th century, newer writers such as Junot Díaz, Roberto Bolaño and Valeria Luiselli are of rising literary importance. This survey course will explore the writings of a wide range of authors as we recognize, in the narratives of Spanish-speaking and bilingual English/Spanish writers, the common and uncommon voices of daily Latin American life.

MAKING IT STICK: METACOGNITION IN LITERATURE
Fall Term: 1 credit
Have you ever wondered about what makes a book great to read, or how and why we think about what we read? Why do some ideas and events from books stick while others are dismissed and forgotten? This course will begin by reading Make It Stick (Brown, Roediger and McDaniel) about how we learn, how we process material and why we remember it or not. From there we will read four “great” books, not necessarily classics from the canon of Western Literature, but books notable for their content as well as their writing; books that a well educated, inquisitive and thoughtful person should read. The eclectic selections may include: Stoner by John Williams, The App Generation by Howard Gardner and Katie Davis, Confederates In The Attic by Tony Horwitz, and Under the Banner of Heaven by John Krakauer. Throughout the course – as we read these great books – we will return to the ideas about learning from Make It Stick and consider how we think, how we learn, what we remember, and why we do so.

MIDDLE EASTERN LITERATURE
Spring Term: 1 credit
[NCAA: English core course.]
Learning of the literature from any culture is one way to reach beyond the often vilifying and victimizing headlines common in today’s mass media. Certainly, for the West, the Arab world is full of paradoxes, puzzles, and misunderstandings. The Arab world is also rich in its literary traditions and production, ranging from 6th century love poetry to the original Arabian tales to contemporary novels and short stories. This literature reveals the tremendous diversity of the Arab world, as well as how authors perceive their own country’s or culture’s difficulties. In reading this literature translated into English, we quickly learn that there is more to a people than negative headlines. Issues of political repression, civil war, gender roles, environmental destruction, family, friendship, and love emerge to surprise us and give us a glimpse into a varied culture that is so heavily misunderstood. The course will also take a significant look at Islamic art and its connections to the Arab narrative tradition. Readings could include: pre-Islamic poetry, Hadawi’s translation of Arabian Nights, poetry and memoir by Mahmoud Darwish, Naguib Mahfouz’s Arabian Nights and Days, Abd al-Rahman Muni’s Endings, Salwa Bakr’s The Golden Charriot, Fatima Mernissi’s Dreams of Trespass, and Hanan al-Shaykh’s The Story of Zahra.
MODERN CHINA
Spring Term: 1 credit
Modern China will explore the unique history of China in the 20th and 21st centuries by reading a range of primary sources applicable to significant events. We will review some of the work of Humanities V and discuss the legacy of Mao Zedong and Deng Xiaoping in shaping modern China, a fast-growing, dynamic society that in some ways defies categorization as a Communist country. As a final project, students will be expected to tackle one major research project, to write a series of shorter papers, or to compose a TED talk demonstrating their understanding of a 21st century issue that currently faces either China’s citizens or government. The primary text for this course is China Since 1644: A History Through Primary Sources. Supplementary readings will be assigned as appropriate.

NEW MEDIA AND CULTURE IN THE 21ST CENTURY
Spring Term: 1 credit
What do we want from the media? This course will examine how the changing face of media might affect the way that individuals communicate, how they interact with each other, and how they learn about the world in which they live. Alternating between media criticism and media creation, students will briefly examine the history of journalism, reflect on its continuing transformation into an online, on-demand source of information, and flex their own journalistic muscles through the creation of blogs, podcasts and other forms of new media. In addition, students will gain experience in the field, specifically through the service learning component of the course, which will complement the written work, texts, articles, films, and guest speakers that will serve as the backbone for their work in the classroom.

NO JUSTICE NO PEACE – SOCIAL MOVEMENTS OF THE 21ST CENTURY
Spring Term: 1 credit
Still in present day, ordinary people just like you are seeing an issue in our society and demanding that this problem is changed. History has shown many times that when people fight for change, they often are able to make a difference in society. This class will look at 21st century social movements such as #BlackLivesMatter, Same Sex Marriage and The DREAM Act. A primary text for the course will be When We Fight, We Win by Greg Jobin-Leeds.

POSTWAR JAPAN
Winter Term: 1 credit
This elective focuses on the stories of Japan’s cultural, political, and personal responses to their defeat in World War II. How did this country manage to live up to Hirohito’s request and “endure the unendurable” in the years after the country was destroyed by war? Through historical readings, personal narratives, short stories, films, and novels, students examine this unique story in Japan’s history.

RACIAL AND ETHNIC RELATIONS
Fall Term: 1 credit
Do race and ethnicity really matter? Does one’s race/ethnicity affect their experience in the United States? This class will critically look at the history and formation of race and ethnicity in the U.S. and relate this phenomenon to present day issues of racial/ethnic identity, classism and racism. We will specifically look at racial/ethnic groups including Black, White, Latino, Asian, and Native American People. The course will use the text Race and Ethnic Relations by Joe Feagin.

THE RELIGIOUS HISTORY OF THE EPISCOPAL CHURCH AND ST. PAUL’S SCHOOL
Spring Term: 1 credit
Do you ever wonder what it means to attend an Episcopal School? From its founding to its chapel architecture, St. Paul’s School is rich with the literary, historical, aesthetic, liturgical, and spiritual movements of the Anglican tradition. At first, this writing and research intensive course will study the historical origins of the Church of England, the Episcopal Church, and St. Paul’s School, as well as investigate the modern diversity of the Anglican tradition today with a field trip to Boston’s historic churches and current chaplaincy programs. Secondly, the Chapel architecture of both the Old and New Chapels will be studied in depth through the spaces themselves and the School archives to reveal the variety of school piety as well as theological symbolism created over the years. To conclude, the course will look at different literary manifestations of Anglican spirituality used in the Episcopal tradition, from the writing of the likes of T.S. Eliot, C.S. Lewis, and W.H. Auden to the devotional aspects of the 1982 Hymnal and Book of Common Prayer.

REVOLUTIONARIES OR VISIONARIES?
Winter Term: 1 credit
This course will examine five American figures in the Twentieth century and consider whether they were revolutionaries, or visionaries. Individuals to be considered are Mary McLeod Bethune, the Wright Brothers, Branch Rickey, Billie Jean King, and Gloria Steinham. This course will be writing intensive, asking students to compare and contrast the various revolutionaries / visionaries to one another, with specific attention to their impact on the American experience. The course will conclude with a culminating assessment with each student selecting and presenting their own Twentieth Century American revolutionary or visionary.
SCIENCE FICTION AND PHILOSOPHY
Winter Term: 1 credit
The daily use of advanced technology in human life, and the dependence of that technology upon continued progress in the science of artificial intelligence, has given rise to speculation about the direction consciousness and morality will take if and when machines become sentient: when they begin to think, feel and behave as if human. In 1968, science fiction writer Philip K. Dick asked rhetorically in the title of his 1968 novel Do Androids Dream of Electric Sheep? Both philosophers and scientists wondered the same, and have been writing about this potential moment of “singularity” for the past fifty years. In this course, using Susan Schneider’s edited text Science Fiction and Philosophy, we will examine the work of legendary science fiction writers Alex Asimov, Ray Bradbury, George Orwell and Robert A. Heinlein, as well as philosophy from the western classical period, to familiarize ourselves with the convergence of science fiction and philosophy. But our larger task will be the same one Schneider set out for herself, and that is to “open the door to age-old questions about our very nature, the nature of the universe, and whether there are limits to what we, as humans, can understand” (Schneider 1).

SHAKESPEARE’S TRAGIC HEROES
Fall Term: 1 credit
[NCAA: English core course.]
William Shakespeare is widely acknowledged as a master of the English language and an astute observer of human nature and behavior. This course focuses on the tragic heroes of these great Shakespearean tragedies: Hamlet, King Lear, Macbeth, Coriolanus, and Julius Caesar. Using these plays as a lens, students will examine several important questions about the human condition: What is the nature of good and evil? Why do good people do evil things? Can good triumph over evil? What is the connection between conscience and action? What is the balance between reason and passion? In addition to reading the plays, students will watch both live and filmed productions, and write extensively about the content and form of the great masterpieces.

THE VIETNAM WAR
Fall Term: 1 credit
This course will provide students with the opportunity to examine in great detail one of the most important world events in the last sixty years, the conflict in Vietnam. Specific topics such as the life of the “grunt” and turmoil on the home front will be explored, as well as larger questions about the nature of war itself in the second half of the twentieth century. In an effort to answer questions about the war as it really was, versus that seen in popular literature and film, the class will consider a broad selection of media, as well as a variety of historical texts and essays. Documentaries and motion pictures to be studied include: Hearts and Minds, The Hanoi Hilton, The Green Berets, Apocalypse Now, Platoon, Full Metal Jacket, Born on the 4th of July, Casualties of War, and others. Works read will include, but are not limited to, excerpts from: Philip Caputo’s A Rumor of War, Truong Nhu Tang’s A Vietcong Memoir, Tim O’Brien’s The Things They Carried, Robert Mason’s Chickenhawk, Michael Herr’s Dispatches, Stanley Karnow’s Vietnam: A History, and a selection of essays from Major Problems in the History of the Vietnam War.

WORLD WAR II
Winter Term: 1 credit
[NCAA: English core course.]
This course provides a historical overview of the Second World War so that students may effectively analyze a variety of sources concerning specific elements of the conflict. Beginning with an understanding of the Germans’ hatred of the Treaty of Versailles following their defeat in World War I, students will then take a look at the rise of Hitler in the 1930s as well as the growing isolationism in the U.S. prior to the Japanese attack on Pearl Harbor in December 1941. While this course does not review each battle, significant military events (e.g., D-Day) will be studied alongside corollary elements of the war (e.g., Japanese internment; the Holocaust; women in the work force). The course will use film, documentaries, poetry, fiction, and art of – and about – WW II.

THE SHORT STORY
Spring Term: 1 credit
[300-level course]
This elective focuses on the exploration of the medium of the short story. Students will read a variety of short fiction, both individual stories and collections by various authors. In their examination of these texts, students will consider character, plot, resolution, and theme as influenced by the form and constraints of the genre. Students will respond to the stories by writing analytical essays, their own short stories, and book reviews of works they have read.
The mission of the Languages Department is to develop in students the language skills that will enable them to gain a firsthand appreciation and understanding of other people’s languages, literatures, histories, and cultures. Students learn to respond creatively and critically to the challenges and opportunities for communication in the world today. Our ultimate goal is to help students cultivate a healthy vision of the future that includes not only themselves but past and present peoples from around the world.

As an objective framework for our mission statement, we have adopted the five goals as set forth by the American Council for the Teaching of Languages:

• **Communication:** Communicate in languages other than English.
• **Cultures:** Gain knowledge and understanding of other cultures.
• **Connections:** Connect with other disciplines and acquire information.
• **Comparisons:** Develop insight into the nature of language and culture.
• **Communities:** Participate in multilingual communities at home and around the world.

Seven languages are offered – two classical and five modern – with Honors sections available. The Classical Honors Program attracts students who achieve a high level of competence in Latin and Greek.

The School Year Abroad program (SYA) offers students studying French, Spanish, and Chinese opportunities to improve their language skills dramatically in an immersion setting. Exchanges with the Seikei School in Japan; the École Alsacienne in Paris, France; and the Humboldt Gymnasium in Leipzig, Germany, offer similar benefits.

**Enrollment in language courses is subject to permission of the department head.**

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**CHINESE COURSES**

**CHINESE 1**
Full Year: 3 credits
This is an immersion course for beginners. Students learn to express themselves and understand others by focusing on topics closely related to their daily life. The phonetic system Pinyin and the four tones are introduced. Students learn to read and write simple passages in Chinese characters. Multimedia aids such as audio/video programs and the internet are used. Students are also introduced to Chinese geography, songs, poetry, cooking, and culture through various projects.

**CHINESE 2**
Full Year: 3 credits
*Prerequisite: Successful completion of Chinese 1.*
This course is a continuation of Chinese 1. Using increasingly complex vocabulary and sentence structures, students respond to a variety of functions: formulating questions, describing, and narrating. Students read and write short compositions on a weekly basis. Cultural aspects of the language are emphasized through term projects.

**CHINESE 2 HONORS**
Full Year: 3 credits
*Prerequisite: Successful completion of Chinese 1.*
The course is designed for students who have a solid mastery of the grammar and vocabulary covered in Chinese 1. Students continue to build essential vocabulary in order to read and write level appropriate passages, develop speaking skills, and become acquainted with aspects of Chinese culture and society. In addition, the study of syntax is quite intense in this class and students are expected to express themselves with grammatical precision. Homework, essays, and chapter tests are completed in pencil.

**CHINESE 3**
Full Year: 3 credits
*Prerequisite: Successful completion of Chinese 2.*
This course builds on Chinese 2. Students have regular opportunities for meaningful communication by using more complex structures, vocabulary and idiomatic expressions. The focus of the course is to combine and expand elements previously learned in order to enable students to express themselves more accurately. Students are expected to discuss readings and write weekly journal entries. Cultural aspects of the language are emphasized through focused term research projects. Multimedia aids are used.
CHINESE 3 HONORS
Full Year: 3 credits
Prerequisite: Successful completion of Chinese 2 Honors.
This course is designed for students who have a thorough mastery of the grammatical structures and vocabulary covered in the second year. Students learn to state their own opinions in longer speeches using more complex structures and vocabulary. Reading skills continue to be developed using a variety of texts which include short stories and tales. Students are expected to write regularly.

CHINESE 4
Fall, Winter, and Spring Terms: 3-credit sequence
[Full year recommended.]
Prerequisite: Successful completion of Chinese 3.
This course pays special attention to developing students’ oral and listening competence. Students read more extensively on various topics including short stories and other literary pieces. Idiomatic expressions are introduced through reading literary selections. Students are expected to write regularly. Cultural aspects of the language are emphasized through focused term research projects. Multimedia aids are used on a regular basis.

CHINESE 4 HONORS
Fall, Winter, and Spring Terms: 3-credit sequence
[Full year recommended.]
Prerequisite: Successful completion of Chinese 3 Honors.
This immersion course pays special attention to developing students’ oral competence and listening skills through vocabulary, communication, listening exercises, readings and discussions around various themes. Students read more extensively on various topics including newspaper articles, short stories, and other literary pieces. Idiomatic expressions are introduced through literary selections. Students are encouraged to discuss current events and to develop their creativity through projects using posters, videos, oral presentations etc. Multimedia aids are used.

CHINESE 5 HONORS
Fall, Winter, and Spring Terms: 3-credit sequence
[Full year recommended.]
Prerequisite: Successful completion of three terms of Chinese 4 Honors.
This course, designed for more advanced students, further develops overall Chinese language proficiency and knowledge of Chinese culture through movies, discussions, and extensive reading of various texts, including materials from newspapers, magazines, and other authentic documents. Students master advanced-level language structures, expressive styles, and conventions of communication through topics reflecting multiple aspects of Chinese society and culture and the use of various authentic multimedia materials in different linguistic registers.

CHINESE 6 HONORS
Fall, Winter, and Spring Terms: 3-credit sequence
[Full year recommended.]
Prerequisite: Successful completion of three terms of Chinese 5 Honors.
The course aims to further develop students’ overall Chinese language proficiency and knowledge of Chinese culture. History and current events in China provide the context for in-depth discussion and writing assignments. Students are expected to read various authentic materials ranging from Confucian to expository writings in a modern and contemporary literary style.

CHINESE SEMINAR
Fall, Winter, or Spring Term: 1 credit
Prerequisite: Successful completion of three terms of Chinese 6 Honors.
This course is designed for advanced students who have a near-native fluency in Chinese. The focus is on reading, class discussion, and writing. The materials for this course are chosen mostly from modern literary writings, but classical literary pieces are introduced as well.

FRENCH COURSES

FRENCH 1
Full Year: 3 credits
This course offers students an introduction to the language and culture of contemporary French-speaking countries. Grammar, vocabulary, and syntax are studied using a film-based textbook with simple dialogues, oral and written drills, building conversational skills. Work in the Language Center reinforces the development of listening and speaking. The class is conducted mostly in French.

FRENCH REVIEW
Full Year: 3 credits
This course offers an introduction to the language and culture of contemporary French-speaking countries to students who need a thorough review of the language. Grammar, vocabulary, and syntax are studied using a film-based textbook with simple dialogues, oral and written drills, building conversational skills. The class is conducted mostly in French from the beginning.

FRENCH 1 HONORS
Full Year: 3 credits
This course is designed for students with a strong basic background in French. Emphasis is placed on refining the listening, speaking, and writing skills of the students. Proficiency is honed through work in the Language Center and the use of a variety of multimedia materials that accompany the text. Grammar is reviewed thoroughly. The class is conducted in French from the beginning.
FRENCH 2
Full Year: 3 credits
Prerequisite: Successful completion of French 1, French Review.

This course is the continuation of French 1 and French Review. The basic study of grammar is completed, and reading selections and writing exercises of increasing complexity help students work on their language and conversational skills. The cultural component of this course gives students an understanding of the diversity of France and the Francophone world today.

FRENCH 2 HONORS
Full Year: 3 credits
Prerequisite: Successful completion of French 1 Honors.

This course continues and consolidates the study of grammar. Readings of increasing difficulty are introduced as the basis for expanded written and oral work through task-oriented and creative writing techniques. Texts studied represent a broad spectrum of cultures and ideas across Francophone societies.

FRENCH 3
Full Year: 3 credits
Prerequisite: Successful completion of French 2, French 2 Honors.

Students move from the basic study of French to an introduction to complex syntactical structures. Short readings and skits enrich the understanding of French and they provide the basis for discussions, performances and writing exercises in French.

FRENCH 3 HONORS
Full Year: 3 credits
Prerequisite: Successful completion of French 2 Honors.

This course contains a Service Learning component. Using texts and materials that address contemporary societal trends, this course focuses on learning more about the Francophone world. Oral proficiency is emphasized, grammar is thoroughly reviewed, reading skills are honed and analytical essay writing techniques are introduced. Specific units are devoted to Morocco, connecting with a high school in Marrakech and studying Moroccan Francophone literature, in a curriculum designed to dovetail with the School's Service Learning initiative.

FRENCH 4
Fall, Winter, and Spring Terms: 3-credit sequence
[Full year recommended.]
Prerequisite: Successful completion of French 3.

Cultural and historical Francophone themes are explored through literature, film and music. Critical reading skills continue to be developed using a variety of texts which include novels, short stories, plays and poetry. This course emphasizes analytical discussions, writing assignments and projects. Grammar continues to be reviewed with particular attention to its finer points.

FRENCH 4 HONORS
Fall, Winter, and Spring Terms: 3-credit sequence
[Full year recommended.]
Prerequisite: Successful completion of French 3 Honors.

Using Francophone cinema as a springboard for discussion, this course delves into issues facing the 21st century French-speaking world. Excerpts from literary works and news media will be studied with each film, providing exposure to a wide array of traditions and styles of discourse. One unit is devoted to a study of French-Algerian relations as reflected in literature and film. Oral and aural proficiency are refined in conjunction with rigorous grammar review. Writing skills are honed and broadened.

FRENCH 5
Fall, Winter, or Spring Term: 1 credit
[Full year recommended.]
Prerequisite: Successful completion of French 4.

This course is taught in the same manner as French 4. Students continue to strengthen their reading, writing, listening/understanding and speaking skills. Francophone culture and history provide the context for in-depth discussions and writing assignments on literary works, films and news media.

FRENCH SEMINAR
Fall, Winter, or Spring Term: 1 credit
Prerequisite: Successful completion of French 4 Honors.

Fall Term: Each week of this term is divided into four parts: poetry, current events, literature with emphasis on analysis, and films that explore cultural traits of the Francophone world. Grammar is reinforced on a daily basis. Constant oral participation and analytical essays are part of the work. Songs, featuring musicians from various Francophone countries, are also part of the curriculum.

Winter Term: Theater is the emphasis for this term. Students explore one or a variety of authors and are expected to perform on stage. A collaborative project that explores specific traits linked to the genre as well as an essay on theater are also part of the course.

Spring Term: The history of the European continent is approached during the first part of the term in order to further develop an understanding of the European Union as a political and economic project. Students then work on a Member State of their choice, explore traits that unite its inhabitants through their shared history with others in that part of the world, and deepen their understanding of the values shared by modern Europeans in the Member States.
GERMAN COURSES

GERMAN 1
Full Year: 3 credits
This course offers students an introduction to the language and culture of contemporary German-speaking countries. Grammar, vocabulary, and syntax are studied through oral and written drills and through simple conversations. Work in the Language Center reinforces the development of listening and speaking skills. The class is conducted in German from the beginning.

GERMAN 2
Full Year: 3 credits
Prerequisite: Successful completion of German 1.
This course is a continuation of German 1 and is taught in the same manner. The basic study of grammar is completed, and readings of increasing difficulty are introduced as the basis for expanded oral and written work. By the end of the course, students are able to use workable, basic German in normal situations they encounter and are able to enjoy works written in simple German.

GERMAN 3
Full Year: 3 credits
Prerequisite: Successful completion of German 2.
This is a multifaceted course, designed to introduce students to German culture through literature, history, contemporary politics, music and popular culture. Materials used include shorter literary works such as short stories, novellas, plays and poetry, as well as film and a variety of news media. Proficiency and grammatical accuracy continue to be emphasized through written and oral exercises.

GERMAN 3 HONORS
Full Year: 3 credits
Prerequisite: Successful completion of German 2.
This course is a continuation of German 3 and is taught in the same manner. Students continue to strengthen their four language skills of reading, writing, listening/understanding and speaking. German culture and history provide the context for in-depth discussions and writing assignments on literary works, film and news media.

GERMAN 4
Fall, Winter, and Spring Terms: 3-credit sequence
[Full year recommended.]
Prerequisite: Successful completion of German 3 Honors.
Issues and themes of cultural and historical relevance are explored through literature, film and current events. Critical reading skills continue to be developed using a variety of texts which include plays, lyric poetry, fiction and news articles. The course emphasizes discussion, analytical papers and projects. Grammar continues to be reviewed with particular attention to its finer points and the use of idioms.

GERMAN 4 HONORS
Fall, Winter, and Spring Terms: 3-credit sequence
[Full year recommended.]
Prerequisite: Successful completion of German 3 Honors.
Issues and themes of cultural and historical relevance are explored through literature, film and current events. Critical reading skills continue to be developed using a variety of texts which include plays, lyric poetry, fiction and news articles. The course emphasizes discussion, analytical papers and projects. Grammar continues to be reviewed with particular attention to its finer points and the use of idioms.

GERMAN 5 HONORS
Fall, Winter, and Spring Terms: 3-credit sequence
[Full year recommended.]
Prerequisite: Successful completion of German 4 Honors.
This course is a continuation of German 4 Honors and is taught in the same manner. Students continue to strengthen their four language skills of reading, writing, listening/understanding and speaking. German culture and history provide the context for in-depth discussions and writing assignments on literary works, film and news media.

GREEK COURSES

GREEK 1
Full Year: 3 credits
This course provides an introduction to Attic Greek forms, vocabulary, and grammar, employing readings of graduated difficulty. Students also learn Greek mythology, the historical origins of Greek civilization, the geography of Greece and the eastern Mediterranean, and aspects of daily life in ancient Greece.

GREEK 2
Full Year: 3 credits
Prerequisite: Successful completion of Greek 1.
This course begins with a review of Greek grammar, then introduces the more complex verb forms and dependent clauses using the subjunctive and optative moods. Students learn the history of the classical period, including the Athenian Empire and the Persian and Peloponnesian Wars. Toward the end of the course, students encounter readings from prose authors such as Herodotus, Xenophon, Lysias, and Lucian.

GREEK 3 HONORS
Full Year: 3 credits
Prerequisite: Successful completion of Greek 2.
In the Fall Term this course concludes the introduction to Greek prose with extended readings from texts such as Plato’s dialogues and Thucydides’ History of the Peloponnesian War. In the Winter and Spring Terms students are introduced to Greek poetry through selections from Homer’s Iliad and Odyssey, the lyric poets, or Athenian tragedy and comedy.

GREEK 3 HONORS
Full Year: 3 credits
Prerequisite: Successful completion of Greek 2.
In the Fall Term this course concludes the introduction to Greek prose with extended readings from texts such as Plato’s dialogues and Thucydides’ History of the Peloponnesian War. In the Winter and Spring Terms students are introduced to Greek poetry through selections from Homer’s Iliad and Odyssey, the lyric poets, or Athenian tragedy and comedy.
GREEK 4 HONORS
Fall, Winter, and Spring Terms: 3-credit sequence
[Full year recommended.]
Prerequisite: Successful completion of Greek 3 Honors.
This is a reading course with review of grammar as appropriate. Along with translation, students further their skills in analytical writing. This course may include a variety of advanced readings from epics, drama, philosophy, history, or lyrics at the discretion of the instructor.

JAPANESE COURSES

JAPANESE 1
Full Year: 3 credits
This course offers an introduction to the Japanese language and culture. Basic expressions, vocabulary, grammar and syntax are studied through various oral and written activities assembled under the themes of “encounter” and “awareness.” Basic Japanese word processing will be learned at this time and about 50 kanji (Chinese characters) will also be introduced by the end of the year. The textbook is *Kisetsu 1: Haruchiban*, and additional information on Japanese culture and society will be explored through occasional research projects.

JAPANESE 2
Full Year: 3 credits
Prerequisite: Successful completion of Japanese 1.
This course is a continuation of Japanese 1 and follows the conceptual themes of “discovery” and “environment.” It is project-based in which students are given some freedom and responsibility to plan, execute, and revise their tasks as well as to monitor and evaluate their progress. The varied nature of activities enables students to familiarize themselves with different communication modes and styles both in oral and written production. The study of essential Japanese grammar continues, and the learning of kanji also becomes an integral part of the course. The textbook is *Kisetsu 1: Ginga*.

JAPANESE 3
Full Year: 3 credits
Prerequisite: Successful completion of Japanese 2.
This course provides opportunities for improving both oral and written proficiency through project-based activities. It features a multimedia project in which students present their school in Japanese. Two writing styles, the expository style and the essay style, are introduced and students will write about various aspects of their school in a style suitable to their needs. The project will feature oral productions such as skits and interviews. Proficiency and grammatical accuracy will continue to be emphasized through written and oral exercises and a substantial number of kanji are introduced as well. The textbook is *Kisetsu 2: Ginga and Kisetsu 3: Akimatsuri*.

JAPANESE 4
Fall, Winter, and Spring Terms: 3-credit sequence
[Full year recommended.]
Prerequisite: Successful completion of Japanese 3.
This course offers a continuation of Japanese 3 and is taught in the same manner. Projects at this level include a drama production in which communication between the director and the actors is stressed. Advanced grammar, vocabulary and kanji will continue to be learned. The textbook is *Kisetsu 3: Akimatsuri*.

JAPANESE 5
Fall, Winter, and Spring Terms: 3-credit sequence
[Full year recommended.]
Prerequisite: Successful completion of all three terms of Japanese 4.
The course is designed for students who have completed Japanese 4 and who have been placed out of the four-year sequence because of their extraordinary background in Japanese. The content and materials are adjusted according to the needs and interests of the students.

JAPANESE 6
Fall, Winter, and Spring Terms: 3-credit sequence
Prerequisite: Successful completion of all three terms of Japanese 5.
This course is designed for non-native students who have completed Japanese 5. The content and materials are adjusted according to the needs and interests of the students.

JAPANESE SEMINAR 1
Fall, Winter, and Spring Terms: 3-credit sequence
Prerequisite: Successful completion of all three terms of Japanese 6.
This course is designed for students with near-native fluency in Japanese. Materials are selected from among those intended for native speakers. A substantial amount of reading and writing, as well as research on selected topics, is required.

JAPANESE SEMINAR 2
Fall, Winter, and Spring Terms: 3-credit sequence
Prerequisite: Successful completion of all three terms of Japanese Seminar 1.
This course is designed for students with near-native fluency in Japanese. Materials are selected from among those intended for native speakers. A substantial amount of reading and writing, as well as research on selected topics, is required.
LATIN COURSES

LATIN 1
Full Year: 3 credits
This course provides an introduction to the Latin language and syntax. Graduated readings in Latin explore events in the life of a typical Roman household while also teaching vocabulary, forms, and grammatical constructions. Students also gain an overview of classical mythology, Roman history, daily life, and the geography of the ancient world.

LATIN REVIEW
Full Year: 3 credits
This course is for students who have some background in Latin. Students obtain a solid foundation in vocabulary, forms, grammatical constructions, and reading comprehension. Students also gain an overview of classical mythology, Roman history, daily life, and the geography of the ancient world.

LATIN 2
Full Year: 3 credits
Prerequisite: Successful completion of Latin 1 or Latin Review.
This course begins with a review of material from Latin 1. Students learn more advanced grammatical concepts such as purpose and result clauses, conditional sentences and other uses of the subjunctive, and gerunds and gerundives. Students continue to develop reading proficiency via textual narrative. Students also examine pertinent cultural and historical topics.

LATIN 2 HONORS
Full Year: 3 credits
Prerequisite: Successful completion of Latin 1 or Latin Review.
This course offers an accelerated approach to the language. Emphasis is placed on advanced syntax, including uses of the subjunctive, uses of the cases of nouns, and techniques for translation and reading comprehension. Students study and pursue projects on a wide variety of cultural, historical, and linguistic topics. Toward the end of the course, students encounter readings from prose authors such as Caesar, Livy, and Nepos.

LATIN 3
Full Year: 3 credits
Prerequisite: Successful completion of Latin 2.
This course begins with a brief review of grammar and syntax learned in the previous two years. Students continue to reinforce grammatical concepts and improve their Latin-to-English translation as they read graduated selections from adapted texts by prose authors such as Eutropius, Livy, Nepos, and Caesar. Emphasis is placed on improving sight translation and reading comprehension. The readings also introduce students to major figures, events, and cultural topics from the legends of early Rome and the history of the Roman Republic.

LATIN 3 HONORS
Full Year: 3 credits
Prerequisite: Successful completion of Latin 2 Honors.
This course offers a rapid review of the fundamentals of grammar combined with accelerated readings from a selection of Latin prose authors such as Caesar, Livy, and Cicero. Through these readings students trace Rome's development from city-state to world empire and the concomitant evolution of the constitution from the Monarchy through the Republic to the Principate.

LATIN 4
Fall, Winter, and Spring Terms: 3-credit sequence
[Full year recommended.]
Prerequisite: successful completion of Latin 3.
This is a reading-based course focused on selections from the poetry of Catullus, Virgil, and Ovid. Formal review of advanced grammatical concepts will be provided as necessary. The course provides students with an opportunity to analyze Roman texts as they improve their reading comprehension and sight translation skills. Various cultural and historical projects may include studies of Roman poetry, mythology and love in the Roman world, and the reception of the works read in later artists and authors.

LATIN 4 HONORS
Fall, Winter, and Spring Terms: 3-credit sequence
[Full year recommended.]
Prerequisite: Successful completion of Latin 3 Honors.
This is a reading-based course focused on the historical development and aesthetic principles of Roman poetry. Selections from Catullus, Virgil, Horace, and Ovid provide the basis for class discussions. In addition to poetic scansion and literary devices, students will explore the social, cultural, and political context of these authors.

LATIN 5
Fall, Winter, and Spring Terms: 3-credit sequence
[Full year recommended.]
Prerequisite: Successful completion of Latin 4.
This course introduces students to the comic literature of ancient Rome through advanced readings chosen from comedy, satire, invective, and the novel and culminates in the production of a play in Latin for performance on Anniversary Weekend. Authors read may include Plautus, Terence, Cicero, Horace, Petronius, Seneca, and Apuleius. Students also consult models from Greek literature in English translation and modern plays and films inspired by Roman originals.
**LATIN 5 HONORS**
Fall, Winter, and Spring Terms: 3-credit sequence  
[Full year recommended.]
**Prerequisite: Successful completion of Latin 4 Honors.**
This course introduces students to the comic literature of ancient Rome through advanced readings chosen from comedy, satire, invective, and the novel and culminates in the production of a play in Latin for performance on Anniversary Weekend. Authors read may include Plautus, Terence, Cicero, Horace, Petronius, Seneca, and Apuleius. Students also consult models from Greek literature in English translation and modern plays and films inspired by Roman originals.

**SPANISH COURSES**

**INTRODUCTION TO SPANISH**
Full Year: 3 credits
This class is designed specifically for students interested in learning Spanish who have never studied or been exposed to a language other than English. This class moves at a slower pace than **Spanish 1**; aside from studying language and culture, this small group of students will spend additional time learning skills that are helpful in acquiring a new language. **After Introduction to Spanish**, students progress to **Spanish Review**, and **Spanish 2** for a third year of language.

**SPANISH 1**
Full Year: 3 credits
This course offers an introduction to the language and culture of Spanish-speaking countries. Grammar, syntax and vocabulary are studied through oral and written drills and through simple conversations. Work in the Language Center reinforces the development of listening and speaking skills. The class is conducted mostly in Spanish.

**SPANISH REVIEW**
Full Year: 3 credits
**Prerequisite: Demonstrated ability on placement exam.**
This course offers an introduction to the language and culture of Spanish-speaking countries. Grammar, syntax and vocabulary are studied through oral and written drills and through simple conversations. Work in the Language Center reinforces the development of listening and speaking skills. The class is conducted mostly in Spanish.

**SPANISH 1 HONORS**
Full Year: 3 credits
This course offers a thorough, rapid review of basic Spanish grammar followed by a continuation of intensive grammar and vocabulary studies. Exercises and drills, conducted both in class and in the Language Center, are an integral part of the course. A series of short videos reinforces listening skills and provides a context for dialogues in order to strengthen speaking skills. The course introduces students to the literature and culture of Spanish-speaking countries through a study of short literary selections and articles.

**SPANISH 2**
Full Year: 3 credits
**Prerequisite: Successful completion of Spanish 1.**
This course is a continuation of Spanish 1 or Spanish Review. A study of basic vocabulary and grammar is completed by the end of the year, and there is a greater emphasis on cultural readings and perspectives. Students further develop communication skills and are able to use basic Spanish in varied situations.

**SPANISH 2 HONORS**
Full Year: 3 credits
**Prerequisite: Successful completion of Spanish 1 Honors.**
This intensive course offers a challenging and thorough review of all fundamental Spanish grammar. Advanced vocabulary is introduced, increasing students’ capacity for both oral and written proficiency. The course includes the study of longer selections of Hispanic literature, frequent compositions, and required oral participation.

**SPANISH 3**
Full Year: 3 credits
**Prerequisite: Successful completion of Spanish 2.**
This course is designed to strengthen speaking, listening, reading and writing skills. During the year, students solidify the previously studied grammar and vocabulary and further develop communication skills. Students read and discuss short stories and poems that reflect cultural elements of Spanish-speaking countries.

**SPANISH 3 HONORS**
Full Year: 3 credits
**Prerequisite: Successful completion of Spanish 2 Honors.**
Students in this course are expected to develop a high level of proficiency in Spanish as we emphasize reading, writing, speaking and listening skills. Students read short stories and poems of major Hispanic authors, such as Matute, García Márquez, and Borges. Students participate in daily discussions of the literature, which include the cultural and political contexts of these works. Compositions are assigned regularly. The course also includes an intensive and fast-paced review of Spanish grammar. Proficiency and grammatical accuracy continue to be emphasized through written and oral exercises.

**SPANISH 4**
Fall, Winter, and Spring Terms: 3-credit sequence  
[Full year recommended.]
**Prerequisite: Successful completion of Spanish 3.**
In this sequence of classes, students explore themes of cultural and historical importance through literature, film, and current events. Students are exposed to a diversity of voices and continue to develop reading skills by reading a variety of texts, which include poetry, fiction, and news articles. In addition, students review and strengthen their reading, writing, listening, and conversational skills. Students are expected to participate actively in discussions of literature and culture.
SPANISH 4 HONORS
Fall, Winter, and Spring Terms: 3-credit sequence
[Full year recommended.]
Prerequisite: Successful completion of Spanish 3 Honors.

This sequence of classes introduces students to topics in Latin American culture. Each trimester is dedicated to a geographical area. Fall Term focuses on Mexico and Central America; Winter Term focuses on Cuba; and Spring Term focuses on Argentina. The readings cover a broad chronological scope, as we observe continuities in Latin American culture from the 16th century to the present day. Readings and films explore the pre-Columbian indigenous past; early Spanish-indigenous encounters; the institution of slavery; the Mexican and Cuban revolutions; reflections on Mexican, Cuban, and Argentine national identity; and contemporary politics. Class activities and assignments reinforce grammatical topics. Spring Term focuses more on strategies for expository writing in Spanish. Students will have an opportunity to take the Spanish AP exam.

SPANISH 5
Fall, Winter, and Spring Terms: 3-credit sequence
Prerequisite: Successful completion of all three terms of Spanish 4.

In this course students continue to explore Latin American culture and history through current events, texts, and film. Students are expected to participate actively in discussions in order to continue to strengthen their communication skills. In addition, students further hone their writing skills through weekly compositions.

SPANISH SEMINAR 1
Fall, Winter, and Spring Terms: 3-credit sequence
Prerequisite: Successful completion of all three terms of Spanish 4 Honors.

This course introduces students to major artistic, social, and political issues in Spain from the late 19th century until the present. The bulk of class time is dedicated to the close analysis of literary works, although we also discuss historical events, films, visual arts, music, and contemporary politics and society. Fall Term focuses on three literary innovators of the late 19th and early 20th centuries: Miguel de Unamuno, Emilia Pardo Bazán, and Federico García Lorca. During Winter Term, we study a play, a short novel, and two films about the Spanish Civil War. Several options related to contemporary Peninsular culture are options for Spring Term; in early winter, students vote for their preferred topic.

SPANISH SEMINAR 2
Fall, Winter, and Spring Terms: 3-credit sequence
Prerequisite: Successful completion of all three terms of Seminar 1.

This course consists of three thematically distinct units. In the fall, we combine a reading of the Mexican novel Pedro Páramo with an in-depth study of the contemporary political and humanitarian crisis in Venezuela. The winter term is devoted to an analysis of major works by 20th and 21st century women writers from Latin America and Spain. We conclude the year with the study of several masterpieces of early modern Spain, including the Lazarillo and two of Cervantes’s Exemplary Novels. Contemporary media, including music, journalism, and film, is interspersed in each unit.
The mathematics faculty encourages each student to achieve a working knowledge of and competency in mathematical concepts and related problem-solving strategies. We encourage students to value and develop mathematical habits of mind and to appreciate the role mathematics plays in the world. Teachers promote and maintain classroom environments that encourage student curiosity and responsibility for their own learning.

Students utilize technology in investigation, discovery, analysis, modeling, conjecturing and prediction. We use graphing calculators and computer technologies throughout the curriculum to enhance the learning process. The use of real-world applications illustrates and reinforces mathematical ideas; at the same time, mathematics itself promotes understanding of real-world phenomena.

In addition, students may engage in mathematically oriented extracurricular activities, such as competitions at the local and national level, the School’s Mathematics Society, and peer tutoring.

Enrollment in mathematics courses is subject to permission of the department head.

MATHEMATICS COURSES

**ALGEBRA 1**
Full Year: 3 credits
This course provides students with a solid foundation in their study of mathematics. The course begins with the study of signed numbers, fractions, and operations with literal expressions. We study linear equations, systems of equations, and inequalities. We also consider polynomials, factoring, rational expressions, fractional equations, quadratic equations, and radical expressions. Throughout, applications to problem solving are discussed as a transition into geometry and second year algebra.

**GEOMETRY**
Full Year: 3 credits
*Prerequisite: Successful completion of Algebra 1.*
This course in Euclidean geometry develops a logical and rigorous mathematical system based on definitions, postulates, and theorems. Deductive proof is the backbone of the course, which includes properties of parallel lines, triangle congruence and similarity, polygons, circles, area, and volume. Additional topics include right-triangle trigonometry and coordinate geometry. Computer applications are utilized to enhance understanding of geometric concepts. Concepts from Algebra 1 are reinforced throughout the course.

**ALGEBRA 2**
Full Year: 3 credits
*Prerequisite: Successful completion of Algebra 1 and Geometry.*
Students extend their knowledge of methods, skills, and concepts introduced in Algebra 1. The focus is on functions – linear, quadratic, logarithmic, polynomial, exponential, and rational. Additional topics include the complex number system. Analytic techniques are emphasized. Students are instructed in the use of a graphing calculator, a tool they use to explore and investigate, as well as to model and analyze data. At the end of the fall term students who demonstrate the necessary skills and motivation will transition to Honors level of Algebra 2.

**INTRODUCTION TO STUDY DESIGN AND DESCRIPTIVE STATISTICS**
Fall or Spring Term: 1 credit
*Prerequisite: Successful Completion of Algebra 2.*
Which studies and surveys should we believe? How do we collect and generate reliable data? What are appropriate ways of describing and presenting data? How are statistics erroneously employed to misrepresent reality? This course introduces students to reliable and unreliable ways in which data is collected and generated (through sampling, experimentation and simulation), and how to become literate in reading, displaying and interpreting data and statistics. The course will focus on how data can be used to address real questions and on statistical literacy.

**UNDERSTANDING INFECTION**
Winter Term: 1 credit
*Prerequisite: Successful Completion of Algebra 2 and Introduction to Study Design and Descriptive Statistics.*
In this course students are introduced to the key ideas of statistical inference, mainly using simulations. There are two major themes: confidence intervals based on bootstrap samples and significance tests using randomization distributions. The course focuses on constructing and interpreting confidence intervals, and understanding the mechanics of a significance test, through simulation and statistical literacy.

**PRECALCULUS**
Full Year: 3 credits
*Prerequisite: Successful completion of Geometry and Algebra 2.*
Students strengthen their understanding of previously learned topics in algebra and geometry, and learn new conceptual notions needed for the study of calculus. Topics include trigonometry, conic sections, sequences and series, counting and probability, exponential and logarithmic functions. Graphing technology is used throughout the course to enhance student understanding of mathematical concepts. Real-world applications illustrate and reinforce mathematical ideas. By the end of this course, students will have covered the material for the SAT Level 2 subject test in mathematics.
PRECALCULUS HONORS
Full Year: 3 credits
Prerequisite: Successful completion of Geometry and Algebra 2 Honors.
This is a rigorous course intended for students of demonstrated ability who have the desire and capability to learn and work independently and to think creatively. Students pursue a comprehensive study of the content of Precalculus in greater depth. Additionally, the course includes topics in advanced algebra, mathematical induction, vectors, polar and parametric equations, limits of functions, and rates of change. This material provides a strong preparation for calculus. Mathematical dexterity is a focus, particularly in the writing of proofs and creative problem solving. Applications are used throughout to illustrate concepts.

INTRODUCTION TO PROBABILITY
Spring Term: 1 credit
Prerequisite: Successful completion of Algebra 2.
Questions of probability arise naturally in any number of areas: What is the likelihood that it will rain today? Should I take this bet? What is the chance that the Red Sox will win the World Series? This course is designed to help students answer some of those questions knowledgeably and accurately. Beginning with counting principles, the course progresses through such topics as: conditional probability and independence, random variables, the normal distribution, and the binomial distribution.

MODERN ELEMENTARY STATISTICS
Full Year: 3 credits
Prerequisite: Successful completion of Algebra 2 or Algebra 2 Honors.
Students are exposed to four broad conceptual themes: Exploring data – observing patterns and departures from patterns; Planning a study – deciding what and how to measure; Anticipating patterns – producing models using probability and simulation; and Statistical inference – confirming models. Students participate in several projects, at least one of which will be a service learning initiative. This initiative may involve collecting and analyzing data for a local nonprofit agency. Students who successfully complete this course are prepared to take the AP level of the Advanced Placement examination in calculus in May.

INTRODUCTION TO DIFFERENTIAL CALCULUS
Fall Term: 1 credit
Prerequisite: Successful completion of Precalculus.
This course provides students with an intuitive approach to the fundamentals of differential calculus. Focusing on algebraic functions, we explore limits, leading to the definition of derivative. The rules of differentiation, including the chain rule and implicit differentiation, are developed and applied. The concepts of average and instantaneous rate of change are investigated. Applications of differentiation include optimization, related rates, and curve sketching.

INTRODUCTION TO INTEGRAL CALCULUS
Winter Term: 1 credit
Prerequisite: Successful completion of Introduction to Differential Calculus.
This course is a continuation of Introduction to Differential Calculus. As such, the course limits itself to the study of algebraic functions. We expand upon the differential calculus to introduce the concepts of the finding area under a curve, the integral regarded as the antiderivative, and the Fundamental Theorem of Calculus. Applications of integration are included.

CALCULUS 1 HONORS
Full Year: 3 credits
Prerequisite: Successful completion of Precalculus Honors or final grade of High Honors in Precalculus.
This course is suitable for those students with demonstrated ability and interest in mathematics. A solid working knowledge of algebra, geometry and precalculus is necessary. The course builds a solid conceptual understanding of calculus with a focus on proofs. Topics include limits, continuity, and differentiation techniques of both algebraic and transcendental functions. Some applications of differentiation are introduced. Applications of differentiation include solving optimization problems and related rate problems, curve sketching, and the relationships among position, velocity, and acceleration. Antidifferentiation and the Fundamental Theorem of Calculus are introduced. Further techniques of integration are introduced, including integration by substitution, integration by parts, trigonometric substitutions, and partial fractions. Definite and indefinite integrals are used to explore applications such as distance, area and volumes of solids of revolution. Solutions of simple differential equations are obtained analytically and by using slope fields and Euler’s method. Students who successfully complete this course are prepared to take the AB level of the Advanced Placement examination in calculus in May.

CALCULUS 1-2 HONORS
Full Year: 3 credits
Prerequisite: Grades of High Honors in each of three terms of Precalculus Honors.
This course is designed for the highly motivated mathematics student. Students develop a rigorous, comprehensive study of the concepts and techniques of calculus through a study of theorems, their proofs, and applications. Topics include limits, continuity, and differentiation techniques, applications of differentiation and an introduction to antidifferentiation. Applications of differentiation include solving optimization problems and related rate problems, curve sketching, and the relationships among position, velocity, and acceleration. Further techniques of integration are introduced, including integration by parts, trigonometric substitutions, and partial fractions. Definite and indefinite integrals are used to explore applications such as arc length, distance, area and volumes of solids of revolution. Solutions of simple differential equations are obtained analytically and
using slope fields and Euler's method. An in depth study of sequences and series includes various tests for convergence, and representation of well-known functions expressed as Taylor and Maclaurin series. Techniques of calculus are applied to parametric equations and polar coordinates. Students who successfully complete this course are prepared to take the BC level of the Advanced Placement examination in calculus in May.

**LINEAR ALGEBRA HONORS**

Spring Term: 1 credit

**Prerequisite:** Successful completion of Calculus 1 Honors.

Linear algebra is rich in applications to diverse fields such as economics, the sciences, engineering and computer science. In addition, it has significant applications to other mathematics disciplines such as vector calculus, differential equations, and statistics. The main concepts introduced are the theory of linear equations, matrix algebra and vectors. We apply these concepts to the study of vector spaces, linear transformations and eigenvalue theory. Advanced mathematical software and graphing calculators are utilized in this course. Students learn how to write and read mathematical proofs, while also learning practical applications of linear algebra.

**MATHEMATICS SEMINAR HONORS**

Fall, Winter, or Spring Term: 1 credit

**Prerequisite:** Successful completion of Multivariable Calculus.

Mathematics Seminar Honors is designed to introduce students to post-calculus mathematics. Students learn what mathematics is, what it can do, and what it cannot do. The description for this course is only a guide because it differs from year to year, depending on the interests of the faculty and students. The content of each term is independent of the content of previous terms.

**FINANCIAL ACCOUNTING**

Spring Term: 1 credit

**Prerequisite:** Successful completion of Algebra 2.

An educated person, a decision maker, should understand the concepts of accounting. What do (do not) financial statements – income statement, balance sheet, annual report – communicate? In one term we learn about a sole proprietorship, how to account for its revenues, expenses, assets, liabilities, and equity. Inventory evaluation and depreciation will be studied. Students learn enough to be competent bookkeepers in a family business, and they should be able to analyze the financial statements of some companies. Comparisons to basic partnership and corporation accounting are considered. Although this is not a course on personal finance, as time allows, motivational examples such as investments, loans, and taxes will be included.

**CALCULUS 2 HONORS**

Fall and Winter Term: 2- credit sequence

**Prerequisite:** Successful completion of Calculus 1 Honors.

This course is a continuation of the study of calculus begun in Calculus 1 Honors. Students extend their techniques of integration, solve first order separable differential equations, and learn how to calculate arc length and surface area. Students are given opportunities to explore connections between calculus and other disciplines. Students extend differentiation and integration techniques to polar and parametric functions. An in depth study of sequences and series includes various tests for convergence and representation of well-known functions expressed as Taylor and Maclaurin series. Students who successfully complete this course are prepared to take the BC level of the Advanced Placement examination in calculus in May.

**INVESTMENT MATHEMATICS 1**

Fall Term: 1 credit

**Prerequisite:** Successful completion of Precalculus.

This seminar-style course will begin with an exploration of the broader capital markets and an examination of the fundamental principles of investing (time value of money, efficient market hypothesis, risk vs. return, supply/demand dynamics, market cycles, etc.). The focus will then shift to the technical analysis of single security price data as an ideal application of precalculus and other mathematics. We will filter time series data with moving averages and fit the data with regression curves. We will employ probability to develop cyclical tools such as oscillators to determine investment buy and sell decisions. Students will be responsible for analyzing a specific stock over the course of the term using the tools developed in the class. Throughout the course, there will be an emphasis on relating current events to the financial markets.

**INVESTMENT MATHEMATICS 2**

Winter Term: 1 credit

**Prerequisites:** Successful completion of Precalculus and Investment Mathematics 1.

Building upon the technical analysis done in Investment Mathematics 1, this class explores the power of TradeStation’s software. Students learn about some of the many functionalities TradeStation offers, and apply these to different price series. The class begins to develop strategies by optimizing parameters of basic analysis techniques learned in Investment Mathematics 1. An advanced statistical Walk Forward Analysis is applied to review results. Students also learn how to code using EasyLanguage.
INVESTMENT MATHEMATICS 3
Spring Term: 1 credit
Prerequisites: Successful completion of Precalculus, Investment Mathematics 1, and Investment Mathematics 2.
In this course, students develop hypotheses about what drives the markets from their work in Investment Mathematics 1 and 2. Students use the ability to code, developed in Investment Mathematics 2, to write an algorithmic trading program capturing gains from these observations. Students backtest their programs and evaluate their performance. Filters are used to improve performance as they continue to improve their programming skills. The class incubates algorithms and measure how they perform on real-time data. Students also learn how to manage a portfolio through the application of many different non-correlated algorithms.

MULTIVARIABLE CALCULUS
Fall and Winter Term: 2-credit sequence
Prerequisite: Successful completion of Calculus 1-2 Honors or Calculus 2 Honors.
This course covers the geometry of space, vector functions, functions of several variables, partial derivatives, and double integrals. Other topics covered are multiple integrals, line integrals, parametric surfaces, Green's theorem, Stokes' theorem and the divergence theorem. The course exposes students to powerful mathematical tools with advanced applications in STEAM fields.

MATHEMATICAL PROBLEM SOLVING
Fall Term: 1 credit
Prerequisite: Successful completion of Algebra 2.
Active, regular participation by each student is stressed. The content is flexible to allow the pursuit of topics of interest to members of the class. A fuller understanding of various patterns and methods of mathematical problem solving is developed through a choice of topics involving algebra, geometry, finite mathematics, and probability.

HISTORY OF MATHEMATICS
Spring Term: 1 credit
Prerequisite: Successful completion of Algebra 2.
This term course introduces students to key elements in the progression of mathematical thinking. In working to understand the creation of number systems, learning and applying algorithms for basic computations, studying the writings of various mathematicians and investigating historical problems, students develop a greater insight into the logical development of mathematics. The study of the diverse ways in which people of different cultures approach problems provides students with a more comprehensive understanding of topics introduced in previous courses.
Our mission is to foster fascination and enjoyment in all disciplines of science and to develop competence in scientific reasoning. The Science Department feels strongly that an understanding of scientific principles is essential for responsible citizenship. Learning to identify and collect objective data and quantitatively evaluate information are skills taught at all levels of the science curriculum.

Creativity is an essential aspect of the scientific process. Students are encouraged to realize that rote knowledge of physical laws is secondary to the ability to design an experiment or recognize connections among phenomena. A conceptual appreciation of the behavior of nature is recursively taught and leveraged throughout the core sequence of Physics First, Chemistry, and Biology.

Respect for data and written scientific communication are developed through laboratory exercises and project work. In lab reports, students are taught to accurately analyze collected data through an understanding of the equipment used and concepts involved. Computers, fabrication facilities, the observatory, School grounds, and field trips are all utilized to provide students with experiences and perspectives of the natural world and the changing abilities of humanity.

**Enrollment in science courses is subject to permission of the department head.**

**SCIENCE COURSES**

**PHYSICS FIRST**

Full Year: 3 credits

*Physics First* is designed for all entering Third Form students and forms the first of a three-year foundation series. Classical studies of motion, forces, energy, electricity, magnetism, and sound and light are coordinated with the impact that such knowledge has had in defining the modern technological world that we inhabit. Students explore the beauty and simplicity of the fundamental laws that explain our universe. Since experimentation is key to all science, great emphasis is placed on laboratory work. The use of probes linked to computers allows students to focus on the physical objectives of the experiment while collecting accurate data. In the Fall Term the focus is on Newton’s Laws, momentum and energy, and the interplay between forces and their impact on linear motion. Students are encouraged to ask questions and create projects to seek answers while learning to work together in small groups, allowing for the free flow of creative ideas. In the Winter Term the course progresses to circular motion, designing an experiment to answer a self-created question about force and motion, vibrations and waves (including sound) and electrostatics. Spring Term finds students venturing into the study of electromagnetic fields, electrical circuits, motors, and generators, and an intensive series of investigations into the properties of light and optics. The final assessment in Physics First is a group-based project based on real life applications of a physical problem, with a formal poster presentation and peer review.

**PHYSICS**

Full Year: 3 credits

[Not available to students who have successfully completed Physics First.]  
**Prerequisite:** Co-enrollment in Algebra 2 or higher.

Students investigate the physical world using both traditional and computer-based data acquisition and analysis. This course introduces students to the major topic areas of physics, focusing on conceptual understanding and analytical problem-solving techniques. Extensive laboratory explorations, performed in small groups, are used to introduce concepts, which are then reinforced through discussion and problem work. Incorporating a more mathematical approach than Physics First, Physics begins with the study of mechanics including uniform motion, Newton’s Laws, momentum, energy, circular motion and gravitation. This is followed by electrostatics, magnetism, DC circuits, and wave motion, including resonance, sound, and wave optics. The Spring Term concludes with the study of ray optics as students experiment with mirrors and lenses and more complex optical devices. A working knowledge of algebra is assumed.

**PHYSICS 2: LIGHT AND OPTICS**

Fall Term: 1 credit

**Prerequisite:** Successful completion of a year-long physics course.

Students will investigate the phenomenon of light as both a particle and a wave. They will build on their previous understanding of the electromagnetic spectrum to examine topics including wave interference, diffraction, and optics. Through hands-on inquiry experiences, data collection experiments, and project-based learning, students will learn through a variety of teaching and learning techniques.

**PHYSICS 2: FLUID AND THERMODYNAMICS**

Winter Term: 1 credit

**Prerequisite:** Successful completion of a year-long physics course.

Students will investigate the physics of fluids and heat. They will build on their previous understanding of the waves and heat to examine topics including pressure-volume-temperature relationships in fluids, the laws of thermodynamics, and the methods of energy transfer. Through hands-on inquiry experiences, data collection experiments, and project-based learning, students will learn through a variety of teaching and learning techniques.
PHYSICS 2: SUBATOMIC, QUANTUM, AND RELATIVITY
Spring Term: 1 credit
Prerequisite: Successful completion of a year-long physics course.

Students will investigate a few of the branches of modern physics. They will build on their previous understanding of physics to examine the areas of subatomic physics, quantum physics, and special and general relativity. Through hands-on inquiry experiences, data collection experiments, and project-based learning, students will learn through a variety of teaching and learning techniques.

HONORS PHYSICS
Full Year: 3 credits
Prerequisite: Co-enrollment in a year-long calculus course, or successful completion of a year-long calculus course.

Fall Term: Mechanics. A calculus-based introduction to Newtonian Mechanics for students with strong math backgrounds who are seeking a deeper understanding of their physical world. Topics include linear and projectile motion, Newton's Laws, energy, and momentum. Laboratory exercises and classroom demonstrations are used throughout the course to solidify conceptualization and instill respect for data. Concepts are also strengthened through work in group tutorials developed specifically for students at this level as well as student-driven projects at the conclusion of the term.

Winter Term: Electricity and Magnetism. A calculus-based introduction to Electricity and Magnetism for students with strong math backgrounds who are seeking a deeper understanding of their physical world. Topics include electrostatics, circuits, magnetism, and electromagnetic induction. Laboratory exercises and classroom demonstrations are used throughout the course to solidify conceptualization and instill respect for data. Concepts are also strengthened through work in group tutorials developed specifically for students at this level as well as student-driven projects at the conclusion of the term.

Spring Term: Extended Topics. A calculus-based introduction to non-linear physical motion for students with strong math backgrounds who are seeking a deeper understanding of their physical world. Topics will build off of the previous terms of Honors Physics and will include rotational motion, simple harmonic motion, waves and light. Laboratory exercises and classroom demonstrations are used throughout the course to solidify conceptualization and instill respect for data. Concepts are also strengthened through work in group tutorials developed specifically for students at this level as well as student-driven projects at the conclusion of the term.

ADVANCED PHYSICS
Full Year: 3 credits
Prerequisite: Successful completion of a full year of calculus and physics courses.

Fall Term: Motion. This is a college-level course that includes an in-depth look into Newtonian Mechanics and relies heavily on the use of calculus. Topics include linear and projectile motion, Newton's Laws, and momentum. Laboratory exercises and classroom demonstrations are used throughout the course to solidify conceptualization, build theoretical modeling skills, develop explanations, and instill respect for data. Computer programs (such as excel and python) are used for data analysis, mathematical modeling and numerical integration. Concepts are also strengthened through work in group tutorials developed specifically for students at this level. Students develop writing skills to produce journal-quality lab reports.

Winter Term: Energy and Electricity. This is a college-level course that relies heavily on the use of calculus. Topics include Energy, Rotational Motion, Electric Fields and Circuits. Laboratory exercises and classroom demonstrations are used throughout the course to solidify conceptualization, build theoretical modeling skills, develop explanations, and instill respect for data. Computer programs (such as excel and python) are used for data analysis, mathematical modeling and numerical integration. Concepts are also strengthened through work in group tutorials developed specifically for students at this level. Students develop writing skills to produce journal-quality lab reports.

Spring Term: Magnetism and Projects. This is a college-level course that relies heavily on the use of calculus. Magnetism and Induction is explored early in the term. The latter half of the term is used for real-world applications of knowledge and skills that have been developed all year. Laboratory exercises and classroom demonstrations are used throughout the course to solidify conceptualization, build theoretical modeling skills, develop explanations, and instill respect for data. Computer programs (such as excel and python) are used for data analysis, mathematical modeling and numerical integration. Concepts are also strengthened through work in group tutorials developed specifically for students at this level. By the end of the term, students will be producing journal-quality lab reports.
CHEMISTRY
Full Year: 3 credits
This course emphasizes scientific observation and investigation. Chemical principles and concepts are introduced through laboratory experiments and are expanded in lecture and class discussion. Students learn to observe, question, test, problem solve and draw conclusions. Selected experiments require both cooperative and individual investigation. Topics include properties of matter, bonding, chemical periodicity, stoichiometry, thermochemistry, kinetics, acids and bases, equilibria, and oxidation-reduction. This course is taken prior to taking Biology.

HONORS CHEMISTRY
Full Year: 3 credits
This course is an introductory chemistry course that will cover an expanded curriculum of chemistry. The final grade in Honors Chemistry will consist of term work, cumulative exams, and a lab practical. Topics include properties of matter, bonding, chemical periodicity, stoichiometry, thermochemistry, kinetics, equilibria, acids and bases, and oxidation-reduction. The expectations and pace of the course prepare students for the SAT Chemistry Subject Test. This course is taken prior to taking Biology.

CHEMISTRY 2: QUANTITATIVE ANALYSIS
Fall Term: 1 credit
[Not open to students who have taken Advanced Chemistry.]
Prerequisite: Advanced Chemistry or successful completion of Chemistry with a final grade of Honors or higher.
How do chemists determine how much of a substance is present in a sample of unknown composition? In this laboratory-based course students will study various methods of quantitative analysis, including titration, gravimetric analysis, and spectrophotometry to gain a better understanding of analytical chemistry.

CHEMISTRY 2: ORGANIC CHEMISTRY
Winter Term: 1 credit
Prerequisite: Advanced Chemistry or successful completion of Chemistry with a final grade of Honors or higher.
This laboratory-based course introduces students to organic nomenclature and the chemical and physical properties of fundamental functional groups including hydrocarbons, alcohols, carboxylic acids, and esters. Properties of biochemical compounds such as fats, oils, and carbohydrates will also be examined.

CHEMISTRY 2: REACTION RATES AND EQUILIBRIUM
Spring Term: 1 credit
[Not open to students who have taken Advanced Chemistry.]
Prerequisite: Advanced Chemistry or successful completion of Chemistry with a final grade of Honors or higher.
This course expands on the basic knowledge of reaction rates and equilibrium developed in first-year chemistry. Through experimentation students will be introduced to rate laws and mechanisms as well as special applications of equilibrium including buffer solutions and solubility equilibria.

ADVANCED CHEMISTRY
Full Year: 3 credits
Prerequisite: Successful completion of a full year of Chemistry with a grade of High Honors and a full year of Honors Chemistry with a grade of Honors or better.
Fall Term: Intended for those students who desire a more challenging study of chemistry, this advanced course parallels that of a college chemistry course and prepares students for the Advanced Placement examination in chemistry. The course builds on the concepts developed in Chemistry or Honors Chemistry, going into greater depth and detail. The course challenges students in the laboratory and emphasizes cooperative learning through problem solving and laboratory investigations. Areas of study in the fall term include a review of stoichiometry, atomic structure, chemical bonding, molecular geometry, and properties of matter including gas laws, intermolecular forces, and solutions. The laboratory portion of Advanced Chemistry is designed to introduce students to the techniques used in analytical chemistry.
Winter Term: Areas of study in the winter term include kinetics, chemical equilibria, acid-base chemistry, solubility equilibria, and thermochemistry. Students are expected to refine their analytical techniques in the laboratory.
Spring Term: Areas of study in the spring term include oxidation-reduction and organic chemistry. The Fall and Spring terms are reviewed to assist students in preparing for the Advanced Placement examination in chemistry. The laboratory portion of the spring term provides an introduction to organic chemistry.

BIOLOGY
Full Year: 3 credits
Prerequisite: Successful completion of Chemistry, and Physics First or Physics.
Biology is designed to build on the physics and chemistry knowledge base while developing an inquiring point of view toward living systems in the context of a changing environment. Laboratory experiments heighten and integrate events at the molecular, cellular, and population levels of organization. Specific topics include cell structure and function, biochemical mechanisms, genetics, evolution, systems, and ecology. Scientific thinking and communication are emphasized throughout the course.
MOLECULAR BIOLOGY
Full Year: 3 credits
Prerequisite: Successful completion of Chemistry and Biology.

Fall Term: Genetics and Genome, Organization and Evolution. This is an upper-level biology course designed to provide an understanding of cell biology with an emphasis on molecular genetics. The course begins with a review of biochemistry, followed by an exploration of mitosis, meiosis, cancer genetics, DNA replication, DNA repair, epigenetics, and the central dogma of modern genetics.

Winter Term: Techniques in Molecular Biology. Exploration into Mendelian genetics and inheritance is followed by the genetic basis for human disease. The students will develop and refine their skills in molecular techniques including transformation of bacteria through genetic manipulation, conjugation, DNA cloning, and analysis of DNA using restriction enzymes, electrophoresis, and PCR.

Spring Term: Applied Genomics. The third term in the molecular sequence, applied genomics will build upon the students’ understanding of theory and techniques. The students will identify a question they want to investigate and design a research plan based on the techniques they have mastered over the course of the year. The class will review the proposals and one will be selected and carried out based on merit and interest. Discussions about bioethics will be interspersed throughout the spring term.

MARINE BIOLOGY: OPEN OCEAN
Winter Term: 1 credit
Prerequisite: Successful completion of Chemistry and Biology.

This course examines the open ocean in all its vastness, depth and power. Creatures of the open ocean will be at the heart of this course including marine mammals and deep-sea inhabitants. Ocean currents, tides and water movement will be examined as we consider the role humans play in this gigantic ecosystem. Mammalian diving physiology will also be studied and as part of this course students will have the opportunity to participate in a PADI approved confined water SCUBA certification program. Dive lesson will be conducted by a PADI certified Dive Master and will take place in the Ma swimming pool.

MARINE BIOLOGY: COASTAL BIOMES
Spring Term: 1 credit
Prerequisite: Successful completion of Chemistry and Biology.

This course examines the marine environments closer to shore including coral reefs, mangroves, estuaries and rocky coastlines. Students will learn how to identify fish, study the interconnectedness of the sea and the land and investigate the complex relationships found in each of these biomes. Human influence and fisheries management will be major themes throughout the term. Field trips include a trip to the New Hampshire coastline, New England Aquarium and a five-day excursion to the Island School in the Bahamas.

GLOBAL BIODIVERSITY
Spring Term: 1 credit
Prerequisite: Successful completion of a year-long chemistry course and completion of or co-enrollment in a year-long biology course.

Of what value is biodiversity? How should we treat non-human species? Is the conservation of biology a worthwhile endeavor? As inhabitants of the only planet known to support life, such questions deserve our consideration. Global Biodiversity will examine the implications of humanity’s capacity to be stewards of our planet and what role, if any, should be our privilege to uphold. We will draw primarily from the natural sciences, but areas of study will also include philosophy, economics, and religion. Laboratory investigations will be a significant component of our study. One investigation will examine how potential pharmacological treatments might be unlocked from compounds found deep inside tropical rainforests. Our capstone research project will be to contribute data as citizen scientists to the world’s largest biodiversity genomics initiative ever undertaken—the International Barcode of Life Project. We will seek to generate reference DNA barcode sequences for species as yet unrepresented in this ever-growing genetic catalog of multicellular life on our planet. If successful, the class will publish their data in the Barcode of Life Data Systems (BOLD) and the world’s repository of genetic information, the international Nucleotide Sequence Data Collaboration (INSDC).
ADVANCED BIOLOGY: HUMAN ANATOMY & PHYSIOLOGY
Full Year: 3 credits
Prerequisites: Successful completion of Biology and Chemistry.

Fall Term: What does it mean to be healthy? The fall term creates the foundation for the entire academic year of this course. Students will study cell biology, biochemistry, tonicity, feedback loops, and the molecules essential for life. These concepts will be explored through the understanding of tissues, blood, vital signs, and the digestive system. Laboratory investigations include microscopy, dissection, and a lab investigation that explores vital signs and how the body maintains homeostasis. Students will read original research, design their own lab experiments, and will make connections of the concepts studied to the bigger picture of how the body works through scientific writing.

Winter Term: How does the body transport molecules that are essential for life? During the winter term, students will study the cardiovascular, respiratory, and immune systems. Laboratory investigations include microscopy, dissections, and a lab investigation that explores pathogens in the surrounding environment. Students will read original research, design their own lab experiments, complete case studies, and will make connections of the concepts studied to the bigger picture of how the body works through scientific writing.

Spring Term: Amazing things that the human body can do. During the spring term students will study the endocrine, nervous, renal, and reproductive systems. Laboratory investigations include microscopy, dissections, and a lab investigation that explores how the body regulates blood glucose. Students will read original research, design their own lab experiments, complete case studies, and will make connections of the concepts studied to the bigger picture of how the body works through scientific writing.

EXERCISE PHYSIOLOGY: CARDIORESPIRATORY ADAPTATIONS TO EXERCISE
Winter Term: 1 credit
[Students taking the full-year Human Anatomy & Physiology course should not enroll in this term course.]
Prerequisites: Successful completion of Biology and Chemistry.

How does exercise alter our cardiorespiratory physiology and health? This is a one-term, upper level biology course. Students begin the term by investigating normal cardiorespiratory function and health. This is followed by an exploration of the cardiorespiratory responses to acute exercise, as well as the physiological adaptations to chronic exercise (training) and selected stressors such as high-altitude training, aging and disease. Laboratory investigations include anatomical dissections, blood pressure, electrocardiogram and pulmonary analyses, and treadmill measurements of oxygen consumption (VO2) and anaerobic threshold. Students will research and investigate the effects of one selected stressor on cardiorespiratory function and report their findings in end-of-term presentations or portfolios.

EXERCISE PHYSIOLOGY: NEUROMUSCULAR ADAPTATIONS TO EXERCISE
Spring Term: 1 credit
Prerequisites: Successful completion of Biology and Chemistry.
[Students taking the full-year Human Anatomy & Physiology course should not enroll in this term course.]

How does resistance training and exercise alter neuromuscular physiology and health? This is a one-term, upper level biology course. Students begin the term by investigating how skeletal muscle normally develops and functions. This is followed by an exploration of the neuromuscular responses and physiological adaptations to chronic exercise (resistance training) and selected stressors, including use of muscle building aids and supplements, as well changes in muscle physiology with aging and disease states. Laboratory investigations include anatomical dissections, muscle metabolism and fiber type assessment, and measurements of muscular strength, endurance and flexibility. Students will investigate, evaluate and compare reports of muscle physiology changes presented in the popular press with research published in scientific literature.

TERRESTRIAL ECOLOGY
Full Year: 3 credits
Prerequisite: Successful completion of Chemistry and Biology.

Fall Term: Cycles and Seasons. Students will be introduced to the basic concepts that inform issues in environmental science. Core concepts include an introduction to geology and a review of basic biology and chemistry through the field of biogeochemistry. The term will end with an introduction to soil biology and environmental issues related to agriculture.
Winter Term: The Sustainable Society. Students will focus on human aspects of environmental science. The term will begin with a discussion of the ecological consequences of human over-population. From here, we will move towards aligning economic theory with sustainable development at a local, national, and global scale. Lastly, in the context of sustainable development we will discuss the social, technical, and ecological aspects of energy development and usage on a global scale.

Spring Term: Understanding Climate Change. Students will begin by looking at land use history at St. Paul’s and the New England region. We will move from this historic perspective to a more modern look at forestry and land use practices throughout the region, utilizing our extensive grounds as a living laboratory. Lastly, we will spend time working through the major causes and consequences of climate change while students are designing and conducting independent research projects that should integrate the major themes of the course.

INTRODUCTION TO ASTRONOMY
Fall or Spring Term: 1 credit
[May include a Service Learning component.]
This is a one-term course that is designed to give students an introduction to observational astronomy. In the classroom, the basic principles of astronomy are taught, including the layout of the heavens, a study of the Solar System, a history of astronomy, and the basic principles of telescopes. At the Hawley Observatory, students work independently at least one clear night a week learning the constellations, phases of the moon, and how to use a telescope to find objects that are invisible to the naked eye. Upon completion of this course, students are then encouraged to take Stellar Astronomy and Galactic Astronomy.

STELLAR ASTRONOMY
Winter Term: 1 credit
Prerequisite: Successful completion of Introduction to Astronomy.
[May include a Service Learning component.]
This course builds upon the Introduction to Astronomy course and is focused upon the nature of stars in our universe as we know it. During the regularly scheduled daytime classes, students will study the sun, how stars evolve, and how spectra are used to determine the properties and components of stars. A minimum of one clear night a week will be spent at the observatory collecting observations that will be used to complement the study of stars. Full use of the Hawley Observatory telescopes is available. Additional equipment used to support student-initiated projects includes digital cameras, filters, and sophisticated software for image processing.

GALACTIC ASTRONOMY
Spring Term: 1 credit
Prerequisite: Successful completion of Introduction to Astronomy.
[May include a Service Learning component.]
This course builds upon the Introduction to Astronomy course and is focused upon the nature of galaxies in our universe as we know it. During the regularly scheduled daytime classes, students will study the variety of galactic structures in our universe and how those structures might have evolved since the Big Bang. A minimum of one clear night a week will be spent at the observatory collecting observations that will be used to complement the study of galaxies. Full use of the Hawley Observatory telescopes is available. Additional equipment used to support student-initiated projects includes digital cameras, filters, and sophisticated software for image processing.

SCIENCE ON A SPHERE: MEDIA AND DATASET CREATION
Spring Term: 1 credit
St. Paul’s Lindsay Center for Mathematics and Science is home to one of the National Oceanographic and Atmospheric Administration’s (NOAA) Science on a Sphere (SOS). Using NOAA’s custom SOS software operating in an Ubuntu Linux environment, students will create datasets in collaboration with teachers from any department for use in classes or other aspects of school life. This interdisciplinary experience will also include an introduction to the system’s hardware, operation, and maintenance. No prior programming experience required.

INTRODUCTION TO ARTIFICIAL INTELLIGENCE
Fall, Winter, or Spring Term: 1 credit
This course examines classical artificial intelligence topics such as knowledge representation; search algorithms; and learning expert systems are explored. Students read Alan Turing’s seminal 1950 paper on Computing Machinery & Intelligence and investigate definitions of intelligence. The possibilities for understanding language, thought, and consciousness are studied. Students also learn the non-procedural computer language COMMON LISP and become proficient at developing recursive problem-solving and search programs. Although computers are used extensively throughout the course, prior programming experience is not necessary.
ARTIFICIAL INTELLIGENCE & ROBOTICS
Winter Term: 1 credit
[Introduction to Artificial Intelligence is recommended.]
Students work on studying and developing Autonomous Robotic systems. The VEX Robotics Systems and the EasyC programming System are used to create simple systems. As the students progress to more complex Robotics projects the FIRST Robotics and Arduino Control systems and a variety of programming languages and sensors are used to create more complex systems. The students continue learning new material through seminars while working individually or in small teams, applying the principles learned earlier in the course in a major project of their choice. Although computers are used extensively throughout the course, prior programming experience is not necessary.

ARTIFICIAL INTELLIGENCE SEMINAR
Spring Term: 1 credit
[Introduction to Artificial Intelligence and Artificial Intelligence & Robotics are recommended.]
During this course students read extensively in the area of AI and philosophy to develop a deeper understanding of consciousness and intelligence. Students read (R.U.R. and I, Robot) and watch (Blade Runner and 2001: A Space Odyssey). They also study books and movies from Daniel Dennett, Douglas Hofstadter, Rodney Brooks, and Ray Kurzweil. In addition students propose and then work on advanced projects as well as a final paper on their own opinions concerning the big questions of artificial intelligence. The class visits engineering and AI labs at MIT. Although computers are used extensively throughout the course, prior programming experience is not necessary.

INTRODUCTORY PROGRAMMING
Fall, Winter, or Spring Term: 1 credit
This course is designed to satisfy the need for a stand-alone one-term introduction to computer systems, computer applications, and computer programming. JAVA language is used to introduce concepts of structured programming and algorithmic problem solving. JAVA language is being used on Advanced Placement Computer Science exams, as it is the most popular introductory programming language at the college level. The program includes top-down and bottom-up development, troubleshooting, self-documenting program development, and object-oriented programming. Upon completion of this course, students will understand how computers work, how to use algorithmic problem solving to handle large projects, and how to program complete web-based JAVA Applets.

COMPUTER SCIENCE TOPICS
Fall, Winter, or Spring Term: 1 credit
Prerequisite: Successful completion of Introductory Programming.
Computer Science Topics is a multi-threaded course, offered in multiple terms. The curriculum is student-driven and based on interest and experience. The course may include (but is not limited to) the following:
- Data structures and system design
- Computer logic and machine design
- Computer game programming
- Smartphone App development and database design
- Student-proposed software engineering project

ENGINEERING DESIGN [1–3]
Fall Term: 1 credit
This course can be taken up to three times, in order to broaden a student’s experience at solving problems using the engineering-design process. Students taking the course a second and third time are expected to work on more advanced projects and serve as teachers/mentors to the new students.

Students will learn about engineering design and build small robot systems using the VEX and FIRST Robotics Control Systems and the EasyC and WindRiver C++ Programming systems. Students will learn and practice the problem-solving concepts by creating invention proposals for the Lemelson-MIT InvenTeam Competition. They will also work with the previous year’s FIRST Robotics Competition project in order to familiarize themselves with the skills and timetable required to create a competition entry. Students will learn how to brainstorm and manage a project, how to program a robot, and how to use the AutoDesk Inventor CAD program to virtually create and test a design. Students will use the MIT 2.007 Design and Manufacturing course notes to learn about basic machine components, and will build robust structures using the 80/20 modular construction system. This course is also used for students working on actual Lemelson-MIT InvenTeam project work (should we win another InvenTeam Grant).

USFIRST ROBOTICS ENGINEERING TEAM [1–3]
Winter Term: 1 credit
This course can be taken up to three times, in order to broaden a student’s experience at solving problems using the engineering-design process. Students taking the course a second and third time are expected to work on more advanced projects and serve as teachers/mentors to the new students.

This Winter Term course affords students the opportunity to work with those students who are enrolled in the Engineering Design full-year course sequence, which provides a complete introduction to robotics and engineering. Near the start of the Winter Term, specifications for the FIRST competition will be received and studied. In January, the students will travel to the kickoff event in Manchester to learn about the new challenge.
The remainder of the Winter Term will be spent designing, manufacturing, and programming the team's entry. At the end of the Winter Term, the team will enter its Robot in various regional competitions. This course is also used for students working on Lemelson InvenTeam project work. This Winter Term course also provides students who have completed the full-year course sequence the opportunity to repeat their involvement in the competition during a following Winter Term. The course may, therefore, be taken more than once during a student's career at St. Paul's School. To learn more about the SPS Robotics Team, please go to the robotics.sps.edu website.

ENGINEERING PROJECTS [1–3]

Spring Term: 1 credit

Prerequisites: Successful completion of any one of the following: Engineering Design; USFIRST Robotics; or Artificial Intelligence & Robotics.

This course can be taken up to three times, in order to broaden a student's experience at solving problems using the engineering-design process. Students taking the course a second time are expected to work on more advanced projects and serve as teachers/mentors to the new students. The Spring Term course allows students to work on large-scale projects primarily involved with robotics. Students will brainstorm, design, build, and test a complete Robotic system, using either the VEX or FIRST Robotics Control Systems and the EasyC or WindRiver C++ programming systems. This time can be used to perfect the design of the Winter Term competition machine, or even to compete in next levels of the competition, should we do well at the regional competition during the Winter Term. This course is also used for students working on Lemelson InvenTeam project work.

BIOMIMETICS IN ENGINEERING AND ARCHITECTURE

Winter Term: 1 credit

In this course students will explore the form and function of nature's biological models and systems in order to research and develop conceptual designs in engineering and architecture for the purpose of solving complex human and environmental issues. While learning the history of biomimetics, students will utilize both traditional and contemporary drafting and modeling techniques to render their designs from concept to construction.

ADVANCED ENGINEERING

Spring Term: 1 credit

[This course is the entry to the Engineering Honors Program.]

Prerequisites: Successful completion of Physics, Physics First, or Chemistry and at least one engineering, computer science, or artificial intelligence course.

During the fall of the Fifth Form year, interested students must fill out an application with their parents, indicating their interest in finding a university engineering lab willing to provide each of them with a summer internship opportunity. Parents must be prepared to arrange the necessary accommodations to allow their daughter or son to work in a university laboratory environment. The application must also demonstrate the student's experience and interest in engineering. Students whose applications are accepted by the Engineering Honors Committee will attend fall and winter seminars designed to support them in their search for acceptable internships. Students who have met all of the periodic milestones in this process and have secured acceptable internship positions by the end of the Winter Term will be accepted into this Advanced Engineering course.

Due to the involved nature of this process, students must sign up for an alternate Spring Term course, which will be dropped if the student is accepted into the spring Advanced Engineering course (in a manner similar to the Independent Study Program application process).

ENGINEERING HONORS

Fall, Winter, or Spring Term: 1 credit

Prerequisite: Admission to the Engineering Honors Program.

The course allows an opportunity for depth and personal development for students who have shown an interest in engineering and technology at the School. Addressing the interests of each student, the program is designed to create further chances for exploration in the field, leading to the successful completion of a research internship in engineering/technology and preparing interested students to continue their engineering study at the college level and beyond.

With an approach that consists of three parts, the honors program advances the Engineering Design curriculum already in place at the School. Fifth Form students accepted into the program will complete an Advanced Engineering course designed to prepare them to be productive members of university engineering laboratories. The program faculty at SPS will provide support for students as they seek summer internships in these college settings. The experience culminates with a Sixth Form engineering capstone project that combines weekly seminars for all participants, poster sessions for students to share their summer research, and the chance to continue that research at St. Paul's or to pursue and complete an engineering design project of their own choice – all with faculty supervision.
Interdisciplinary courses are designed to more fully integrate understandings from multiple disciplines. Having established proficiency with the habits of mind and skills of the traditional disciplines, students in these courses are presented with an opportunity to form stronger connections between multiple areas of study and ways of thinking. These courses are created collaboratively by teachers in different departments, exemplifying how we want our own students to work with one another.

Enrollment in interdisciplinary courses is subject to permission of the Dean of Studies.

INTERDISCIPLINARY STUDIES COURSES

FROM STORY TO SCREEN
Spring Term: 1 credit
In this interdisciplinary course offering between the Humanities and Theatre Departments, students will explore, analyze, and ultimately execute the journey a piece of literature takes as it moves from story to screen. In the first half of the term, students will read short stories such as Truman Capote’s Breakfast at Tiffany’s, Philip K. Dick’s “The Minority Report,” and Stephen King’s “Rita Hayworth and Shawshank Redemption” that have been adapted into feature films. Students will also watch these films, analyzing the artistic decisions made at each step. Using what they have learned in the first half of the course, students will spend the second half of the term working collaboratively to select a story and produce a short film based on this short story.

IN TUNE WITH NATURE
Spring Term: 1 credit
Prerequisite: Successful completion of, or currently enrolled in, Biology.
This course will be a literary and scientific study of the natural world. Looking closely at the natural world around us, journaling about our own observations, and conducting scientific field studies are the essentials of this course, as we read and discuss the work of a number of nature writers to help inspire our own writing and reflection. How can we learn to become more environmentally aware through our close observations, labwork, reading, and discussions about nature? What makes celebrated nature writers and why are they such accomplished writers? How do we model that in our own writing? What changes could the SPS community make to become a more self-sustaining community? How do we become agents for change? Students will explore these and other questions.
EIGHT SCHOOLS ASSOCIATION (ESA)

EIGHT SCHOOLS ASSOCIATION COURSES

The Eight Schools Association (ESA) offers several online courses that increase independent learning opportunities through a blend of synchronous and asynchronous learning. To enroll in an ESA course students must receive final approval from the Dean of Studies. Only sixth form students are eligible for these courses and they may take only one ESA course per term. These courses appear on our SPS transcript with a grade of Satisfactory or Unsatisfactory. Students also will receive a transcript from the host school based on the host school’s grading system.

Enrollment in ESA courses is subject to permission of the Dean of Studies.

ESA COURSES

BEGINNING ARABIC

Full year: 3 credits

This course is a team-taught online class that integrates synchronous and asynchronous web tools in teaching and learning. Students work with a variety of online media to master the Arabic alphabet and sounds, build vocabulary, develop speaking and listening skills, and acquire grammar concepts at the basic level. Students learn how to speak about themselves, their families and their environment, to initiate and sustain conversations, and to compose several paragraphs related to their daily routine. Students also read authentic short texts on familiar topics and discuss their main ideas. This course focuses on Modern Standard Arabic with an exposure to Levantine colloquial through music, songs, and short videos. By the end of the course, students gain a solid command of linguistic structures and skills in Modern Standard Arabic at the basic level as well as a deeper understanding and appreciation of Arab culture and art. Students’ progress is assessed through performance on weekly assignments and projects. This course is taught by a teacher from Choate Rosemary Hall and another from Deerfield Academy.

DESTRUCTION OF SLAVERY

Winter term: 1 credit

In this course students consider how the Republican Party dealt with issues of slavery and race from 1850-1870. Students examine a wide variety of primary source documents each week and engage with the scholarship of Lincoln Prize-winning historian James Oakes. Discussions strive to place the Republicans in the context of their day, offering particular attention to the often-complicated legal arguments that preceded the formal abolition of slavery in 1865. At the center of the course is the much debated question of “who freed the slaves?” The class is taught by a teacher from Lawrenceville, with discussions and student collaboration occurring online each week.

THEATER HISTORY

Spring Term: 1 credit

Through this online class, students explore the history of the theater from the ancient to the modern world. Through an analysis of significant productions – from The Bacchae at the Theater of Dionysus in 405 B.C. Athens, to Noh theater in the shogun court of 14th century Japan, to Show Boat on Broadway in 1927 – the course introduces students to key moments and movements in theater history. Students investigate developments in stage architecture, the shifting “place” of the stage within culture, and the changing styles and methods of production. Students examine materials ranging from set designs and costume sketches, to historical diaries, photographs, newspaper reviews, and dramatic texts. Students are required to participate with their teacher and classmates in online discussions, write a series of reaction pieces, design theater-of-the-future independent project, and produce a significant independent project pursuing advanced exploration of a single figure, production or moment in theater history. This course is taught by a teacher from Choate Rosemary Hall.
WATER AND HUMANITY
Winter and Spring Terms: 2 credits

This two-term course examines the dynamic and tenuous relationship between water resources and human development. Looking at water from a multidisciplinary perspective, this course enables students to think more critically about the central role water has played and must continue to play in the viability and vitality of all civilizations. Students encounter diverse materials, use holistic approaches, and engage in innovative project planning to consider, understand, and propose solutions to complex water issues. This course uses a “flipped classroom” approach to learning and assessment. The course includes student-to-student videoconferencing, guided lessons, and collaboration with other students and teachers in the ESA. The course involves both synchronous and asynchronous learning through online video-conferencing, online discussions, and collaboration. There will also be necessary field research and a capstone project in the Spring Term.

The course focuses on the value of water and water issues within the contexts of religious ceremony, the human-water relationship in fine art and architecture, national and imperial infrastructure, and industrial development. This interdisciplinary, project-driven course encourages students to think about the place of water in their own local, regional, and global communities, while researching and proposing their own solutions to complex multidisciplinary water issues. Through collaborative projects with all the schools in the ESA, students enjoy the advantages of this online and interdisciplinary endeavor.
Course Descriptions 2017-18