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Curricular Vision

Belmont Hill School strives to give its students a rigorous program of study that provides a firm grounding in skills, values, and vital content while also including curricular and pedagogical innovation that will make its students well prepared to thrive in the complex, fast-changing world in which they live today and will work tomorrow.

The curriculum provides our students with a modernized liberal arts education rooted in traditional and innovative coursework. It includes required classes in the humanities, arts, sciences, and mathematics along with a rich elective program across the disciplines.

Transcending particular courses or disciplines, the curriculum is designed to foster intellectual curiosity, growth, and a love of learning. It aims to develop distinctive qualities of mind and to pass on essential skills, values, and knowledge to our boys.

Skills, Values, Knowledge

Skills
• Analyzing and Synthesizing Information
• Problem Solving, and Critical Thinking
• Writing and Research
• Collaboration and Communication Across Multiple Platforms
• Interdisciplinary Learning
• Adaptability, Design, and Creativity

Values
• Character, Empathy, and Resilience
• Leadership and Teamwork
• Lifelong Love of Learning
• A Process-Oriented Approach to Education
• Global Citizenship and Environmental Sustainability

Knowledge
At Belmont Hill, we believe that content forms the basis of a 21st century education anchored in imparting key skills and values to our boys.

A firm understanding of grammar and vocabulary, combined with a focus on writing throughout the curriculum, enables our boys to communicate skillfully across multiple platforms. Grounding our math and science courses in foundational content provides Belmont Hill students with the requisite knowledge to do meaningful work in science labs and maker spaces. Furthermore, rich content in the arts, humanities, classics, and modern languages equips students with the context and cultural understanding required to analyze the world through an empathic lens.

Thus, we empower our teachers to expose their students to content they deem fundamental to their respective fields and to leverage that content to reinforce skills and values essential to our boys’ success both at and beyond Belmont Hill.
Credit and Promotion Requirements

Each student in Forms I-V is expected to carry a program of study equivalent to five full courses. Beginning in Form III, one credit is awarded for every full year course and one half credit for every semester-length course completed with a grade of D- or above. Students in Form VI may reduce their programs to four courses during one semester. Enrollment in six courses in any given semester requires special permission.

To be promoted to the next form, a student must complete the year with no grades of F, no more than two full credits at D level, and with enough credits to graduate by taking no more than five courses in each of the ensuing years.

Diploma Requirements

A diploma is awarded to those in Form VI who have completed the following:

1. 18 1/2 units of credit in the last 4 years. 1 full year’s study = 1 unit

   No more than 6 of these credits may be D’s.

   No credit is given for a course repeated to raise a D.

   No credit is given for an F.

2. At least 4 1/2 units of credit in the senior year. Of these, no more than 2 may be D’s and none may be F. With the approval of the Senior Projects Committee, a student in Form VI may withdraw from one or more designated second

   semester or year-long courses during the final quarter of the academic year to undertake a Senior Project. Successful completion of such a project (with a grade of Pass) shall then become a requirement for Graduation.

3. Algebra 2A or Algebra 2, and Geometry A or Geometry.

4. English must be studied in each semester. In Forms V and VI, semester-length elective courses chosen must include English 15 and three courses drawn from the groups English 16-20 and 21-33, two from one group and one from the other.

5. Completion of the third level of one foreign language, either modern or classical. Those who enter in Form I are expected to study both Latin and a modern language.

6. 1 1/2 years of History in Forms V and VI.

7. Two year-long courses drawn from Biology, Chemistry, Physics, AP Environmental Science, Advanced Marine Biology, Geology/Astronomy.

8. A semester course in Art History, Music Appreciation, or an Advanced level participatory art. Music Composition, Music Technology, or Theory of Jazz may satisfy either a participatory or appreciation requirement, but not both.

9. A semester course in participatory arts, numbered Art 31-46.

10. The carving and finishing of a wooden panel to be permanently displayed at the School.
**Grading System and the Honor List**

A is given for academic work of excellence. B is an honor grade and C a college-certifying grade. D is a minimal passing grade, suggesting the need for supplemental work before moving ahead in the subject. F is a failing grade, and courses in which it is given earn a student no credit.

The school posts Honor and High Honor lists at the conclusion of the first semester and academic year. In the computation of honor standing, passing grades are assigned a point value in the range of D- (1) to A+ (12). To qualify for the High Honor list, a student must earn an average in a four or five course program of 10 or above, with no D’s or F’s. To qualify for the Honor list, a student must earn an average in a four or five course program between and including 8.8 and 9.99 with no D’s or F’s.

A Certificate is awarded at Commencement to special or visiting students in Form VI as evidence of attendance.

**Diploma Designations**

At the conclusion of the Form VI year, a Cum Laude diploma is awarded for a cumulative academic average for Forms IV-VI between 8.8-9.9 on the 12-point Honor List scale.

A Magna cum laude diploma is awarded for a cumulative academic average for Forms IV-VI between 10.0-10.49.

A Summa cum laude diploma is awarded for a cumulative academic average for Forms IV-VI of 10.5 or above.

**Cum Laude Society**

The Belmont Hill chapter of the Cum Laude Society, established in 1928, annually may elect for membership in this national independent school honor society Sixth Formers of good character who stand in the top fifth of their class in academic achievement.

**Summary of Courses**

Courses labeled f are given in the Fall semester only.
Courses labeled s are given in the Spring semester only.
Courses labeled A are for especially capable students.
Ordinarily, no course will be given for fewer than ten students except arts courses and advanced courses in language or mathematics.

A summary of required courses and subject sequences appears on pages 4-5. A listing of elective opportunities follows on pages 6-7.
<table>
<thead>
<tr>
<th>Form</th>
<th>ENGLISH</th>
<th>MATHEMATICS</th>
<th>HISTORY</th>
<th>SCIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (Gr. 7)</td>
<td>ENGLISH I</td>
<td>PRE-ALGEBRA/ PRE-ALGEBRA A</td>
<td>ANCIENT GREECE AND ROME</td>
<td>FORM I SCIENCE</td>
</tr>
<tr>
<td>II (8)</td>
<td>ENGLISH 2</td>
<td>ALGEBRA 1/ ALGEBRA 1A</td>
<td>U.S. GOVERNMENT</td>
<td>INTRODUCTORY PHYSICAL SCIENCE</td>
</tr>
<tr>
<td>III (9)</td>
<td>ENGLISH 3</td>
<td>GEOMETRY/ GEOMETRY A</td>
<td>MIDDLE EAST AND CHINA</td>
<td>(Returning Students) ENVIRONMENTAL SCIENCE</td>
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<td></td>
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<td></td>
<td>conceptual Physics</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>(New Students) ENVIRONMENTAL SCIENCE</td>
</tr>
<tr>
<td>IV (10)</td>
<td>ENGLISH 4</td>
<td>ALGEBRA 2/ ALGEBRA 2A</td>
<td>EUROPE IN THE WORLD</td>
<td>Two year-long courses in laboratory science in Forms IV-VI required, drawn from Biology AP Biology (usually Form IV)</td>
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<td></td>
<td>Chemistry AP Chemistry (usually Form V)</td>
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<tr>
<td>V (11)</td>
<td>Am. Literature</td>
<td>Intro to Pre-Calculus, Pre-Calculus A or Pre-Calculus</td>
<td>U.S. HISTORY / AP U.S. HISTORY</td>
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<tr>
<td></td>
<td>One Course each semester selected from English Electives</td>
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<tr>
<td>VI (12)</td>
<td>Inquiry</td>
<td>Statistics, Calculus AP Calculus AB AP Calculus BC AP Statistics Linear Algebra</td>
<td>One Semester History Elective</td>
<td>AP Environmental Science Physics, AP Physics (usually Form VI)</td>
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<td>AP Computer Science Principles AP Computer Science A</td>
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</tbody>
</table>

Acceleration in Mathematics and Modern Language sequences may be possible, depending upon testing results at time of entrance.
**LANGUAGES**

<table>
<thead>
<tr>
<th>CLASSICAL</th>
<th>MODERN</th>
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</thead>
<tbody>
<tr>
<td>LATIN ALPHA</td>
<td>FIRST FORM CHINESE, FRENCH or SPANISH 1st Quarter</td>
</tr>
<tr>
<td>LATIN GAMMA or GAMMA A</td>
<td>CHINESE, FRENCH or SPANISH 1</td>
</tr>
</tbody>
</table>

**ARTS**

<table>
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<tr>
<th>1st Quarter</th>
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<tbody>
<tr>
<td>FIRST FORM ART</td>
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**OTHER**

<table>
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<tr>
<th>HEALTH</th>
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<tr>
<th>ELECTIVE AT APPROPRIATE LEVEL FOR RETURNING STUDENTS (full year)</th>
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<tbody>
<tr>
<td>LATIN 1, 2 or 2A</td>
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<tr>
<th>HEALTH/ETHICS*</th>
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<th>HEALTH</th>
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<table>
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<tr>
<th>FORM III Only B-Flats Jazz Band</th>
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<th>FORM III Only</th>
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<table>
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<tr>
<th>ONE SEMESTER COURSE REQUIRED IN FORMS IV-VI</th>
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<tbody>
<tr>
<td>SELECTED FROM</td>
</tr>
<tr>
<td>ART HISTORY</td>
</tr>
<tr>
<td>MUSIC APPRECIATION</td>
</tr>
<tr>
<td>THEORY OF JAZZ</td>
</tr>
<tr>
<td>ADVANCED DIGITAL VIDEO</td>
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<tr>
<th>ONE SEMESTER COURSE REQUIRED IN FORMS IV-VI</th>
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<tbody>
<tr>
<td>SELECTED FROM</td>
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<tr>
<td>ACTING</td>
</tr>
<tr>
<td>CERAMICS</td>
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<tr>
<td>DIGITAL VIDEO</td>
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<tr>
<td>DRAWING</td>
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<tr>
<td>MUSIC TECHNOLOGY</td>
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<th>HEALTH</th>
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*These courses meet for just a portion of the year and are taken in addition to the regular 5-course program.*

5
**Elective Opportunities**

Full year courses are indicated by *. All other listings are one-semester courses. Before registration each spring, students learn which electives will be offered each semester.

**FORM III only**

Latin 1* (new students)
Chinese*, French*, or Spanish*
Facing History and Conceptual Physics
Computer Science 1
Introduction to Engineering

**FORMS III-VI**

Acting
Ceramics
Digital Video
Music Technology
Drawing and Painting
Photography
Woodworking
Advanced Ceramics
Advanced Photography
Advanced Woodworking
Advanced Digital Video + Film
Advanced Drawing and Painting
B-Flats
Jazz Band
Music Technology
Music Composition
Theory of Jazz
Independent Stud

**FORM IV only**

20th Century World History F or S
AP Modern European History*

**FORMS IV-VI**

Art History
Latin: 3-4*, AP Latin*, 5
Chinese: 4, 4A, 5, 5A
French: AP Language*
Spanish: 4*, AP Language*, AP Literature*
Intro Pre-Calculus
Linear Algebra
Multivariable Calculus
AP Calculus AB*
AP Calculus BC*
Pre-Calculus*/Pre-Calculus A*
AP Statistics*
Calculus
Statistics
Linear Algebra
Advanced Earth Science
Advance Marine Biology
Biology* / AP Biology*
Chemistry* / AP Chemistry*
Computer Science 1
Advanced Marine Biology

**FORMS V and VI**

English Electives
African-American Literature
Comedy
Contemporary Literature
Creative Writing
Faulkner and the Southern Tradition
The Hero in Literature
Gothic Literature
Inner Voyages
Literature and Social Justice
Modern American Literature
Non-Fiction Writing
Page and the Stage
Science Fiction
Shakespeare

Science Electives
Advanced Science Research*
AP Computer Science Principles*
AP Computer Science A*
Advanced Earth Science
Advanced Marine Biology
Advanced Elective in Exercise and Physiology

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Elective Opportunities

Full year courses are indicated by *. All other listings are one-semester courses. Before registration each spring, students learn which electives will be offered each semester.

**FORM III only**

Latin 1* (new students)
Chinese*, French*, or Spanish*
Facing History and Conceptual Physics
Computer Science 1
Introduction to Engineering

**FORMS III-VI**

Acting
Ceramics
Digital Video
Music Technology
Drawing and Painting
Photography
Woodworking
Advanced Ceramics
Advanced Photography
Advanced Woodworking
Advanced Digital Video + Film
Advanced Drawing and Painting
B-Flats
Jazz Band
Music Technology
Music Composition
Theory of Jazz
Independent Stud

**FORM IV only**

20th Century World History F or S
AP Modern European History*

**FORMS IV-VI**

Art History
Latin: 3-4*, AP Latin*, 5
Chinese: 4, 4A, 5, 5A
French: AP Language*
Spanish: 4*, AP Language*, AP Literature*
Intro Pre-Calculus
Linear Algebra
Multivariable Calculus
AP Calculus AB*
AP Calculus BC*
Pre-Calculus*/Pre-Calculus A*
AP Statistics*
Calculus
Statistics
Linear Algebra
Advanced Earth Science
Advance Marine Biology
Biology* / AP Biology*
Chemistry* / AP Chemistry*
Computer Science 1
Advanced Marine Biology

**FORMS V and VI**

English Electives
African-American Literature
Comedy
Contemporary Literature
Creative Writing
Faulkner and the Southern Tradition
The Hero in Literature
Gothic Literature
Inner Voyages
Literature and Social Justice
Modern American Literature
Non-Fiction Writing
Page and the Stage
Science Fiction
Shakespeare

Science Electives
Advanced Science Research*
AP Computer Science Principles*
AP Computer Science A*
Advanced Earth Science
Advanced Marine Biology
Advanced Elective in Exercise and Physiology

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FORM VI only

Advanced Elementary Greek

History Electives
- Advanced Macroeconomic Theory and 21st Century Conflict
- International Relations
- World Religions
- Global Economics
- American Politics and Policy
- The History of South Africa

Humanities Courses
- Native American Studies
- Advanced African American Studies

Science Electives
- AP Environmental Studies*
- Physics*
- AP Physics*
- AP Physics C
- Biomedical Engineering (6th Course)

INQUIRY COURSES

Advanced Narrative Writing
Breaking Down the 4th Wall: Exploring Contemporary Culture Through Film, Music and Writing
God, Man & Myth
Impact and Legacy
Literature and Film
Maine Coast
Pathways to Justice
Statistical Revolution in Sports
Advanced Science Research
Immigration Today
Courses of Instruction

Arts

The purpose of the Arts Department at Belmont Hill is to offer formalized and individual instruction in studio arts, art history and music. Departmental courses are organized sequentially, and a boy’s progress in any one of them is regularly evaluated.

The ultimate goal of the courses, separately and together, is to nurture a boy’s own creative imagination and facility with arts materials and media, to expand his sensory awareness, and to instill in him an appreciation of beauty as it is found in his own work and in that of others.

Unless otherwise indicated, all arts courses given above the Form II level count fully toward the 18 1/2 units required for graduation and are taken as a part of the regular course load.

Courses marked with an asterisk (*) are taken in addition to the regular course load.

* FIRST FORM ART

This is a course required of all boys in Form I. It meets daily throughout the first quarter serving as an introduction to studio work at Belmont Hill. Fostering active observation and creative thinking, the course focuses on projects in two and three-dimensional media with an introduction to specific skills in drawing, painting and sculpting. Studio work draws upon subject matter from other courses to help unify the learning experience across disciplines.

FORM I AND II ART, MUSIC AND PERFORMANCE

Students in Form I and II are required to participate in both visual and performing arts activities. Students in Form I must choose to participate in a performing arts based elective in either the winter or spring season. Students in Form II must choose one season of visual art activity or one season of performing art activity (fall, winter or spring) during the course of the year. Participation in a year-long instrumental program or theatrical production may also satisfy the requirement. Annually, a list of activity choices will be published during the course selection process.

** Due to Covid protocol and a modified school schedule this requirement may be suspended.

Art 31  
CERAMICS  
Forms III-VI

This course is designed to give an introduction to work in clay. Hand-building and wheel work are covered as well as the proper application of simple glazes. With an emphasis on an understanding of the relationship between design and function, the coursework begins with the construction of traditional pottery vessels and moves towards a development of style. A final project will take the place of an examination.

Art 32  
ADVANCED CERAMICS  
Forms IV-VI

This course allows students an opportunity to further develop their skill in working with clay and the making of more challenging forms. Not only will students be asked to make significant works but they will also be required to research both traditional and current trends within the field of ceramic art. The course concludes with each student displaying a related body of work. This class is open to students who completed Ceramics with a B- or better.
Art 33
DRAWING AND PAINTING
Forms III-VI

Many believe that drawing and painting are specialized skills attainable only by the few, but all people can learn to draw and paint with proper instruction, allowing them to observe the world more closely and to envision the worlds they wish to create. This course breaks the component lessons of drawing and painting: space and inter-space, light and dark, coloration, and texture into component parts that can be mastered and added together to create a clear and expressive language. Students use pencil, charcoal, brush, and paint on projects in the studio and out on the campus to sharpen perception and develop expressive skills. Additional work in Google SketchUp allows students to draw and model invented and imagined forms.

Art 35
ADVANCED DRAWING
AND PAINTING
Forms IV-VI

Open to students who have completed Drawing and Painting I, this course will focus on further developing skills in perception and expression. While continuing to use the studio and campus as a focus, this course will encourage the development of an individual artistic voice and the production of a portfolio of work.

Art 40
ACTING
Forms III-VI

A course that approaches acting via acting technique, character development and script analysis. It makes no difference whether students are experienced actors and, indeed, a class of mixed experiences is best. The student, though, must be willing to approach acting seriously and with rigor, eager to learn by doing, and accepting of the belief that acting is ultimately a team endeavor not an individual one. Assignments include improvisations, monologues, two-man and group scene work, text reading, script analysis, and short role memorization. Final projects include public performance and a written analysis of a play and one of the characters within that play.

Art 41
WOODWORKING
Forms III-VI

In addition to being an introduction to the art of fine woodworking, the course serves to develop a sense of design and an awareness of the relationship of form and function. Students will design, plan, and complete projects in wood, learning the care and use of various hand and power tools. The aesthetics of design, craftsmanship, and careful planning are stressed in the course work and in evaluation procedures. Facilities limit the class size to a maximum of 10 students.

Art 41A
ADVANCED WOODWORKING
Forms IV-VI

This course provides students with an opportunity to further their experience with woodworking techniques. The material covered in class will include design criteria, drafting for woodworking and advanced machine operations and safety. The typical semester requires a student to design and construct a significant project of either furniture or sculpture primarily in wood. This class is open to students who completed Woodworking with a grade of B or better.

Art 43
PHOTOGRAPHY
Forms III-VI

A comprehensive course in introductory photography, students will learn the basics of camera operation, film development and traditional silver printing in a wet darkroom. A SLR film cameras, film, chemistry and paper will be supplied by the department. Weekly
shooting assignments on a range of topics assure a breadth of experience and a variety of techniques. Students will also explore the world of digital photography on a personal camera of any format. Each student will work toward the completion of a portfolio of mounted prints demonstrating mastery of both the technical and artistic elements of making photographs.

**Art 44**
ADVANCED PHOTOGRAPHY
Forms IV-VI

Advanced Photography builds on the experiences learned in the introductory photography class by exploring digital, large and medium format and alternative processes in printing.

Students will learn to scan and process film images into digital files, and will develop more comprehensive photo editing skills. Students should expect to capture images daily, and will be assessed on the body of work generated and diversity of formats explored. A majority of the coursework focuses on a student’s ability to develop an artistic and technically sound portfolio.

Most supplies for the course will be supplied by the department, but a personal DSLR camera is recommended. This class is open to students who have completed Photography I or have the permission of the instructor.

**Art 45**
**DIGITAL VIDEO AND FILM**
Forms III-VI

We live in an age where digital video is everywhere: how does video affect the way we communicate, learn and form opinions about the world? TV and online video strive to shape our understanding of the world through storytelling. In this class, students examine different methods of communication through video and create stories of their own. The course introduces students to the basic principles and practices of video production. They learn story-boarding, script writing and camera skills, along with the use of iMovie editing software. Boys work in teams to create several video projects, including an independent project which may be suitable for entry in film festivals held across the country.

**Art 46**
ADVANCED DIGITAL VIDEO AND FILM
Forms IV-VI

Advanced Digital Video and Film Studies expands on the technical elements covered in Digital Video while introducing students to the process of viewing and analyzing films from a technical and conceptual perspective. Students utilize a number of techniques to elevate the technical components of their work and begin to introduce a deeper conceptual understanding of how a film comes to fruition. Students will utilize resources, such as The Criterion Collection, to expand their working knowledge of film and directors. Such resources will allow students to isolate movements, thematic inspirations, and connections to their own work to provide them with a solid foundation of work that came before them. Students will engage in a number of individual and collaborative assignments meant to challenge and force them to think outside of the box. The class will conclude with a final project, a short 20-minute film directed and written in their style of choice. A written statement will accompany this piece describing the impetus behind their work along with the direction and conceptual inspiration that allowed the piece to come together.

**Art 47**
**DIGITAL MUSIC PRODUCTION**
Forms III-VI

This course covers the basics of music technology, with particular focus on digital keyboards, MIDI, and computer music programs. In the first quarter, students examine basic acoustics, the
history of music technology, synthesizers, and microphone and speaker design. In the second quarter we learn how to sequence music on a computer, record live sound, and create music for films. Assignments and projects range from the study of topics to the creation of original music, and students are assessed based on quizzes, composition assignments, live recording projects, presentations, and their participation in group projects. At the end of the course, students complete a final project utilizing what they have learned in the areas of live recording, computer sequencing, and music production.

This course is designed for students of Forms III-VI. No prior experience playing an instrument is necessary. Music Technology fulfills one semester of the diploma requirement in arts as a ‘participatory’ course.

Art History
Forms IV-VI

Through teacher led presentations, readings, in-class discussions, on-line learning experiences and class visits to major Boston Museum collections, students are familiarized with the rich heritage of the visual arts in a variety of forms from architecture and sculpture to drawing, painting, printmaking and photography. A major goal of the course, paralleling the historical survey, is the development in the student of a basic critical sense and an appreciation not only of the historical roles of the artist but also of how art becomes a reflection of the societies which produced it. After an examination of the elements of art, the course embarks upon a chronological study of art through the ages from Greek and Roman through recent work in the 21st Century.

Music Appreciation: Roll Over Beethoven - is Rap Music?
Forms III-VI

Contemporary popular music and the rap/hip-hop culture and genre, in particular, seem to dominate the music world. Still, without Beethoven and his gang, would country, gospel, rock, and rap music even exist? With a pulse on today’s music and artists, this one-semester course journeys through the development of musical genres and time periods including the middle ages (medieval), rock, orchestral and movie music, baroque, gospel, rap, Motown, and country as well as music from around the world. On this journey, historical and social connections will provide insight into the personalities and conditions that inspired and continues to give life to this art form - MUSIC!

Music Composition
Forms IV-VI

Designed to explore music from the inside out, this practical one-semester course is an introduction to the fundamental materials and simple compositional procedures of tonal music. The development of basic musicianship skills augments the study and practice of composing, including work on the notating of music, on understanding and originating rhythmic and harmonic progressions and two-part counterpoint, and ultimately, on the writing of original music from an informed perspective. Although helpful, prior study of music is not necessary for success in this course.

Theory of Jazz, Rock and Blues
Forms III–VI

This course addresses the fundamentals of music theory as they apply to jazz, rock, and blues music. As an alternative to Music Composition, it teaches many of the same basic lessons in scales, chords, keys, music notation, and composition but examines them through the lens of the history of these specific genres. Students learn how musicians improvise over chords, interpret rhythms, and write melodies and chord progressions. They also learn to construct basic scales, intervals and chords. Supplemented with learning exercises and ear training, these lessons help stu-
Students understand how to listen to, play, and compose music. Assignments and tests involve analyzing melodies and chord progressions, writing original tunes, and responding to questions regarding scales and chord functions. Students will write entries in a listening journal in addition to the theory work.

This course is designed for students of variable levels of musicianship from Forms IV-VI and fulfills one semester of the diploma requirement in arts as an “appreciation” course. Form III students may take this course with permission of the Department. No prior music theory or playing experience is necessary. The course is highly recommended for members of any of the school’s jazz or rock ensembles.

ART INDEPENDENT STUDY
A student who wishes to pursue art beyond the level offered in a regular or advanced course may create his own direction in art study, by approval of the department chair and through sponsorship by a member of the arts faculty. A written proposal to the Dean of Curriculum outlining a direction and focus of study is required.

Classics
The influence of Latin on English and the Romance languages is staggering. The study of Latin therefore helps students to become better readers and a more expressive writers & communicators. It also aids them immeasurably in the study of Romance languages should they elect to pursue them in the future. While these are perhaps the most obvious benefits of studying Latin, they are not the best reasons for doing so.

The acquisition and benefits of Latin relate more to the structure of the language than to its vocabulary. The study of Latin helps to develop a rigorous attention to detail, an intellectual focus, and logic. It does so while emphasizing accountability and developing study skills in a way that is uncommon in a 21st century classroom. Yet, few subjects do more than Latin to promote 21st century educational goals, particularly those revolving around critical thinking and problem solving. There is even a growing body of literature that sees the study of Latin, for some of the very reasons mentioned above, as an excellent prerequisite for coding.

The value of Latin, however, does not lie entirely in the skills it helps to develop. Latin offers students a rigorous interdisciplinary educational experience and extraordinary content. As students advance, they read Caesar, Cicero, Ovid, Vergil, Plato, Homer and others - some of the most important and influential authors in the history of Western Civilization, all primary sources in their original languages.

Latin Alpha and Latin Gamma
Instruction in Latin begins in Form I. The first (Alpha) and second (Gamma) years of study are devoted to the acquisition of a strong foundation in grammar and vocabulary indispensable to all subsequent work. Our textbook is supplemented with readings about Roman social history and several fun Latin novellas which develop students’ confidence and comfort in reading Latin. Accountability and study skills are special points of emphasis.

Advanced Latin Gamma
This course is open to boys who have displayed particularly strong aptitude for the study of Latin at the Alpha level. It follows the syllabus of the regular Gamma course but at an accelerated pace. Students complete their text earlier in the year than the regular section and move on to authentic Latin prose, graffiti, and Medieval literature.
Latin 1

New students entering Form II with limited or no prior exposure to Latin will enroll in Latin 1. It combines the work normally done in the Alpha-Gamma sequence and prepares students for Latin 2. The text was designed in-house for this course in particular and incorporates articles that explore many aspects of Roman culture. It is supplemented by several fun Latin novellas to develop reading facility. This course is open to new students in Form III or Form IV who wish to study Latin.

Latin 2

This course combines rigorous grammar review with translation and interpretation of ancient texts. Selections from Livy, Caesar, and other authors introduce the student to concepts of accurate reading and critical analysis of seminal works of western literature.

Advanced Latin 2

This course is open to boys who have displayed a particularly strong aptitude for Latin at the Gamma level, regular or advanced. The course delves deeper in Caesar’s Commentaries and studies a broader range of Latin authors than the regular class. In the late spring, the class will read selections from Suetonius’ Caligula as a means of gaining an introduction to both the literature and the history of the early Empire.

Latin 3

Students in Latin 3 will study a range of authors and styles. The fall semester is anchored by Cicero and the spring by Ovid, though numerous other works will be incorporated at the discretion of the teacher or by request of the students. Completion of Latin 3 satisfies the language requirement, although students often elect to continue on to Latin 4 or 4AP.

Advanced Latin 3

This course is open to those students who have displayed a particularly strong aptitude for reading Latin at the second-year level, regular or advanced. The fall semester revolves around the history and politics of the Late Roman Republic. Students read Cicero’s First Oration Against Catiline and Quintus Cicero’s Little Handbook of Electioneering. They also study Roman rhetoric. In the spring, students read Ovid, Martial, the Vindolanda Tablets, and a selection of Medieval authors. They will also learn sophisticated philological research techniques and poetic scansion. Finally, students compete in Holy Cross’ Manuscripts challenge and gain some exposure to Ancient Greek.

Latin 4

Students in Latin 4 will also study a range of authors and styles. In the fall, they study the Roman historian Livy. In the spring, they turn their attention to Vergil, reading selections of the Aeneid in the original. Other works are often incorporated at the discretion of the teacher or by request of the students.

AP Latin 4

This full-year course follows the Advanced Placement curriculum, providing an in-depth reading of Vergil’s great epic, the Aeneid, and a detailed look at Caesar’s Commentaries on the Gallic Wars. The goal of the course is for students to continue to develop their translating skills while at the same time developing a critical eye for Latin poetry. In addition to substantial reading in Latin, course time will be devoted to examining Vergil’s Homeric models, studying literary criticism, mastering dactylic hexameter, and reading at sight. It is expected that all students enrolled in Latin 4 (AP) will take the Advanced Placement exam in May. The weeks following the AP will be spent reading from Latin authors chosen by the teacher and class.


Latin 5

This course is offered to boys who have completed Latin 3 or 4, and it is designed to give a broad exposure to a wide variety of authors and styles. Readings are selected from four areas: Lyric poetry and epigram (Catullus, Horace, and Martial); philosophical and scientific observation (Cicero’s De Senectute and the Elder Pliny’s Historia Naturalis); and “lesser known” Latin (including medieval works, the Bayeux tapestry, and music).

Advanced Elementary Greek

This full year course is offered as an elective to Juniors and Seniors. An extensive Latin background is necessary, as the course relies on the students’ understanding of Latin to convey linguistic concepts quickly. Students begin with no Greek and will be reading Homer’s Odyssey, Book 9 by mid-spring. Students will read New Testament Greek by December and then move on to selections from Aesop, Xenophon, Plato, Herodotus, and Homer. Students will also be introduced to the basics of Greek Art and Architecture.

English

The study of English focuses upon the examination of the uses of language and literature. Its primary goals are to develop greater effectiveness in communication, to encourage clear and logical thought, and to promote a greater awareness of human values. To this end, the curriculum is organized around the intellectual skills of reading, writing, speaking, listening, and thinking.

As readers, students are encouraged and expected to develop the following skills:

• the sound comprehension of ideas expressed in the various forms of writing
• the ability to recognize implications and to make inferences
• the ability to distinguish the literal from the figurative
• the ability to distinguish fact from fiction
• the recognition and identification of point of view
• the ability to recognize faulty reasoning
• the perception of cause-and-effect relationships
• the recognition of the different forms and purposes of written expression
• the development of a larger, more varied vocabulary

As writers, students are encouraged and expected to seek proficiency in the following areas:

• the generating of ideas about an assigned topic
• the expression of these ideas in well-ordered paragraphs
• the construction of sound sentences and the use of varied syntax
• the correct application of the rules of punctuation, grammar, spelling and capitalization
• the control of diction and tone
• the processes of drafting and revising

Since the early 1990s the English department has shifted away from more conventional modes of instruction to discussion-based teaching around Harkness tables.

Discussion-based teaching counters derivative, “safe” thinking, encouraging students to derive answers for themselves, to venture forth, and to take the kinds of risks that promote intellectual growth and self-confidence. The department believes that discussion-based teaching provides the most effective forum for discourse and that the kind of verbalization that occurs in it encourages a deeper level of understanding, something qualitatively better than the learning that occurs in teacher-centered classrooms. Teachers in the department seek to be more the “guide on the side” than the “sage on the stage.”
A discussion-based teaching culture heightens boys’ awareness of discussion dynamics, methods of preparation, and attendant alterations in their thinking about their individual responsibilities for what occurs during any given class time.

Middle School English
Forms I-III

The emphasis lies in the development of orderly, concise expository writing and informed reading. The reading in the lower forms is chosen to balance contemporary with traditional reading selections and to promote an introduction to each of the principal literary genres.

Given in conjunction with the reading, the writing assignments are frequent and emphasize conventional English usage.

Additionally, students are introduced to the skills necessary for the acquisition of a larger active vocabulary: efficient use of the dictionary, recognition of context clues, familiarity with common Latin and Greek roots and affixes, and the methodical study of new words drawn from both vocabulary resources and the course texts.

English 1
Form I

English in the First Form presents students with a rich and varied array of literature and language experiences. The theme for the course is the hero. What characteristics do heroes have? What do we value in ourselves and in others? The short stories, poems, myths, and selected novels challenge readers to look beyond mere events into the dimensions of voice, tone, theme, character, and style. Expository writing responses to literature move from the book report format to more analytical, interpretive pieces and must show evidence of organization, critical thinking skills, sound mechanics, and a sense of style. The readings may also serve as inspiration for creative writing, in which character development, plot, sentence structure, or attention to detail might be the focus of an exercise. In close conjunction with the literature comes language learning, with grammar and vocabulary studied from separate workbooks but always with an eye to application in the student’s own writing. Texts include:

- The Diary of Anne Frank, Goodrich
- The Pearl, Steinbeck
- The House on Mango Street, Cisneros
- The Call of the Wild, London
- Heroes, Gods, and Monsters of the Greek Myths, Evslin
- A Midsummer’s Night’s Dream, Shakespeare
- Warriors Don’t Cry, Melba Pattilo
- A Raisin in the Sun, Hansberry
- Fahrenheit 451, Bradberry
- Maus, Spiegelman
- Bible Stories
- To Kill a Mockingbird, Lee
- The Lord of the Flies, Golding
- The Outsiders, Hinton
- Julius Caesar, Shakespeare
- Membean.com (vocabulary)

English 2
Form II

English 2 continues much of the skill development in grammar, mechanics, syntax, and vocabulary begun in English 1. Additionally, students read a wider range of literary genres, applying an expanding variety of learned terms and methods to their literary analyses.

Producing clear, correct, engaging prose remains the goal of writing assignments. While brief narrative, descriptive, and reflective pieces are written, expository composition, particularly as a response to readings, receives special attention. Students learn or refine the use of thesis statement, paragraph unity, and idea development in work produced both in and out of class. Students learn, as well, to write in drafts and to share work with classmates. As in English 1, poetry is read and recited but with a fuller view of poetic language and devices. Other texts include:

- A Raisin in the Sun, Hansberry
- Fahrenheit 451, Bradberry
- Maus, Spiegelman
- Bible Stories
- To Kill a Mockingbird, Lee
- The Lord of the Flies, Golding
- The Outsiders, Hinton
- Julius Caesar, Shakespeare
- Membean.com (vocabulary)

English 3
Form III

A discussion-based teaching culture heightens boys’ awareness of discussion dynamics, methods of preparation, and attendant alterations in their thinking about their individual responsibilities for what occurs during any given class time.
This class emphasizes and builds on writing, discussing, and close reading skills. Our goal is to continue to develop critical thinking as we tie reading and writing to Form III themes: Leadership, Responsibility and Empathy. As in Forms I and II, students read and write about several literary genres, including nonfiction and poetry, that introduce them to different voices and perspectives. We continue to study vocabulary throughout the year, as well as to address grammatical issues as they arise in student writing. Although we emphasize the turn to analytical writing as the course continues, we mix personal/imaginative essays with analysis throughout, concluding the course with a longer Autobiographical Profile.

Books include: The World’s Best Short Stories, ed. James Daley; The Odyssey by Homer; The Catcher in the Rye by J.D. Salinger; Romeo and Juliet by Shakespeare; and True Grit by Charles Portis, The absolutely True Diary of a Part Time Indian by Sharon Alexie, and Their Eyes Were Watching God by Zora Neale Hurston.

English 4
Form IV
As a transition between Middle School English and the electives, English 4 seeks to improve reading techniques, to develop further skills in expository writing and in public speaking, to encourage sound inductive reasoning, and to broaden students’ literary experience. Texts include:
- Of Mice and Men, Steinbeck
- Macbeth, Shakespeare
- Handmaid’s Tale, Atwood
- The Great Gatsby, Fitzgerald
- Tale of Two Cities, Charles Dickens
- Three Theban Plays: Antigone, Oedipus the King, Oedipus at Colonus
- Here, Bullet, Turner

ELECTIVES FORMS V and VI
Designed to introduce students to significant literature and to prose expression that is clear, convincing and accurate, electives continue to emphasize student responsibility for the effective integration of their thinking, reading, and writing, especially about literature. Students tackle increasingly challenging material as they proceed through each course, discovering the deliberate tools and techniques authors use to manipulate readers. Each course gives students the opportunity to flex their independent thinking and questioning skills, and to develop and recognize their own critical resources. Requirements are described as follows:

Introduction
The junior-senior program provides a core curriculum that ensures a wide exposure to genre and period, balances broad-based and specialized approaches to literature, and supports the principle of election with few constraints. The program allows students to round out their literary experience, shoring up areas that may need extra attention, opening new vistas or allowing for further concentration in a particular area of interest. In guiding choices, the department wants students to look ahead, planning their pathways through the requirements carefully and deliberately. Student inquiry is invited, especially from boys as they are just entering the program.

AMERICAN LITERATURE
Echoing Jefferson’s appeal for social renewal with each generation, Ralph Waldo Emerson wrote in “The American Scholar”: “Each age...must write its own books.” We’ve included Emerson in this course, and continue to value his appeal, even while we work toward a balance between the ideas comprising the traditional works of American literature and those from other diverse, contending voices. As a nation of immigrants, we have many traditions from contributing cultures, and each group’s literary
traditions both influenced the traditional canon and reflect its unique perspective. We begin with some of the established classics in order to identify foundational themes, then we examine how those themes and literary language evolved over the years. We open up, through reading, writing and discussing, different interpretations of our American traditions. Many of the books read in this course share a concern with American history (and the material covered in U.S. History and AP U.S. History). Early readings typically include selections from Emerson’s essays and Thoreau’s *Walden*; Hawthorne’s *The Scarlet Letter*; Frederick Douglass’s Narrative; short stories by Poe, Stephen Crane, and Charlotte Perkins Gilman; and poems by Walt Whitman and Emily Dickinson. *Huckleberry Finn* is the final book in the course.

**THE PAGE AND THE STAGE**

Page and Stage is a single-semester junior year elective that fulfills both a student’s art appreciation requirement and his English requirement. It offers students the opportunity to explore plays both as literature and as performance. Over the course of the semester, students will read plays from a variety of different time periods and genres, including some plays in translation, discuss these plays in depth, and then bring sections of these plays to life through on-you-feet exercises and scene studies.

The central question guiding our exploration will be how characters are created on the page and how these characters are brought to life on stage. By exploring the simple inquiry question of “who is this character,” we will consider how characters can be perceived and created in a variety of different ways.

In a more general sense, the class will also explore how plays function differently from other types of literature, how dialogue and interpretation of dialogue create character, how setting and lighting influence characterization, and how an audience’s response to a production is generated through both language and action.

As part of their coursework, students will perform one monologue, one two-person scene, and one group scene. Through this work, students will explore how to interpret dialogue, how to block a scene, and how to use language and action to create characters. Students will explore characters’ motivations by writing character studies, write scene study responses, and write close reading responses about specific scenes that they study. To culminate their work in this course, students will revise and then perform one or more of their previous acting studies in front of an audience at the end of the semester.

Potential Texts:

- *Tartuffe*, Moliere
- *Death of a Salesman*, Miller
- *Our Town*, Wilder
- *The Cherry Orchard*, Chekhov
- *Rozencrantz and Guildenstern Are Dead*, Stoppard
- *Art*, Reza
- *Someone Who’ll Watch Over Me*, McGuinness
- *Journey’s End*, Sherriff
- *The Piano Lesson*, Wilson
- *Angels in America*, Kushner

**THE HERO IN LITERATURE**

This course focuses on different conceptions of heroism. Class discussions explore both the heroic qualities in literature and the social context in which it occurs through assignments in fiction and non-fiction. While the focus of the course is literature, class discussions also explore film, painting, sculpture, and the conceptions of the heroic in popular culture.

**LITERATURE AND SOCIAL JUSTICE**

Arresting and original language, new ideas, classic ideas from a new perspective, characters who live and breathe—these are the gifts of literature, which inspire us and change us in terms of
thinking and questioning skills, and to develop a critical, analytical framework for the better understanding and appreciation of Shakespeare’s dramatic narratives and poetry. Discussions involve artistic, linguistic, structural, and dramatic explorations: considerations of figurative language, prosodic techniques, linguistic ‘play’ by association, and staging.

Rich in traditions of Renaissance thought, the course offers a study of selected canonical plays with their historical, literary, philosophical and political contexts. Selected ‘interpretations’ of Shakespeare’s works include film versions by Olivier, Jacobi, Branagh, McKellen, Zeffirelli, Kozintsev, Kurosawa, and Peter Brook, and the dramatic re-castings of Stoppard, Harwood, Madden, and Verdi. Students prepare critical essays in conjunction with their reading, and take a comprehensive, written final examination. Choice of texts varies: Romeo and Juliet, Richard II, I Henry IV, Henry V, Hamlet, Othello, King Lear, Measure for Measure, Antony and Cleopatra, The Tempest, Twelfth Night, and Macbeth, as well as a variety of poetry and shorter fiction.

CREATIVE WRITING

This course is for students who want to write stories, poems, and drama, and are ready to examine closely the building blocks of good writing. Using a wide range of examples, from master writers as well as past student work, the class investigates and tries out specific elements of fiction (such as character, setting, dialogue, and point of view) and of poetry (such as image, metaphor, lineation, and rhythm).

In weekly exercises designed to engage the imagination and to keep in shape as writers, students experiment with different techniques and forms. In addition to closely analyzing distinct styles of writing – from Robert Browning to Billy Collins; from Virginia Woolf to Michael Cunningham – students
workshop each other’s poems and stories in order to understand and artfully manipulate reader reactions and, ultimately, to revise more consciously. Emphasis is on devotion to reading, learning to read like a writer, and the revising process. The performance aspect includes acting scenes from both original and professional scripts and performing original stand-up comedy.

Final portfolios of best work include: short stories, a children’s story, poetry, a one-act play or stand-up comedy routine, and a writer’s statement.

Short readings may include the play Topdog/Underdog by Suzan Lori-Parks, stories by Raymond Carver and others, and poetry by Mary Oliver and others.

FAULKNER AND THE SOUTHERN TRADITION

As an historical interpreter of the South, William Faulkner (1897-1962) reflects historical fact in his fiction: the unlawful appropriation of Indian land; the systematic and institutionalized oppression of blacks as an integral function of Southern economy during and even after slavery; the high-minded appeal to honor, loyalty, and courage even in the face of the racism and prejudice that corrupted these high-minded values; the guilt, shame, and hypocrisy that accompanied the division between practice and principle; the implacable resistance of the Southerner to outside interference or criticism (especially from the North); the pride in the Confederacy and the bitterness and shame that some Southerners still feel over its defeat. The work of many Southern authors is equally steeped in this history. The details of their stories – the particular characters, the variant scenes, the life stories – are all fictional, but all rooted in the permanent truths which comprise the South’s history and character.

The Faulkner fiction includes: “Tomorrow,” “Barn Burning,” “An Odor of Verbena,” The Bear, As I Lay Dying, Light...
texts outside of class. The course’s graded work will consist of crafting analytical, personal, and creative essays; developing and delivering group presentations; and working to create a culminating video project in which students dive into crafting a gothic text of their own.

Primary Texts
Frankenstein. Shelley
The Shining. Stephen King
A Good Man is Hard to Find. Flannery O’Connor
—“A Good Man is Hard to Find”
—“The River”
—“The Life You Save May Be Your Own”
—“A Late Encounter with the Enemy”
American Gothic Tales. Ed. Joyce Carol Oates
—“Masque of the Red Death.” Poe, Edgar Allan
—“The Yellow Wallpaper.” Gilman, Charlotte Perkins
—“Afterward.” Wharton, Edith
—“A Rose for Emily.” Faulkner, William
—“The Lovely House.” Jackson, Shirley

March Break Independent Reading Project

Secondary Texts (considered in short selections)
Skin Shows: Gothic Horror and the Technology of Monsters. Halberstam, Judith
Gothic America. Goddu, Teresa A.
“The Uncanny.” Freud, Sigmund

Film Texts
Poltergeist.
Alien.

INNER VOYAGES

Spiritual identity is one of the most personal, perplexing issues mankind has to face. Questions of spirituality and religion cut to the core of what it means to be human. Because it is such an intensely personal issue, people deal with it in many completely different ways. In analyzing the works read throughout the course, we are provided with myriad examples of the powerful
effects of spirituality on a range of characters in different contexts. In many ways, their spiritual writhing is our spiritual writhing: their attempts to determine their spiritual identity mirror our own. Essentially, what this course aims to do is put mankind’s spiritual "voyages," his attempts to answer some of the most fundamental questions about life, on display. We then compare the character’s attempts to answer those questions with our own.


AFRICAN AMERICAN LITERATURE

This course will introduce the themes, histories, and rhetorics of African American literature from the mid-18th century to today. We will read poetry from Phillis Wheatley and Jupiter Hammon, to Langston Hughes and Claudia Rankine and explore the political oratory of Sojourner Truth, Malcolm X and Barack Obama. Additionally, we will read excerpts from the slave narratives Solomon Northup and Harriet Jacobs. There will be special attention paid to The Harlem Renaissance and The Black Arts Movement. Students will read the novels *The Color Purple* and *Underground Railroad* and explore the cultural contexts, aesthetic debates, and sociopolitical forces that surround the production of the African American literary tradition.

CONTEMPORARY LITERATURE: VOICES AND VIEWS

“Books help us understand who we are and how we are to behave. They show us what community and friendship mean; they show us how to live and die”—Anne Lamott. Seeking such vital understanding of ourselves and our 21st-century world, we will turn to today’s visionary literary artists and immerse ourselves in their views of people, places, and ideas. By turns building on and breaking from the past, these authors experiment with form, voice, and narrative style—and bring to bear their diverse backgrounds and perspectives.

We will combine traditional close-reading and exploratory discussions with real-world context for these characters, and the predicaments and societal issues that affect them. We will also consider poetry (Marilyn Chin, Clint Smith), music (Childish Gambino, Lady Gaga), and visual art (Mary Ellen Mark, Jean-Michel Basquiat) as related in terms of themes, aesthetics, and worldview.

Assessments will include reader’s responses, personal narratives, creative writing, and presentations.

Texts will vary and evolve, but for the first year will include

Zadie Smith, *On Beauty*
Nick Hornby, *High Fidelity*
Lorrie Moore, *A Gate at the Stairs*
Short fiction by Amy Tan, Colson Whitehead, Toni Morrison, Louise Erdrich, Alberto Ríos, and others.
Films: *Moonlight*, *Boyhood*, *Monsoon Wedding*

SCIENCE FICTION: SOCIETIES OUT OF TIME AND SPACE

Science fiction appears at the edge. It details worlds and technologies at the edge of current human understanding, at the edge of the known universe, and at the edge of the far future. Science fiction is out of our space and our time, or indeed out of spacetime itself. Waves of science fiction writing occur most often when societies must reckon with new technologies or world orders. Science fiction distills the social paranoias of the day and crystallizes them into digestible chunks, allowing societies to critique their present by examining their possible futures. Each of the texts examined in this course engages with its own contempo-
Advanced Narrative Writing

Advanced Narrative writing offers students a chance to get creative, express themselves, and write from the heart. Veterans of the Creative Writing course or Nonfiction Writing course—or students who have invested time outside of school in narrative writing or poetry—can continue to work in those arenas, as well as trying out new kinds of writing. Poets, Woodbury public-speaking participants, short-story writers, journalists, debaters—any student who loves language and stories can continue to grow and practice skills in this course. Using the workshop model, students will draft, share, and critique work on a regular basis. Writing assignments will include—among others—prompts, exercises, considerations of character/narration, symbolism, setting, meaningful dialogue, and rich imagery. Work in this class also has the potential to connect with other special areas of school life: Students are invited to write Woodbury speeches, college essays, plays to be staged, literary-magazine stories, Panel articles, Podium op-eds, and poetry slam entries.

Books:
- What If?: Writing Exercises for Fiction Writers by Anne Bernays and Pamela Painter
- The Elements of Style by William Strunk, Jr., & E. B. White
- Topdog/Underdog by Suzan Lori Parks
- Various short stories (authors listed above, specific stories TBD)

Inquiry Courses

In Inquiry courses teachers will explore some of the intricacies and fascinations of their own intellectual passions. Organized around a particular theme, each course will make use of different types of knowledge and ways of thinking—history, science, economics, etc.—to examine core controversies and sometimes cutting-edge debates within subjects. Many Inquiry courses will be interdisciplinary to a degree, combining different approaches and materials, to raise key questions about what we know and how we know it. Specific assignments for the courses will vary but will include collaborative work, use of technology, and opportunities for public speaking; visits by outside lecturers will add a real-world dimension. Each Inquiry course will be a means to practice the art of good writing, and papers will include an in-depth study of a limited topic chosen by the student.

Books:
- What If?: Writing Exercises for Fiction Writers by Anne Bernays and Pamela Painter
- The Elements of Style by William Strunk, Jr., & E. B. White
- Topdog/Underdog by Suzan Lori Parks

Film:
- Murderball
- Blackkkklansman
- Lady Bird

Advanced Science Research

In the Advanced Science Research Inquiry, students already enrolled in the year-long Advanced Science Research course will explore the core question of what leads to sound, unbiased scientific research. Using selected readings from the field of Research Ethics and current professional journals, students will first...
What is the ultimate goal in the practice of a religion? This course blends a selective survey of all the major (and some of the minor) religions of the world with world literature that addresses the relationship between God and man. Students will compare and contrast stories from particular faiths about creation, the flood, the apocalypse, and the afterlife. Guest speakers from our community and beyond will talk about their own religious backgrounds and search for meaning. Texts will include selections from The Inferno, Paradise Lost, The Canterbury Tales, The Tao Te Ching, and The Bhagavad Gita as well as stories from more modern authors such as Dostoevsky, Camus, Joyce, and Kafka. To broaden our perspectives, we will have the opportunity to listen to popular music dealing with the themes of god, the devil, man, and myth.

PATHWAYS TO JUSTICE

What is the purpose of law? What are the basic tenets upon which it rests? How do laws reflect specifically American interests and values? By examining the evolution of our system of justice, we can achieve a fuller sense of what we most value and stand for as a nation. This course will be an exploration of the concept of justice in the context of the American legal system. Besides reading various literary texts, watching films depicting legal issues, and hearing outside speakers with different areas of expertise, we will study transcripts of celebrated court cases that involve major challenges to established law. The class will visit the Moakley Federal Courthouse to witness trials in progress.

THE STATISTICAL REVOLUTION IN SPORTS

With ballooning professional sports contracts and the high stakes of major league athletics, the ways in which players are evaluated are being re-examined. Are fantasy sports leagues using the right statistics? How should teams use the draft? What impact do general
managers have on teams? How does the salary cap impact decision making? With the recent success of Moneyball and the controversial work of Bill James, the conventional measures of talent are being questioned. This course will investigate the statistical revolution that is going on in professional sports right now, challenge students to make up their own minds about how to evaluate talent, and look to answer the question “Who is the greatest of all time?” In addition to specific athletic applications, students will be asked to explore other areas, such as financial markets, where discrepancies exist between mathematics/technology and practice.

THE MAINE COAST: A CULTURAL HISTORY

The Maine Coast has developed a particularly rich history and unique culture from the time of its indigenous settlements, to its early history as a European fishing outpost, to its ascendency as a shipbuilding center, to its most recent role as an anti-city, an escape from the context of urban America. This course will start with a study of the literature, art, history, and geography that help us understand the unique culture of the Maine coast.

In the second half of the course, we will build Dacron skin on wood canoes which represent a blend of Native American design, New England boat-building practices, and 20th century materials. We will take the canoes on a two-day journey along a section of the coast to understand the geography and the unique culture that has grown up along its shores. The boats are designed to be constructed by amateurs with no previous wood-working experience and take 60-80 hours to build.

IMMIGRATION TODAY: A MULTIDISCIPLINARY APPROACH

Immigration has been front and center in the news in the United States and across the globe. Refugees continue their exodus from war-ravaged countries including Syria, Afghanistan, and South Sudan while migrants continue to seek refuge from the violence and poverty in such countries-in-crisis as Venezuela and El Salvador. According to the U.N. Refugee Agency, 69 million people were forcibly displaced in 2017, “a record for the fifth straight year”. In this course we aim to understand the causes and consequences of migration by focusing on such questions as: where do refugees go and what is the responsibility of countries that take them in? How have recent trends in migration shifted global and national politics and policy? What is the migrant experience in the United States? How are communities in the Greater Boston area shaped by recent immigrants?

Our goal is to tackle these questions from a variety of disciplines including political science, economics, ethics, literature, and film, and from a variety of perspectives including immigrants, professors, community leaders, law enforcement, politicians, artists, and journalists. We will collect and analyze data, gain information from scholarly journals and academic books, host and visit with experts, and get out into the field.

Resources & Books:
- DATA: Migration Policy Institute; Pew Research Center
In the senior inquiry course, “Impact and Legacy”, we will consider the ways in which we interact with each other every day, the assumptions we make about each other, the impact of our words and actions, and the legacy and imprint those interactions leave on individuals, peer groups, families, and institutions. By considering essays, historical texts, court transcripts, audio recordings, TED Talks, and film, we will examine both historical leadership and conflict as well as our own strengths and weaknesses as leaders and influencers. The course will lean into difficult topics such as the role of social media on our personal relationships, racial profiling, the increase of sexual assaults on campus, and our own self-confidence. We will probe Malcolm Gladwell’s discussion of “What we should know about talking to people we don’t know” (Talking to Strangers, 2019) and the “Power of first impressions” (Blink, 2005). We will study the contentious arrest of Sandra Bland by the side of the road in Texas. We will explore why Neville Chamberlain thought he could trust Adolf Hitler, whether television sitcoms teach us something about the way we relate to each other that isn’t true, how Bernie Madoff deceived so many, and why the trial of Amanda Knox was so unfathomable. We will consider healthy and unhealthy relationships – specifically, the case of Yeardley Love, the young UVA lacrosse player, brutally beaten to death by her boyfriend, George Huguely, a member of the mens lacrosse team at UVA and a graduate of an all-boys independent school in Maryland. Throughout all of these assignments, we will be discussing the tools and strategies we use to make sense of what people are communicating implicitly or explicitly. And because we don’t always communicate well, we will explore how that failing invites conflict and misunderstanding in ways that have a profound effect on our lives and our communities.

This course will be both an introduction to film appreciation and a comparative study of movies and the literary sources upon which they are based. Students will gain an understanding of the different aspects of filmmaking from cinematography, to production design, to direction, etc. They will learn how character development, plot, narrative, symbols, and language are translated from literary texts to film, as well as the practical and theoretical problems of adapting literature to motion pictures. Students will analyze and respond critically to film and text through class discussions, written reviews, examinations, and presentations.

While we will view shots and scenes from a wide variety of films, we will spend more extended periods with:

- Film & Text
  - 12 Years a Slave (12 Years a Slave)
  - Million Dollar Baby (Rope Burns: Stories from the Corner)
  - Lincoln (Team of Rivals)
  - Life of Pi (Life of Pi)
  - Children of Men (The Children of Men)
  - Minority Report (“Minority Report”)
  - O Brother, Where Art Thou? (The Odyssey)
  - A Midsummer Night’s Dream (A Midsummer Night’s Dream)

As a part of their fall, one-semester English and History requirement, Belmont Hill Seniors have the option to enroll in courses in the humanities program. Humanities courses are interdisciplinary classes that include cross-disciplinary thinking in English and the Social Sciences. A humanities course may count as either the student’s History or English requirement. Thus, students taking humanities courses will have the opportunity to
focus more intently on the discipline of their choice, whether it be English or History. Additionally, they will have the opportunity to enroll in a class the focuses more intently on un-siloed thinking.

ADVANCED AFRICAN-AMERICAN STUDIES
Form VI (Full Year)

The goal of this year-long, advanced course is to foster a better understanding of the complex experiences, both past, and present, of Americans of African descent. The multidisciplinary approach analyzing literature, historical texts, art, and sociological perspectives, will foster a framework for exploring the complex and diverse development of the African-American experience. The course will look to draw detailed parallels between historical and contemporary events, arts, culture, and institutions within and across the breadth of African-American history. Students will explore the Black experience in America drawing from primary and secondary sources, reading classic and contemporary literature while delving into music, social and print media, poetry, and film. Projects include traditional analytical essays, reflective responses, and presentations. Class-based group experiential activities promote perspective-taking and foster an in-depth and critical understanding of the varieties of the African-American experience and tradition. Students who are interested in this course are required to have maintained high marks in their Form V History and English Courses or have department approval prior to enrollment.

NATIVE AMERICAN STUDIES (Fall)
Form VI

This semester-long, question-driven, course is designed to explore Native American culture and history and give a greater sense of understanding of the Native American perspective in United States History. This course is intended to analyze the dynamic of Native American tribes, and highlight how the Native Americans were active agents in establishing their own history and contributing to the overall national identity of the United States. Native American Studies is intended to complement U.S. History by providing a more detailed reflection on the unique Native American individuals, clashes, and tribulations. Students will explore early Native American culture through the analysis of creation stories, as well as primary and secondary sources focused on religion, politics, economics and social interactions of early Native American tribes. In their review of the Native American experience, students will investigate encounters with European settlers and later the U.S. Government and its people, re-viewing the concepts of removal, assimilation, and termination and examining the various paths of resistance the Native Americans undertook, such as Pan-Indianism. Students will take an interdisciplinary approach by studying Native American art, literature, religion, and music, as well as looking at contemporary interpretations of Native American life in film and popular culture, such as the use of imagery and terminology in team logos. The course will conclude with an in-depth inquiry into current issues facing Native Americans, including tribal recognition, language revitalization, and education.

History and Social Studies

The History Department’s goal across our curriculum is to provide students with detailed subject knowledge while fostering essential skills, emphasizing critical reading, analytical writing, and insightful thinking. The Department’s course offerings require students to consider diverse perspectives in order to promote empathy and appreciation for our national and global community, utilizing a wide range of sources from textbooks and primary documents to websites and multimedia. The skills and learning will help students understand and succeed in our 21st-century
As a department, we are committed to engaging students in active daily discussion, relevant projects, and inquiry-based research.

**Ancient Greece and Rome**  
**Form I**

History 1 explores the history and culture of Ancient Greece and Rome. This survey course begins by examining the Bronze Age civilizations of the Minoans, Trojans and Mycenaean, drawing connections to the Greek mythology inspired by these cultures. It then moves on to study the development of the Greek city-states, with a particular focus on Athens and Sparta, culminating in the life of Alexander the Great and the spread of Hellenistic culture. The second half of the course examines the rise of Rome from a small village on the banks of the Tiber River to Pax Romana, when Rome’s empire extended well beyond the Mediterranean basin. The course emphasis is on study skills, with particular focus on critical reading, maintaining an effective notebook, essay writing and test preparation. A biographical paper in the spring about a historical character from the Classical world gives the students the opportunity to consider the role of heroes in history. A culminating experience for the entire Form is the participation of each class in the Greek and Roman Field Day held near the end of the year.

**U.S. Government**  
**Form II**

This required course provides an overview of the American governmental system. An introduction to the theoretical and historical background of our Constitution and system of government is followed by an in-depth study of the three branches of government and the separation of their powers. Special attention is given to the study of the Bill of Rights, which is examined by analyzing significant legal precedents that have come before the Supreme Court. Students are asked to examine our electoral system with a specific focus on how we elect our President and the effect a two-party system has on our democratic method of government. Finally, students complete an 6-8 page research paper in Chicago-Turabian endnote style to complete the course. Class meetings stress individual participation in class discussion as well as performance in debates and oral presentations. Frequent short papers and in-class essays are required.

**FORM III & IV REQUIREMENT**

At least two semesters of History must be chosen in Forms III & IV by boys who enter Belmont Hill in the Middle School. Middle East & China is a required course in Form III. In Form IV, students are required to take either one semester of 20th Century World History or a full year of AP European History.

Additional courses from the list below may be taken in form III on an elective basis.

**Offerings in Form III**

*Facing History f, s*

*Middle East & China f, s*

**Form III**

This semester-long course immerses students in the modern history of the Middle East and China. Through examination of these countries’ unique and storied histories, experiences with European contact, transformations into sovereign nations during the 20th century, and emergence as major global players in the 21st century, students come to understand core concepts that pertain to economic, political, and national identity development. Drawing upon diverse historical, primary and secondary written and audio-visual sources, the course challenges boys to explore and articulate their questions and understanding via Harkness discussions, negotiation simulations, and individual research, writing, and presentations. This course aims to provide students with a deep under-
standing of the key historical patterns that have shaped these modern states so that they have the tools and knowledge to discuss contemporary issues in the Middle East and China. As students become more adept at reading, interpreting, and analyzing history, they will become more confident in applying what they know to understand the world at large.

**Facing History**  f, s  
**Form III**

In this discussion-based course, students investigate a variety of social issues including racism, genocide, and discrimination in the twentieth century through case studies. In doing so, students examine the forces that led to these horrific moments in history and discover connections that impact their world today. The course also looks at the notion of “choosing to participate” by seeing examples of ways ordinary people challenged the status quo and advocated for change, while others stood by. Students additionally explore issues related to identity, belonging, justice, democracy, civic engagement, and activism throughout the course. Facing History utilizes primary and secondary sources, including videos and works of literature. Assignments include nightly readings, journal reflections, tests, several short research papers, and presentations.

**20th Century World History**  f, s  
**Form IV**

20th-Century World History is a semester-long survey that explores the key developments that shaped the twentieth-century world. Historical events and forces are examined through the lens of competing “big ideas” in economics, politics, and society such as core v. periphery; authoritarianism vs. political liberalism; protectionism vs. economic liberalism vs. socialism; nationalism vs. Europeanism; paternalism vs. self-determination. Through small and large group discussions centered around primary source interpretation and analysis, the course prompts students to identify these big ideas at work in the world and understand how the perspectives and goals of the various countries involved guide their actions. Many of these conversations reference and build upon the themes explored in the Form III course on the Middle East and China. Additionally, the course focuses on the development of critical skills, and students are assessed on the critical reading of primary and secondary sources, and the use of critical writing to formulate an argument. The course culminates in a 6-8 page independent research essay.

**AP Modern European History**  
**Form IV**

This course is a full-year elective for students possessed of a strong interest and ability in the study of history. Opening with a study of the Renaissance, the Reformation and age of absolutism, the AP course commences at an earlier point than our regular 20th Century World History course. As such, while it concludes with contemporary European topics and addresses all of the same themes, it moves at a faster pace and is more comprehensive, specifically preparing students for the Advanced Placement examination. Both the AP and regular courses emphasize skills of thoughtful reading, active discussion, test preparation and critical writing.

**Two separate comprehensive full year courses in United States History are offered. Students are required to take one of them in Form V. Each course includes a major required research paper.**

**U.S. History**  
**Form V**

U.S. History immerses students in the characters, conflicts, compromises, and controversies that define the uniquely American story. Through a question-driven curriculum, we investigate critical periods in U.S. History, from the Colonial Era to the Modern Presidency, including the Obama years. The periods
are broad, yet they do not cover every-thing. Our goal is to dive deeper into each subject, allowing for time to reflect on important events and ideas from a range of perspectives. Our objective in teaching this course is to em- power students to confidently discuss and coherently analyze major issues in American history as well as understand the historical context underlying today’s conflicts and crises. The culmination of the course is a 12-page independently researched essay.

**AP U.S. History**

Form V

AP U.S. History is designed for the student with a well-defined background and interest in history. Indi-vidual responsibility for most assigned reading is assumed, allowing extensive class time for thorough examination of selected issues, events, and concepts. Frequent papers, oral presentations, and deep classroom discussions foster clarity of thinking and historical argument-ation. A wide variety of supplemental readings is used to complement the primary textbooks. All students com-plete a major research paper and take the American History Advanced Placement examina-tion in May. A minimum of an A- in Modern European History or a B+ in AP European History or department approval are required for enrollment in AP US History.

One of the following courses must be taken by each student in his senior year. He may elect to take more than one. All are semester courses except Advanced Economics: Macroeconomic Theory and 21st Century Conflict, which is a full-year commitment.

Advanced Economics: Macroeconomic Theory and 21st Century Conflict

(Full Year)

Form VI

How have the international order and the global economy been constructed? What dynamics are likely to pose significant threats to this structure? How can an exploration of history inform our view of conflict to help us understand it in a more nuanced and authentic way? This course will apply a multidisciplinary approach of advanced economic theory, history, and political science to cultivate a framework for exploring the historical sources and economic impacts of the defining political conflicts of the modern era. Over the course of the year, our study will introduce the philosophy and structure of the global economy as well as key economic sectors influencing state decision-making, the competing theory of political realism, and general commentary on the current state of international politics, before turning to five case studies of conflict that will serve as the pillars of this course’s inquiry. For each case study, students will apply a realist, historical framework to explore the relationship between two nations that find themselves in conflict in the modern age before exploring the challenges that this dynamic poses for the global economy. This will culminate in a final project in which each student presents a research thesis and a lecture-based defense, collectively exploring the economic implications of modern global conflict. By the end of the course, students will have an understanding of the conflicts likely to dominate 21st Century geopolitics and global financial markets, as well as a framework for evaluating future conflicts. Students who are interested in this course are required to have maintained high marks in their Form V History and English Courses or have department approval prior to enrollment.

African American Studies (Fall)

Form VI

The goal of this semester-long course is to foster a better understanding of African-American identities and the struggles that have produced Black culture in this country. Although only an introduction, the course is am-bi-
tious, drawing parallels between historical and contemporary events, arts, culture, and institutions within and across the breadth of African-American history. Intentionally multi-disciplinary, the course moves beyond the traditional boundaries of a history course. Students explore the Black experience in America drawing from primary and secondary sources, reading classics such as Lorraine Hansberry’s Raisin in the Sun and Solomon Northrup’s 12 Years a Slave, while delving into music, social and print media, poetry, film, and video. Projects include traditional analytical essays, reflective responses, and presentations on a variety of subjects. Class-based group experiential activities promote perspective-taking and foster an in-depth and critical understanding of the varieties of African-American experience and tradition.

American Politics and Policy (Fall)
Form VI
The goal of this course is to provide seniors with a set of conceptual tools to facilitate well-informed, coherent reasoning about American politics and policy. This course introduces students to the competing players in the American political system and to the distinctly American institutions within which they vie for power over the policy process. Students learn and apply theories to analyze past political outcomes as well as present-day politics. Students are expected to keep abreast of daily political developments in addition to assigned readings and analytic writing. Our final project dives deep into a policy arena of choice and will include the impact of presidential, party, and congressional politics on the outcome of legislation.

Global Economy (Fall)
Form VI
This semester course examines key issues in the international economic community. In the first part of the course, we will explore major micro-economic and macroeconomic concepts. From there, we will branch out to investigate the basics of globalization and development, examining how these issues play out in different regions of the world. We will use Charles Wheelan’s Naked Economics as our main text for the first half and draw from an array sources in the second. These include handouts, online newspapers, scholarly articles, and audio-visual sources. By the course’s end each student should be able to assess broad patterns at play in the international community and draw his own conclusions on the challenges and important issues facing the United States in today’s global economy.

International Relations (Fall)
Form VI
This course introduces students to classic and contemporary theories of International Relations in order to analyze and understand the major crises and conflicts that dominate today’s global politics. We will examine the clash of ideas and ideologies in the post-9/11 world and we will attempt to answer critical questions such as: what is power in the modern world and who holds it; and how do nation states function in an “age of terrorism”. Our case-study driven analysis covers a range of regions and conflicts including the war in Syria and the rise of ISIS, Chinese territorial expansion in the South China Sea, drug wars in Mexico, and the immigration crisis in Europe. We will also consider the role of the United States in international conflict and cooperation, and evaluate the strengths and weaknesses of international organizations from the UN to NGOs. Students are expected to keep abreast of world news, engage in daily discussion on assigned readings, and complete projects, all of which have written and class presentation components.
World Religions (Fall)
Form VI

This semester course will take an interdisciplinary and comparative look at the concept of Faith and explores the sacred stories, texts, images, sounds, and traditions of the five major world religions: Hinduism, Judaism, Christianity, Islam, and Buddhism. The course is centered around the essential questions: what is religion?; what is sacred/profane?; how have religions shaped world history and cultures?; what does religion shape community?; what does it mean to be observant? Beyond text and tradition, students examine how faith communities have evolved (and often splintered) over time, as well as consider some of the conflicts that have shaped, and continue to shape them. Centered on lived religion, the course explores the living practices of each tradition through assignments that call for reflection, meditation, and the analysis of scripture and rituals of faith.

Facing History (Not offered 2021-2022)
Form VI

Through the study of events such as the Holocaust, American slavery, and the ethnic wars in the former Yugoslavia, students examine historical and current situations that involve decision making on a moral level. They are asked not just “What happened?” but also “How could it have been prevented?” and “How can it be avoided in the future?” The materials are books, readings, videos, guest speakers, and a daily reading of the New York Times. Students are expected to show a thorough knowledge of the events studied via tests, essays, class discussions, and reports. They also practice critical thinking and decision making through oral and written analysis of the various questions and essay prompts. The final project requires that each student research, prepare, and present a written case study of a specific, historical moral dilemma.

History of South Africa (Fall)
Form VI

In 2019, South Africans will celebrate 25 years of a post-apartheid country. In his 1994 inaugural speech Nelson Mandela spoke to the hopes of many South Africans when he pronounced that “out of the experience of an extraordinary human disaster that lasted too long, must be born a society of which all humanity will be proud.” He explained to the tens of millions watching from all over the world that “our daily deeds as ordinary South Africans must produce an actual South African reality that will reinforce humanity’s belief in justice, strengthen its confidence in the nobility of the human soul and sustain all our hopes for a glorious life for all.”

By many measures, the hopes and dreams of South Africans in 1994 have failed to measure up to these aspirational words of one of the most iconic leaders of the 20th century. While South Africa continues to have the largest economy in Africa, it is also a country, which continues to struggle with economic inequality, political corruption, and a high crime rate.

The goal of this course is to allow seniors to explore issues of race, economics, politics, and social justice from an African context, using South Africa as a case study of the past, present, and future of this continent.

Mathematics

The courses offered by the Mathematics Department provide discipline in clear thinking and logical reasoning, both inductive and deductive. By investigating topics from different viewpoints – algebraic, graphic, verbal, numeric and real world–students learn appropriate techniques of problem solving in order to focus as much on the process as on the product.

All students are prepared at appropriate levels for the College Board SAT I and
SAT II. The course of study typically culminates with one of the two levels of Advanced Placement Calculus and/or Advanced Placement Statistics or with regular levels of Calculus and/or Statistics.

At all levels, technology plays an important part. Teachers use Smart-Boards extensively, and all students use TI-83 or TI-84 graphing calculators. The appropriate uses of technology are emphasized, more to enhance the student’s capacity to explore mathematics without the burden of undue computation than to foster reliance on the technology. Department assessments may be given both with and without available technology. (Students and parents are referred to the calculator policy in the Student-Parent Handbook.)

The department expects students to acquire sound mathematical literacy, applicable technological skills and an interest in the subject in preparation for their college and work experience beyond Belmont Hill.

Pre-Algebra
A course in the fundamental operations of arithmetic, illuminated by the introduction of topics which students will encounter in later Algebra and Geometry courses.

Text:

Advanced Pre-Algebra
A course in the fundamental operations of arithmetic, illuminated by the introduction of topics which students will encounter in later Algebra and Geometry courses.

Text:

Algebra 1
An introductory course in elementary algebra covering topics through the solution of quadratic equations.

Prerequisite: Pre-Algebra
Text:
Algebra 1, Martin-Gay

Advanced Algebra 1
An introductory course in elementary algebra covering topics through the solution of quadratic equations. This course includes investigation of real-life applications facilitated by use of calculators.

Prerequisite: Pre-Algebra or its equivalent.
Text:
Algebra 1, Martin-Gay

Geometry
This course ordinarily follows Algebra 1 and will provide a thorough and complete overview of plane, solid and numerical geometry, including algebraic applications and work with proofs.

Text: Glencoe Geometry 2018, eStudent Edition

Advanced Geometry
This course follows Advanced Algebra I. An introductory course in plane and numerical geometry with applications in solid geometry. Various methods of proofs will be introduced while also reinforcing Algebra skills.

Text:
Geometry for Enjoyment and Challenge, Rhoad, et al.

Algebra 2 and Trigonometry
This course is the continuation of Algebra 1. Topics include rational and irrational numbers, solving rational, quadratic and simultaneous equations, inequalities, trigonometry, logarithms, functions and graphing, factoring, and formulas.

Text: Algebra 2 and Trigonometry: Structure and Method, Book 2, Dolciani et al.
**Advanced Algebra 2 and Trigonometry**

This course is the continuation of Advanced Algebra I. Specific topics include complex numbers, conic sections, trigonometry, logarithms, functions and graphing.

Text: Algebra 2 and Trigonometry: Structure and Method, Book 2, Dolciani et al.

**Introduction to Pre-Calculus**

This course integrates ideas of functions and trigonometry with the statistics and data analysis necessary for a person to function successfully in today’s quantitative world. It builds understanding of real-world problems while establishing a foundation for future work in mathematics courses. Applications and modeling excel will also be integrated into the course. Students will be given extensive preparation for the SAT and the ACT tests.


**Pre-Calculus**

This course follows Algebra 2 and Trigonometry or Advanced Algebra 2 and Trigonometry for students who intend to go on in mathematics or applied sciences. Topics include analysis of functions, curve sketching, techniques of solving equations, advanced trigonometry, exponents and logarithms, and sequences and series. We hope to explore some of the topics of basic Statistics if time permits.

Text: Advanced Mathematics, Brown

**Advanced Pre-Calculus**

This course typically follows Advanced Algebra 2 and Trigonometry, and its syllabus is similar to Pre-Calculus, with the addition of vectors, matrices, and limits. The topics will be treated more rigorously, and greater emphasis will be placed on proof. Ordinarily, students will be expected to go on to Calculus BC. Students will be assigned to Advanced Pre-Calculus by the Mathematics Department.

Text: Advanced Mathematics, Brown

**Statistics**

This course provides a data-oriented introduction to the basic principles and techniques of statistical analysis, with an emphasis on financial and business applications. Topics covered include sampling and data collection, methods for summarizing data numerically and graphically, probability, distributions of random variables, basic inference methods for both quantitative and categorical data, and simple linear regression. The course also explores the fundamentals of supply and demand, interest and debt, and investing. Techniques for formatting, summarizing, and analyzing data in Microsoft Excel are integrated throughout the course, with exploration of other software applications as relevant.


**AP Statistics**

This full-year, non-divisible course covers the complete Advanced Placement statistics curriculum, including exploring data, planning a study, probability and behavior of random variables, statistical inference, and linear regression. It also includes a unit on modeling and a number of special projects and readings intended to help students connect the topics studied with real-world applications. Students are required to take the AP exam in May.

Text: Advanced High School Statistics, 2nd ed (free online text) by David Diez et al.
Prerequisite: Advanced Algebra and Trigonometry or the permission of the teacher

**Calculus**

Introduction to Calculus covers the basics of the traditional theory and techniques of differential and integral calculus. Equally important will be the significant emphasis on the many applications of calculus. These include such areas as finance, economics, business, motion of an object (e.g., velocity and acceleration), and population growth (both exponential and logistic, through the study of differential equations).

Text: none

**AP Calculus AB**

This full-year, non-divisible course in elementary calculus covers the syllabus for the AB, CEEB Advanced Placement Examination in May, which students are required to take. Prerequisite: Completion of Advanced Pre-Calculus, A in Pre-Calculus. Exceptions considered by Department Chair.


**AP Calculus BC**

This is an extensive, rigorous, non-divisible, full-year calculus course designed to meet the syllabus of the BC, CEEB Advanced Placement Examination in May, which students are required to take.

Prerequisite: Advanced Pre-Calculus


These courses are intended for students who have successfully completed BC Calculus and are interested in studying upper level mathematics. Students in the course work collaboratively to develop rigor in both the notation and language of mathematics. Largely through problem-solving exercises, students spend time learning how to use computer algebra systems to work with realistic mathematical models and systems.

Prerequisite: AP Calculus BC

Text:

**Multivariable Calculus:**

*Multivariable Calculus, James Stewart, 4th Edition*

**Linear Algebra:**

*Linear Algebra with Applications, Otto Brescher*

**Modern Foreign Languages**

The Modern Language Department’s primary goal is to introduce and develop proficiency in Spanish, French and Mandarin Chinese communication. In doing this, we strive to impress upon students the importance and enjoyment of acquiring a second language and learning about other cultures. To achieve this goal, our classes, beginning with the lowest levels, are conducted exclusively in the target language. Through class activities, homework, and use of the newest technology in the school’s multimedia classroom, the students are able to improve their spoken, written, reading and listening skills. In addition, classes at every level participate in field trips and have the opportunity to hear guest speakers in order to better appreciate the culture of the language they are studying.

Although Belmont Hill students are required to complete the third level of a language, most students opt to continue with their studies. Students begin in seventh grade and can pursue their language through the AP level. As a department, we offer AP language and AP literature in French and Spanish and prepare the Chinese students for the SAT II. In addition, for students who have a love of the language and/or culture but do not feel ready to take an
AP course, there are opportunities to continue with each language outside the AP level.

Finally, we actively encourage our students to immerse themselves firsthand in cultures where the target languages are spoken, through participation in our spring vacation trips, the School Year Abroad program in Spain, France, and China, or through an array of summer programs.

New students intending to study a modern language must take an oral and a written placement test in the spring before their enrollment if there is any question about the appropriate level for their placement.

First Form Modern Language: Spanish, French or Chinese

In the fourth quarter of the Form I year, students begin the study of a modern language. They can opt to take Spanish, French or Mandarin Chinese. This course is an introduction to the language and serves the following purposes:

- to begin to provide students with a knowledge and understanding of the culture
- to teach the basic structure of the language and how words/characters fit together
- to practice comprehension, both written and listening
- to practice speaking and using accurate pronunciation and/or intonation
- to introduce students to the multimedia center to enhance their study of language
- to use songs, games, and rhymes to increase excitement for and interest in the language

Though no formal textbook is utilized, there are numerous handouts, references to Internet sources as well as the use of a picture dictionary. Students learn vocabulary and develop fundamental writing skills, but the primary emphasis in this course is on developing listening and pronunciation skills and on learning strategies useful for language acquisition in subsequent courses at Belmont Hill. Active participation in class, frequent role-plays, daily homework, singing, projects, and use of flashcards will all be part of the Form I modern language classroom experience.

French 1

In this introductory course, basic French oral and written comprehension and expression skills are developed. Considerable oral practice and frequent exercises help students to begin to master French grammar, and to rapidly expand their vocabulary. Students learn to converse about important ideas in French, including describing themselves, and responding to a French speaker with ease about myriad topics. Students also learn to write effectively in French, using the present, future, simple past and imperative tenses. Through viewing video cassettes in French, students develop a better sense of understanding the grammatical and cultural lessons which are presented to them each day, also. Through selected readings, including poetry and a short novel, students begin to develop basic literary analysis skills which they will continue to improve in subsequent French courses. Each student is also required to research and give his own PowerPoint presentation on a country where the language he is studying is spoken, during the third quarter.

Text: D'accord! Level 1

French 2

Students will expand their vocabularies and learn to use more sophisticated grammatical structures, including the imperfect, future, and conditional tenses, and the subjunctive mood. They will be required to speak in French in order to practice their oral communication. Many supplementary readings from well-known franco-phone authors
and the study of one/two films offer topics for classroom discussion, and with regular journal entries, written skills continue to be honed. Finally, the students will also be exposed to the culture of the French-speaking world by the study of various countries, cities, monuments and the completion of a PowerPoint project.

Text: D’accord! Level 2

French 3
The basic grammatical structures of French are reviewed and fine-tuned. The study of different grammatical tenses and moods, including the imperative, imperfect, pluperfect, conditional and subjunctive, allow students to improve their oral and written comprehension of the language. Through extensive practice speaking, reading and writing, students improve their abilities to express themselves in the language, also. In addition to the study of grammar, and vocabulary building, students read four challenging books over the course of the year. In doing so, they build their vocabulary, learn how to analyze characters and themes, and are introduced to the culture and lifestyles of various French-speaking countries. They are required to write medium-length to long compositions on each work. Each student is also required to research and give his own PowerPoint presentation on an important person in French history during the third quarter.

AP French Language and culture
As the name suggests, this course focuses on honing the students’ written and spoken proficiency while building on their deeper understanding of the French-speaking world by reading articles, poems, websites and excerpts from novels and by listening to interviews, podcasts, newscasts, etc. Throughout the year, students will explore the six topical and cultural themes set out by the College Board. These themes are vast and often intermingle. They serve as spring-boards for our discussions and work in and out of the classroom. This idea of cultural understanding and cultural comparison is the basis for this course. The language is the scaffolding we use to discuss and write about it. Along the way, students will also familiarize themselves with the different sections of the AP exam which is taken in May.

Advanced French 5
In this advanced French course, boys are able to explore areas of French and the French-speaking culture that are of interest to them. We explore literature, by reading and discussing short stories by Maupassant, a selection of francophone poetry and, depending on time and interest, L’étranger by Camus. We discuss current events by reading articles and listening to newscasts on TV5, RadioFrance, RadioAfrique or the like. We watch two movies, one from Martinique and one from France. From casual conversations to formal debates to regular presentations, students further develop their listening, speaking and cultural proficiency in a completely immersive environment. This course is for students who have completed through level 4 or AP.

Spanish 1
Basic oral and written comprehension and expression skills are developed. Students learn to converse about daily living situations, and they rapidly expand vocabulary. By June they are able to do limited narration and description in the present, past and future tenses.

Text: Descubre 1

Advanced Spanish 1
Advanced Spanish 1 is designed for students who have strong language-learning skills. In addition to covering the Spanish 1 curriculum at a significantly faster pace, the boys will learn and use several verb tenses that are covered in a typical Spanish 2 course.
Students will acquire a more expansive active vocabulary by dint of supplemental readings, audios, and videos.

Text: **Descubre 1**

**Spanish 2**

Students expand their vocabularies and learn to use more sophisticated grammatical structures, thus enabling them to express themselves with greater precision. Supplementary readings offer topics for classroom discussion. Basic written composition skills are developed and practiced, and short stories are read during the course of the year.

Text: **Descubre 2**

**Advanced Spanish 2**

For students who have demonstrated exceptional skill in Spanish 1, this course focuses on developing a student’s proficiency in Spanish, both spoken and written, while building vocabulary and developing an advanced grammar base. All this is done at a much faster pace than in Spanish 2. Students should come prepared to actively participate in Spanish and to constantly push themselves in order to communicate at a more advanced level. Students need the recommendation of their current Spanish teacher in order to place into this advanced level 2 course.

Text: **Descubre 2, Vista Higher Learning**

**Spanish 3**

In Spanish 3, the emphasis is oral communication. The course does not use a textbook. It is a proficiency-based course, which follows the main and most recent guidelines from the American Association of Teachers of Foreign Languages (ACTFL). It is based on a teacher-created, student centered syllabus, focused on real life and culturally-rich scenarios, which also prepare them for Spanish 4. The emphasis is on differentiated instruction, encouraging each student to show what they “can do” with the language, making progress within the proficiency ladder, which at this level is considered Intermediate Mid (Intermediate Mid low to Intermediate Mid high). Students acquire proficiency in different communication modes: interpretive (reading and listening comprehension); interpersonal (non-rehearsed oral communication); and presentational (writing; presenting). They also practice doing circumlocution to sustain communication. Useful words such as connecting words, and conversational expressions and phrases are also required for their communication to be richer, more fluent and authentic. Grammar is not the focus; it is highlighted in context and rarely assessed out of context. Most communication happens in the present tense, with some attempts to use the preterit and the future, when needed. Students are immersed in Spanish 90-100% of the time during class.

**Advanced Spanish 3**

Spanish 3A is an honor level course, geared towards students who have demonstrated outstanding ability in Spanish language and whom the modern language teachers have identified as excellent candidates for the Spanish AP language test, to be taken after level 4. In this course, students continue to develop their skills in all of the areas of the Spanish language: listening, speaking, writing, reading comprehension and cultural literacy. They read and listen to a wide variety of media, from newspaper and magazine articles to newscasts and Internet blogs. They hone their oral and writing skills not only to create correct sentences but to formulate and express opinions and thoughts in Spanish. Finally, they read several short stories that begin to teach them how to understand and analyze Spanish language literature. At the end of the course, students are conversant in Spanish and
on their deeper understanding of the Spanish-speaking world by reading articles, poems, websites and excerpts from novels and by listening to interviews, podcasts, newscasts, etc. Throughout the year, students will explore the six topical and cultural themes set out by the College Board. These themes are vast and often intermingle. They serve as springboards for our discussions and work in and out of the classroom. This idea of cultural understanding and cultural comparison is the basis for this course. The language is the scaffolding we use to discuss and write about it. Along the way, students will also familiarize themselves with the different sections of the AP exam which is taken in May.

Spanish 5
This one semester course is thematic based, using our short-stories book, Album, to guide us through various readings. We begin with Women in the Spanish-Speaking world, Good and Bad luck, and One’s Conscience, culminating with How to Better One’s circumstances. Every theme is accompanied by several short stories and regular visits to online resources, exposing students to authentic sources and current-day situations. This class is conversation based, and students are required and expected to present both individually and in groups throughout the semester. Throughout the course students are practicing reading, listening, writing and speaking, culminating with an individual 10 minute presentation about what it would be like to professionally work in the Spanish-speaking world after college.

Advanced Spanish (Not offered 2020-2021)
This one semester course typically follows Spanish 4 and allows the students to continue with Spanish into their senior year. Focusing on short stories, movies and current events,
students read, discuss, analyze and prepare cultural presentations. Through these activities, the students are able to continue to develop and maintain their spoken and written Spanish. Spanish is spoken exclusively in the upper level course.

**AP Spanish Literature**  
(not offered 2020-2021)

This course, which covers selected works from the literatures of Spain and Latin America, prepares qualified students for the Advanced Placement Spanish Literature examination. The emphasis of this course is on critical thinking, discussion and – especially – writing skills in Spanish. This course thus prepares students:

1. to understand a lecture in Spanish and to participate actively in discussions on literary topics in Spanish;
2. to do a close reading of literary texts of all genres in Spanish; and
3. to analyze critically the form and content of literary works (including poetry) orally and in writing using appropriate terminology.

Required authors this year will include Jorge Luis Borges, Federico García Lorca, Gabriel García Márquez, Ana María Matute and Miguel de Unamuno.

**Advanced Spanish 5**

Advanced Spanish 5 seeks to engage ambitious students wishing to continue their language proficiency beyond AP. This full-year course will have 3 components: tutoriales, where students will write, analyze, defend and craft essays pertaining to current events in the Spanish speaking world; literature, where students will take a deep dive into well-known pieces of literature from the AP Spanish list; and practicum, where students will collaborate with teachers of 7th grade boys to help teach, design curriculum, and aid middle-school students as they get their first glimpse of modern language at Belmont Hill.

**Chinese 1**

Chinese 1 is a highly interactive course designed to provide students with the basic skills necessary for meaningful communication in Chinese. With strong emphasis on listening, speaking, comprehension and writing, students explore the Chinese language through rhymes, poems, movement, role-playing and hands-on activities. Learning is also enhanced with cultural references to Chinese geography, customs, traditional games, and the art of the Chinese paper-cut. By the end of the school year, students will master Pin-yin, the Chinese sound system, and learn about 400 Chinese words. They will also understand the basic principles, traditions and philosophies of Chinese characters.

Text: Discovering Chinese 1/2

**Chinese 2**

Rigorous practice of spoken and written Chinese in more complex communication activities will be complemented by intensive drills to fine-tune pronunciation, expand vocabulary, and internalize more complex grammatical constructions. Basic writing skills are developed and practiced. Supplementary reading materials such as short stories are employed. Special emphasis is given to developing a greater fluidity and flexibility in expression and response. Students will be able to write a diary and social letters.

Text: Discovering Chinese 2/3

**Chinese 3**

The basic grammatical structures of Chinese are reviewed and fine-tuned, and more complex structures and vocabulary are introduced. Through extensive practice in speaking and writing, students improve their ability to express themselves in the language. Oral presentations provide students
with additional speaking opportunities. Selections from Chinese videos and other materials are used to deepen students’ knowledge and understanding of Chinese culture and ways of thought.

Text: Discovering Chinese 4

Chinese 4
The course includes frequent oral presentations and spontaneous conversation about various aspects of contemporary Chinese culture. Reading and discussion of supplemental materials and practice speaking Chinese in a variety of functional, everyday situations allow students to expand their vocabulary and to solidify previously learned grammatical structures. Selections of Chinese videos are used to deepen knowledge and understanding of Chinese culture. Although designed as a full-year course, it may be taken on a semester basis.

Text: Integrated Chinese 2 Part I

Advanced Chinese 4
In this course, students are expected to go beyond the normal rigor of Chinese 4, learning new and fascinating linguistic and cultural concepts at a faster pace. In addition to the Chinese 4 textbook, Integrated Chinese Levelb2: Part 1, we will also be using supplementary materials found in Magical Tour of China, as well as cultural videos to supplement evening assignments.

One of the most crucial skills of the 21st century is one’s ability to speak another language. In Advanced Chinese 4, we will thus be further strengthening these skills by having frequent student reports on cultural, political and otherwise language-related events. These reports will be proceeded by discussion of these issues, prompting further critical thinking about modern life in China and what it means to study Chinese Mandarin. Students will thus also expand their breadth and understanding of vocabulary through conducting research on said reports. While the report topics will be assigned (and are related to each chapter covered), students will have their choice in researching individual articles.

Text: Integrated Chinese 2 Part II

Advanced Chinese 5
Advanced Chinese 5 is a full-year course for students that have shown particular interest in and aptitude for the study of Chinese. In this course, students will be expected to go beyond the normal rigor of Chinese 5, learning similar material but in more depth and at a faster pace. This course is designed to further expand upon students’ knowledge of Mandarin Chinese through extensive oral and written practice and interaction. Lessons will be conducted in Chinese and developed from materials in the Integrated Chinese Level 2, Part 2 textbook and workbook, though several
other outside sources will be incorporated as well, such as Sina Weibo, Lingt Language and other resources. By the end of the year, students will be able to write about and discuss a variety of topics relevant to life in the 21st century using Mandarin Chinese such as holidays, traveling, religion, interviewing for study abroad programs, gender issues and equality, as well as several other culturally related topics. Students will complete the course having established a level of proficiency with which they may springboard into the next stage of their career in Chinese.

The Lingt Language Classroom online tool will be used to assess students’ oral skills through recorded practice, and frequent posts will be made by students on the largest micro-blogging website on earth, Sina Weibo. Aided by this multi-purpose tool, students will learn to move seamlessly between learning in our textbooks, class discussions and through the blogosphere, with which they may be exposed to more cultural trends and current issues. In addition, there will also be 2-3 tests per quarter, to assess the students’ acquisition of characters, their ability to write and their listening comprehension.

Advanced Chinese 5 is designed for advanced Chinese language students who seek to pursue their studies in a full year course in order to improve in all four areas of linguistic communication: listening, speaking, reading and writing. In order to sign up for this course, a student needs to have an A- or above in Advanced Chinese 4 or an A in Chinese 4.

Advanced Chinese 6 (Not offered for 2020-2021)

Science

In order to be educated, today’s citizen must have a sound understanding of the importance and applications of scientific and quantitative methods. Perhaps the scientific method is best described as an organized way of asking and answering questions in order to yield useful information. Our objectives are not so much to present subject content, although that is certainly part of the aim, as to develop the ability through classwork, laboratory exercises, and challenging problems, to use this organized method. There is no more solid groundwork for further study.

Science I

This three-quarter course takes an interdisciplinary approach to science instruction, exposing students to the fields of Earth Science and Chemistry. In addition, it emphasizes practical skill development for scientific investigation and experimental design. During the first half of the course, and exploration of Earth Science takes students through an enquiry of water resources, the atmosphere, and weather principles. Students strengthen their ability to answer questions through a more inquiry-based scientific method approach, learn how to test hypotheses through experimental design, and communicate their experimental results through data tables and graphs.

The second half of the course provides a survey of chemistry principles, including an introduction to matter, the periodic table, atomic structure and bonding. There is a strong emphasis on developing presentation and public speaking skills, as well as further development of data analysis through use of basic statistics.

As a culminating, two-month activity, they develop an experimental question, design an experiment to test their question, and communicate their data and results through various visual aids. This work is presented at the
annual Science Fest in March, which is an opportunity to showcase students’ scientific skills and knowledge acquired during the course. In the final analysis, the goal of this course is to instill a passion and interest in science and the scientific method, as well as provide students the academic tools necessary to succeed in future science courses.

*Introductory Physical Science*, f, s

This course is a semester laboratory course in Introductory Physical Science required in Form II. Students perform a well-planned series of experiments. Each boy keeps a detailed account of every experiment in his laboratory notebook, along with a record of the class results, a summary of the class discussion, and a generalized conclusion. The majority of concepts in the course are uncovered by the process of active scientific inquiry and guided reasoning. Students are encouraged to be less dependent upon the teacher and more confident in their own analytical ability.

Throughout the course, many lab techniques and analytical skills are developed: careful observation, precise measurement, clear organization of data, using proportions, problem solving strategies, significant figures, scientific notation, histogramming, and graphing. The metric system is used exclusively.

Topics include: volume vs. mass as a measure of matter, conservation of mass, characteristic properties, and separation techniques. The course culminates in a two-week long laboratory experiment known as the “Sludge Lab.” The experiment tests a boy’s ability to work with a partner to devise a procedure to separate and identify a mixture of unknown solids and liquids using the techniques they learned throughout the course. Students are evaluated on their ability to work in an organized manner with minimal direction from their teacher, to keep detailed records, and to accurately identify the components of the unknown mixture.


*Environmental Science* f, s (Form III)

This course is dedicated to the exploration of the range of environmental problems facing humankind as it moves into the 21st century. From resource depletion to environmental degradation, the course exposes students to these complex issues and the myriad social, scientific, technological, and ecological challenges they pose for the future.

Using a case study approach, a basic scientific understanding of each issue requires an interdisciplinary background – drawing upon geological, meteorological, atmospheric, biological, oceanographic, chemical, and ecological concepts and in establishing the connections between them. The conflicts between man and nature can then be considered and weighed as a holistic analysis of these complex issues is attempted. The course seeks to balance the study of problems with the search for new technologies and solutions and to promote a sense of optimism about the future. In the face of global challenges, the course is designed to put scientific information into a social context. While there is a lab component to the course, debates and discussions will also be held frequently so that students may share their perspectives. An ongoing environmental study performed in the local area or an analysis of data from a larger sampling collected over the Internet will allow students to share in the scientific assessment of several of these issues. A final project in the course can take one of a variety of public forms.
These ideas will be discovered through a series of projects, large and small, where students will be expected to work in teams and individually to create solutions to engineering challenges. Students will be expected to thoroughly document their engineering design process for creating these solutions in their notebook, which will aid them in constructing robust reports on their findings that will be due at the end of each project.

Projects include: building and designing self-propelled cardboard cars and steam powered putt-putt boats as well as competing in various mini-challenges such as mailing a Pringle, building the tallest paper tower, or synchronizing a marble run course.

The final culminating project is to design and then redesign a hypothetical apartment complex found in an area of Northern India that is susceptible to earthquakes. Each team is tasked with building and testing scaled models. Ultimately, students produce a proposal with real-world budgetary constraints identifying variables that would aide in “earthquake-proofing” their designs. These designs are then tested on shake tables simulating different sized earthquakes.


Computer Science I

This project-based course allows students to familiarize themselves with the fundamentals of task-oriented computer programming. The course seeks to foster creative thinking, teamwork, and problem-solving in a coding environment. Over the course of the semester students will acquaint themselves with program-
course designed for the student who has not been exposed to a previous life science course. Focus is on the practical applications of biology with less theoretical material than Biology AP contains. Development of fundamental skills such as problem solving, classifying, predicting, reasoning along with laboratory analysis and dissection are goals of the course.

The role biology plays in the everyday life of the student is also emphasized. Several of the topics covered through discussion and outside reading include health, nutrition, pollution, population growth and genetic engineering.

Text: *Biology*, Miller and Levine

**AP Chemistry**

Designed for those who are likely to continue science study in the future, Chemistry AP provides students with the necessary background in problem solving and laboratory techniques for more specialized study. Measurement and descriptive chemistry are emphasized at the start; quantitative methods and the theories of chemical bonding are built up during the year. The laboratory work is centered on experimental design, the use of technology to collect and analyze data, and the development of skills in analysis of unknowns. Students perform experiments that embrace topics such as energy and rates of reactions, chemical equilibrium, acid-base chemistry, gas laws and electrochemistry. Students are expected to take the Advanced Placement exam upon completion of their study.

Prerequisite: Concurrent enrollment in either *Pre-Calculus* or *Pre-Calculus A*.

Text: *Chemistry, the Central Science*, Brown, Lemay and Bursten
Chemistry
This course is designed to give students a working knowledge of the concepts and principles of chemistry that will empower them to make decisions on issues that directly affect their lives and the environment. The skills of analysis and logical thinking are emphasized in solving problems and performing laboratory experiments. Some of the main topics studied include the structure and function of matter, chemical energy, aqueous solutions, reaction rates and electrochemistry.
Prerequisite: Algebra 2.
Text: Fundamentals of Chemistry, Burns

Advanced Earth Science
The course begins with the introduction of the plate tectonic theory as a framework for understanding global features such as the distribution of earthquakes and volcanism, the origins of mountain building and the features of the ocean floor. Students then change their scale of observation from the global laboratory to the smallest clues the rock and fossil record provide which are the basis for unravelling 4.5 billion years of Earth history.
Like a great detective story, the study of geology is similar to putting together an immense jigsaw puzzle with most of the pieces missing. Students learn that the study of geology is a creative discipline and challenging, requiring an understanding of chemical, biological, physical, climatic, ecological and geological concepts. The origins of mass extinctions and other natural disasters speak to the student of a dynamic and evolving planet Earth, often unpredictable and always spectacular.
The course culminates with exercises which challenge the student to reconstruct paleoenvironments and millions of years of the earth’s history using all that has been learned about the genesis of rocks and associated structures, the importance of fossils, and relative age-dating relationships.
Text: The Earth – An Introduction to Physical Geology, Tarbuck and Lutgens

Advanced Marine Biology
This course is designed to rigorously pursue the following goals:
1. To provide the student with an understanding of the major ecological and evolutionary processes that shape past, present and future marine communities.
2. To provide the student with an understanding of the significance of marine biodiversity and global environmental changes, especially those affecting the marine environment.
3. To provide the student with an understanding of how policy issues relating to marine biodiversity and conservation are shaped by physical and biological characteristics of the marine environment.
4. The overall goal of the course is to enable students to be informed, educated citizens that are capable of understanding, discussing, and/or voting on issues related to the marine environment and its biodiversity.
5. The course will have an active learning component, with participatory discussion by both the teacher and students.
6. The course will be integrated by a common set of principles across all topics covered, i.e., we will identify a foundational set of environmental, ecological and evolutionary processes that organize marine communities across all of the major marine habitats considered.
**Advanced Elective in Exercise Physiology Forms V& VI, fall**

In this course, students will understand how the body reacts and adapts to exercise, how physical performance is affected by environmental stressors, and how to analyze and interpret tailored training regimes. We will start our discussion at the level of biochemistry and then move to human physiology. From there, we will focus on the physiology of sports. Topics will include oxygen consumption and energy expenditure, the metabolic response to exercise, and the science of food. Once the student has a strong understanding of the underlying principles, we will turn to the physiology of performance, factors limiting all-out aerobic activity, endurance training, and injury. The format of the course will center on seminar-style discussions and laboratory exercises. This course is open to Juniors and Seniors.

**Physics**

*Physics* is an algebra-based course that provides a comprehensive introduction to classical and modern physics. Topics of study include Newtonian mechanics, thermodynamics, electricity and magnetism, wave and geometric optics, as well as topics in modern physics, such as radioactivity and quantum mechanics. Emphasis is placed on the significance of the transition from the Aristotelian physics towards the development of modern and non-intuitive ideas like wave-particle duality and relativity theory. Physics is a laboratory-based course, allowing for the exploration of inquiry-based (both guided and open) laboratory exercises, where students examine the laws of physics in real world settings with the use of modern probes and sensors for data acquisition. Through these lab exercises, students will develop a robust sense of experimental uncertainty, and craft ways to minimize error when collecting data. Students in Physics will be asked to reflect upon their findings in the lab by maintaining a laboratory notebook. Ultimately, this course is designed to be broadly beneficial to those wishing a solid introduction to physics whether or not they intend to go in the natural sciences.

Prerequisite: *Algebra 2 and Geometry*

Text: *Physics*, Giancolli

**AP Physics 1**

Advanced Placement Physics I is the equivalent to a rigorous first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It will also introduce electrostatics and electric circuits. Students will keep lab journals and will be heavily tested while following a college level syllabus.

Prerequisite: *Concurrent enrollment in a calculus course.*

Text: *Physics*, Giancoli 7th Edition

**AP Physics C**

*Advanced Placement Physics C* is the equivalent of two rigorous second-semester college courses in calculus-based physics. Fundamental algebraic principals will be introduced and further explored with calculus. The first half of the course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; including changing accelerations and drag forces, while the second half of the year will delve into electricity and magnetism. Students will keep lab journals and will be heavily tested while following a college level syllabus.
Prerequisite: Completion of or concurrent enrollment in AP Calculus BC


**AP Environmental Science**

Designed to build upon the environmental science curriculum taught in the ninth grade, the AP Environmental Science course provides students with the scientific principles, concepts, and methodologies necessary to solve environmental problems. This course will allow students to understand interrelationships in the natural world, identify and analyze environmental problems, evaluate the relative costs of environmental degradation, and develop solutions for these environmental issues. Environmental Science is interdisciplinary; it embraces and utilizes a variety of topics from different areas of study, including ecology, chemistry, geology and biology, economics, and politics. The course includes rigorous discussion and debate, laboratory investigations, inquiry-based and student-centered experimentation, and the reading of environmental literature. Students are expected to take the AP exam in May.

Prerequisites: Environmental Science, Biology, and Chemistry.

**AP Computer Science Principles**

This course is designed for students who have moderate to no prior experience coding, with a little more than half the content covering programming fundamentals and the rest covering topics around computer science such as: how the internet works, algorithms, cybersecurity, data science and machine learning, and the software development life cycle. The class is intended to serve both as an introductory course for potential computer science majors, providing a solid foundation for future study, and as a course for people who will major in other disciplines who want to be informed citizens in today’s technological society. The course is recommended for students who have a strong interest in logic and problem solving, languages, and technology, as well as those who seek to develop their programming skills.

**AP Computer Science A**

The goals of the AP Computer Science A course are comparable to those in the introductory course for computer science majors offered in many college and university computer science departments. The course is most suited to students who have some degree of programming experience already, although particularly motivated students without prior programming experience should also be able to do well. AP CS A goes into depth with the Java programming language, and topics covered include programming fundamentals as well as object-oriented programming and inheritance, multidimensional arrays, and recursion. Throughout the year we will prepare for the AP exam, which is a combination of multiple choice questions and free-response programming questions.

**Belmont Hill’s Signature Sixth Course Programming**

In the fifth and sixth form students are eligible to enroll in one of the options below as a sixth course. These courses are collaborative and project based. Student enrollment in them is subject to a rigorous application process.
Advanced Action Research
Form V

Belmont Hill’s Advanced Action Research (AAR) Program emanates from its membership in the School Participatory Action Research Collaborative (SPARC), a consortium of 11 independent schools in partnership with the Graduate School of Education at the University of Pennsylvania.

The purpose of this partnership is to provide diverse groups of students with college-level social-science research skills and experience to improve school culture, policy, and practice. Student groups at each school conduct a research project that examines a central aspect of school life and develop action steps or recommendations that address the topic selected. At the end of the school year, these student groups present their research projects at a roundtable conference held on campus at the University of Pennsylvania. Student groups also present their research at school-wide assemblies, at faculty meetings, and to their board of trustees. The fundamental goal of this partnership is to empower students to inform school change in meaningful ways.

Advanced Science Research
Form V and VI

In the Advanced Science Research (ASR) course, students build upon their existing classroom knowledge from the science curriculum to conduct empirical projects in areas of cutting-edge scientific research seldom open to high school students.

With the school’s close proximity to some of the best universities and hospitals in the world, enrolled students are placed with mentors in local research facilities. Students learn how to conduct the “business” of doing research in the real world at their placements. ASR is modeled after a handful of such courses around the country. Students work intensively and closely for four-five hours in a laboratory with a mentor who is a professional research scientist. Students then write an extensive review/research paper in scientific journal format, presenting the results of their year’s research to their mentor, members of the Science Department, and others in the Belmont Hill community.

Students will have the opportunity to delve extensively into the nuances of their chosen field. They will supplement their research with meetings on campus with their classmates and the course instructor. There, they examine current scientific journal articles and explore the framework of the techniques they utilize in the laboratory.

Prerequisites: Biology

Biomedical Engineering
Form VI Fall

Biomedical Engineering is an online course that introduces biomedical engineering by modeling biological systems and designing experiments to test those models and introducing engineering principles to solve design problems that are biological, physiological, and/or medical. Students will model human efficiency and the cardiovascular system. Students are expected to use the informational content being taught in math, physics and biology and to apply this knowledge to the solution of practical problems encountered in biomedical engineering. You will learn about Biomedical Engineering from experts in the field through lectures, assignments, and hands-on design projects. Students will receive college credit at Johns Hopkins University.
**Independent Study**

The Independent Study program is designed to make it possible for a student to pursue an interest which is not included in the school’s academic course offerings. To this end the Dean of Studies considers proposals from boys, consults with his teachers and advisors, offers suggestions and sponsors projects which they feel will advance the development of the student. These projects may be of a traditional nature, such as a research project or taking a course at a neighboring school or college, or they may involve such activities as working for a politician, museum, or local institution. The type of proposal which will be accepted is limited only by a judgment of what is in the best interests of the boy.

Projects may be given academic credit, but in past years many have not been for credit. In order to be eligible for credit, a project must have the academic substance of a course for at least one semester, and it must also be evaluated. Students doing projects for credit have the option of receiving a letter grade or a pass-fail rating.

Successful projects in the past have included such varied interests as a study of cartooning at deCordova Museum, designing a rural housing project, writing a history of the Castro Revolution in Cuba, teaching at Belmont Day School, writing an ideal curriculum for Belmont Hill, and investigations into gel electrophoresis and magnetic imaging.

Applications for projects involving academic credit for the first semester must be in the Director’s hands by June 1 and for the second semester by mid-December.

Applications for projects not intended for academic course credit may be submitted at any time.

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**Health**

The Belmont Hill health and wellness program for forms I-IV aims to empower young men to lead a healthy physical, mental and social lifestyle. The class occurs on a weekly basis for one season each year and provides students an opportunity to discuss a variety of relevant topics related to the ongoing changes and challenges they are encountering. The curriculum is progressive in nature and addresses issues that are timely in a student’s development with topics that include: Nutrition, relationships, safety, sleep, exercise, stress management, sexuality, consent, substance use and abuse, and social media.

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**Ethics**

All boys in Third Form (9th grade) participate in an Ethics course taught by the Head of School. This seminar-style, case-based course meets one afternoon per week for one-third of the school year. The course aims to engage boys to think and talk about some of the important and complex issues in their lives and in the world around them. Listening to a case and then discussing it, the boys are pushed to think not only about what they believe, but why they believe what they believe. Often using cases covering current events or school issues, the class explores ethical issues relating to medicine and health care, war, racism, drinking, sexual behavior, homophobia, peer pressure and bullying.