The Educational Program

Phillips Academy's educational program comprises academic, athletic, and community dimensions. The Blue Book describes the opportunities, requirements, responsibilities, and expectations associated with these different elements. The Course of Study describes the required elements of the educational program and includes the course catalog.

The Trimester Plan

The academic year is separated into three trimesters. Within a given week, classes are scheduled to meet according to varying patterns. Many departments offer yearlong courses, as well as those that are term-contained (completed in one trimester). The diploma requirements are stated as yearlong sequences or trimester courses, depending on the academic area involved.

Diploma Requirements

The basic diploma requirement is the satisfactory completion of a four-year secondary school program, of which at least three trimesters must be at Andover. The student must be in good standing (not on probation or under suspension) at the time of graduation. A student who has been dismissed is ineligible for a diploma unless readmitted.

Course Enrollments & Cancellations

The school sometimes cannot offer certain planned courses or must change the term in which they are offered due to student enrollment or staffing limitations. A course with low enrollment may be canceled at any time up to the third day of classes. Likewise, the school has the right to restrict enrollment in any course when sign-ups exceed the departmentally determined course capacity.
<table>
<thead>
<tr>
<th></th>
<th>4-year student</th>
<th>3-year student</th>
<th>2-year student</th>
<th>1-year student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trimester Credits</td>
<td>54</td>
<td>51</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>(including transfer credits)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art, Music, Theatre and Dance</td>
<td>1 art, 1 music, plus 2 more of art, music, and/or theatre and dance</td>
<td>1 art, 1 music, and 1 more art, music, or theatre and dance</td>
<td>1 art or music</td>
<td>None</td>
</tr>
<tr>
<td>English</td>
<td>English 100, 200, and 300</td>
<td>English 200 and 300</td>
<td>English 301, and 3 terms at 500-level</td>
<td>3 terms***</td>
</tr>
<tr>
<td>World Languages</td>
<td>1 year of 300-level through the regular or accelerated sequence OR 6 terms of less commonly taught plus 3 terms of other language OR 3 terms of less commonly taught plus 6 terms of other language.*</td>
<td>1 year of 300-level through the regular or accelerated sequence OR 6 terms of less commonly taught plus 3 terms of other language OR 3 terms of less commonly taught plus 6 terms of other language.*</td>
<td>1 year of 300-level or 1 term of 400-level or completion of 2 years of a new world language (following successful student petition)</td>
<td>If student does not have three years of language previously, 1 year</td>
</tr>
<tr>
<td>History and Social Science</td>
<td>History 100 in 9th grade, History 200 in 10th grade, and History 300 and 310</td>
<td>History 200 in 10th grade and History 300 and 310</td>
<td>History 300 and History 310**</td>
<td>If no prior credit for U.S., then 1 year: History 300 and 310, or, 320 plus term of 310 or higher</td>
</tr>
<tr>
<td>Lab Science</td>
<td>2 yearlong lab sciences</td>
<td>2 yearlong lab sciences</td>
<td>2 yearlong lab sciences</td>
<td>2 yearlong lab sciences</td>
</tr>
<tr>
<td>Math</td>
<td>Completion of Math 280 or 340</td>
<td>Completion of Math 280 or 340</td>
<td>Completion of Math 280 or 340</td>
<td>Completion of 500-level or higher course or Math 400</td>
</tr>
<tr>
<td>Philosophy and Religious Studies</td>
<td>1 term (10th grade unless granted an exception)</td>
<td>1 term</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Physical Education</td>
<td>1 term (9th or 10th grade)</td>
<td>1 term (10th grade)</td>
<td>Pass swim test</td>
<td>Pass swim test</td>
</tr>
<tr>
<td>PACE (Personal and Community Education) Seminar</td>
<td>Assigned (10th grade)</td>
<td>Assigned (10th grade)</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

*The other language may also be less commonly taught. Students must have the division chair's approval to pursue the 2 + 1 option.

**If given credit by the department chair for a U.S. history course taken previously, then three terms must be taken of other courses in the department.

***One-year international students must take one or two terms of English 499, and most PGs must take one term of English 495

Additional details about the manner in which these requirements are to be fulfilled can be found in the opening descriptions of the departments concerned.
In order to be eligible for a diploma, all students must satisfy the swimming requirement of the Department of Physical Education.

Certain diploma requirements vary with the class level at which the student enters Phillips Academy. Entering Juniors and Lowers must pass Physical Education 200 and a one-trimester course offered by the Department of Philosophy and Religious Studies, usually in the lower year. Some modifications of the language requirement are made for entering Uppers and Seniors. Entering Seniors with no previous world language experience must pass a year in a world language.

Students are subject to the following diploma requirements in the visual and performing arts:

- Entering Juniors must earn no fewer than four credits in art, music, and theatre and dance, combined, with at least one credit each in art and music. Students should have completed one credit in art and one credit in music by the end of the lower year.
- Entering Lowers must earn no fewer than three credits in art, music, and theatre and dance, with at least one credit each in art and music.
- Entering Uppers need pass only one trimester of either art or music at the Academy.

Trimester credits required for the diploma (including credits earned prior to enrolling at Andover) are:

- 54 for entering Juniors
- 51 for entering Lowers
- 48 for entering Uppers
- 48 for entering Seniors

During the upper and senior years, a student must accumulate a minimum of 27 trimester credits, with a minimum of 12 graded trimester credits during the senior year. Approved Independent Projects are counted as graded courses.

**Course Numbers**

The first digit corresponds to the “level” of the course:

- **Level 1** = 100; for courses that introduce a subject (SPAN-100) or that are typically taken by Juniors (BIOL-100, ENGL-100)
- **Level 2** = 200; for courses that are the second level in a sequence (SPAN-200) or courses that are typically taken by Lowers or Juniors (ART-225, HIST-200)
- **Level 3** = 300; for courses that are the third level in a sequence (SPAN-300), or for courses that are appropriate for Uppers (ENGL-300) or for Juniors, Lowers, and Uppers (PHRE-300, CHEM-300)
- **Level 4** = 400; for courses that are the fourth level in a sequence, or for courses that are appropriate for Uppers and Seniors (but do not qualify for the 500 of 600 designations)
- **Level 5** = 500; for courses equivalent to college freshman classes, sometimes, but not always, indicated by explicit preparation for an AP exam
- **Level 6** = 600; for courses that would typically be taken by majors in the subject in college, or for courses typically taken after the first year of college
- **Performance-based credit** = 900; for course credit associated with performance, such as music lessons or participation in music ensembles for credit. Numbers followed by “H” indicate higher level performance requirements, such as ensembles with competitive auditions.

The second and third digits (as in ART-225) reflect organizational schemes at the departmental level, and therefore will be used differently by different departments. Letters are also used for these purposes.

**Key to Course Designations**

Term designations are indicated in the course number by a “/” followed by a number from 0 to 5:

<table>
<thead>
<tr>
<th>Final Digit</th>
<th>Indicates</th>
</tr>
</thead>
<tbody>
<tr>
<td>/0</td>
<td>Yearlong course</td>
</tr>
<tr>
<td>/1</td>
<td>Course offered in fall trimester</td>
</tr>
<tr>
<td>/2</td>
<td>Course offered in winter trimester</td>
</tr>
<tr>
<td>/3</td>
<td>Course offered in spring trimester</td>
</tr>
<tr>
<td>/4</td>
<td>Two-term commitment in fall and winter</td>
</tr>
<tr>
<td>/5</td>
<td>Two-term commitment in winter and spring</td>
</tr>
</tbody>
</table>

A number with no term designation indicates a course that is term-contained but may be taken only once. The designations F, W, and S indicate the trimester during which the course is offered: F = Fall; W = Winter; S = Spring. Carefully check each course description for any other limitations: prerequisites, permission of the instructor or the department chair required, etc.
PLANNING A PROGRAM OF STUDY AT ANDOVER

The following is designed to help Andover students and their parents understand the curriculum and to show the major decisions (and their consequences) that face students at each stage of the four-year academic program.

At various stages of their four-year program, it may be advisable for students to take standardized tests such as the PSAT, SAT, ACT, and Advanced Placement (AP) Exams. Students should consult with their teachers, advisors, and with the College Counseling Office regarding the appropriate time to take these assessments.

The Main Choices at Each Stage of a Four-Year Program

While a student’s program of studies is adapted each year to his or her changing situation, the future consequences of each course should be noted, for certain choices in one year open the way to later options—and may close the door on others.

Junior Year

Each trimester a Junior may take five or six courses. All will take History 100 and English 100. In other subjects, students may have their placement adjusted as a result of the placement assessments or questionnaires sent to them in the spring.

In selecting courses, students are reminded to check the diploma requirements. A Junior’s program typically will resemble the following outline.

1. Mathematics enter the sequence by placement of the department
2. World Language enter the sequence by placement of the department, often at 100 level
3. English English 100
4. History History 100
5. Elective usually a yearlong science, with most students taking Biology 100 (students placing in Math 280 or higher may wish to consider other sciences)
6. Elective usually a term of art, music, theatre/dance, or physical education

Lower Year

Each trimester a Lower must take five courses. (Occasionally it is appropriate for a Lower to take six courses—see the *The Blue Book* for the policy on six-course loads.) New students may have their placement adjusted as a result of the placement assessments or questionnaires sent to them in the spring.

A student wishing to participate in an approved off-campus program during all or part of the lower, upper, or senior year should discuss these plans with the advisor and seek guidance for the selection of courses.

In selecting courses, students are reminded to check the diploma requirements. A Lower’s program typically will resemble the outline below.

New Students

1. Mathematics enter the sequence by placement of the department
2. World Language enter the sequence by placement of the department
3. English English 200
4. Science usually a yearlong science
5. *History 200, Physical Ed., Elective* The elective may be art, music, theatre/dance, philosophy and religious studies, or some other elective.

*A three-term sequence of these classes, in no set order*
Returning Students

1. Mathematics continue the sequence
2. World Language continue the sequence
3. English English 200
4. Science usually a yearlong science
5. *History 200, Phil/Rel Studies, and Physical Ed., if not yet completed unless petition for an alternate program has been granted, preferably at the end of junior year

*A three-term sequence of these classes, in no set order*

Upper Year

During the upper and senior years, a student must accumulate a minimum of 27 trimester units. Each trimester an Upper must take five courses. (Occasionally it is appropriate for an Upper to take six courses—see *The Blue Book* for the policy on six-course loads.)

New students may have their placement adjusted as a result of the placement assessment or questionnaire sent to them in the spring. As a matter of general policy, advisors encourage depth in the selection of courses for the upper year. In selecting courses, students are reminded to check the diploma requirements. An Upper’s program should resemble the outline below.

New Students

1. Mathematics enter the sequence by placement of the department
2. World Language enter the sequence by placement of the department
3. English Begin the sequence (English 301)
4. History Usually History 300/4, 310 (The United States), though this may be taken senior year
5. Science or other elective art, computer science, history, another mathematics, another language, music, philosophy and religious studies, psychology, or theatre/dance

Returning Students

1. Mathematics continue the sequence
2. World Language continue the sequence
3. English continue the sequence (English 300)
4. History Usually History 300/4 (though this may be taken senior year), History 310 (The United States)
5. Science or other elective art, computer science, history, another mathematics, another language, music, philosophy and religious studies, psychology, or theatre/dance
Senior Year

Seniors are expected to take five courses each trimester. (Occasionally it is appropriate for a Senior to take four or six courses; see *The Blue Book* for policies on four- and six-course loads.)

During the upper and senior years, a student must accumulate a minimum of 27 trimester units. A unit equals one course taken for one trimester. A Senior must earn a minimum of 12 graded trimester credits during the senior year. Seniors must have passing trimester grades for all courses taken during their spring trimester in order to graduate. In selecting courses, students are reminded to check the diploma requirements. New students, including international students, should pay particular attention to the introductory paragraphs for the English and history sections of this document. A Senior’s program should resemble the outline below.

**New Students**

1. Mathematics enter the sequence by placement of the department; if the requirement is not yet satisfied, enter *Mathematics 400*

2. World Language enter the sequence by placement of the department if the requirement is not yet satisfied

3. English as placed by the department

4. Elective *Art, computer science, another English or Humanities Writing Seminar (INTD-400/I) or history*

5. Elective Mathematics, a language, music, philosophy and religious studies, science, psychology, or theatre/dance

**Returning Students**

Usually most diploma requirements have been satisfied. Careful selection of electives for continued depth in the student’s chosen areas is encouraged. Two-year students must take English electives at the 500 level each term.
The visual arts program emphasizes artistic thinking and the development of creative ideas in relation to the techniques of a medium, history of visual ideas, and expressive potential of one's own experience and culture. Students have the opportunity to explore particular areas in depth on both the introductory and advanced levels.

Students who matriculated as Juniors and Lowers should take one of the Visual Studies Studios (ART-225A, B, or C) by the end of lower year, which qualifies them for any 300-level Introductory Concentration Course or a 400-level course upon permission of the department chair.

Students who matriculated as Juniors or Lowers who have not taken ART-225 by the end of lower year will take ART-350 during upper or senior year to fulfill their introductory art diploma requirement.

Entering Seniors have no diploma requirement in art. They may take any 300-level course, or a 400-level course upon permission of the department chair.

Students with a strong background in art may seek permission from the chair to enroll directly in a 300-level art course chosen in consultation with the chair. Exemptions will be granted on the basis of a student's previous coursework and a portfolio of work.

Entering students considering ART-500 (Advanced Studio Art) should check prerequisites or consult with the department chair to plan a program that includes sufficient breadth and preparation. Students interested in pursuing a particular media area should consider a 500-level course in that area or an independent project.

There will be a studio fee for each course, with the exception of ART-400. Additionally, students should expect to help pay for some art materials.

**Foundation Courses**

The ART-225 Visual Studies courses focus on artistic thinking, visual vocabulary, and the relationship of making and thinking. Why do humans create? And how? Projects, discussions, and visits to the Addison Gallery and Peabody Museum focus students on their own creative work and what they perceive in the world around them. Juniors and Lowers must take one ART-225 course (2-D, 3-D, or media).

**Visual Studies 2-D Studio**

**ART–225A**

(F-W-S)

Five class periods. For Juniors and Lowers. In this studio students use two-dimensional media (e.g., drawing, collage, painting, mixed media, artists’ books) and photography to expand their perceptual, conceptual, and technical skills, and develop the visual language needed to communicate their experiences and ideas.

**Visual Studies 3-D Studio**

**ART–225B**

(F-W-S)

Five class periods. For Juniors and Lowers. In this studio students use two and three-dimensional media (e.g., collage, drawing, photography, wire, clay, wax, paper, plaster) to expand their perceptual, conceptual, and technical skills. By expanding their visual literacy students are able to observe, critically and analytically, their surroundings and visual culture.

**Visual Studies Media Studio**

**ART–225C**

(F-W-S)

Five class periods. For Juniors and Lowers. In this studio students make photographs and short videos to focus on two central areas of media: photography and time-based images (film/video). Through projects, presentations, and discussions students explore how these media have changed the ways people perceive the world, and express their ideas and feelings.
Introductory Concentration Courses

Students who matriculated as Juniors or Lowers should complete a foundation course (ART-225) prior to enrolling in a 300-level course. Students who matriculated as Uppers should fulfill their diploma requirement in the visual and performing arts with ART-350, or they may enroll in a 300-level course upon permission of the department chair.

**Visual Culture: Discovering the Addison Collection**  
ART-300/3  
Four class periods. Throughout the term, students will view selections from the collection of the Addison Gallery as it relates to the history and context of American art. Each week various themes will be explored and diverse works from the collection will be viewed and discussed from a perceptual point of view. Students will meet the gallery staff and experience what makes a museum function. Readings, writing assignments, and research projects will help students engage, confront, and discuss a wide range of art forms and imagery. Issues surrounding the making and viewing of art will be explored. As a culminating project for the term students will curate an exhibition. (Ms. Crivelli and members of the Addison staff)

**Prerequisite:** Completion of ART-225 or -350, or permission of the department chair.

**Architecture I**  
ART–301  
(F-W-S)  
Four class periods. This course will introduce the basic principles of architectural design through a sequence of related projects in drawing, site analysis, and research into precedent, culminating in the design of a space or structure. The design projects throughout the three terms will address architectural design in different contexts—a natural setting (Fall), interface with an existing structure (Winter), and in an urban context (Spring), so that a student wishing to continue with architecture at the 401 level can work with a variety of design issues. With hands-on sketches, drawings, and models, students will explore the issues of a well-thought-out structure and learn to see the environment in terms of human scale, materials, and the organization of space. Class time will include discussions and demonstrations, as well as studio time. There will be a required evening lab. (Mr. Lawson)

**Prerequisite:** Completion of ART-225 or -350, or permission of the department chair.

**Clay and The Ancestral Pot**  
ART-302  
(W-S)  
Five class periods. This interdisciplinary class explores the exciting intersections between the disciplines of archaeology, geology, and studio art. In the studio classroom, students will explore the nature of clay, ceramic techniques, aesthetic considerations, and the role of clay in human evolution. The Peabody Museum of Archaeology's collection will offer historical context and a rich array of objects to frame class discussions and assignments. Do you want to dig your own clay? How about using satellite imagery and soil maps to help you find it? In the fall trimester, a field component will take students out into the environment to source and dig residual clays. Students will make their own ceramic artwork from locally sourced and refined clays. Fall term culminates with the pit firing of hand-made ceramics using traditional “primitive” methods. (Mr. Zaeder)

**Prerequisite:** Completion of ART-225 or -350, or permission of the department chair.

**Drawing I**  
ART–304  
(F-W-S)  
Four class periods. This course will provide students with a sequential exploration of drawing methods and concepts. Students learn through in-class exercises and formal assignments, skills, and concepts relating to contour, gesture, and full rendered drawings. Students will work with a variety of materials. Concepts include the depiction of three-dimensional form on a two-dimensional plane, use of light and dark contrast, and use of proportion and perspective sighting. Assignments are designed to develop the students’ skills in direct observation and to encourage creative, expressive thinking. Students will work with still life setups, the surrounding environment, and the figure. (Ms. Crivelli, Ms. Trespas)

**Prerequisite:** Completion of ART-225 or -350, or permission of the department chair.
Painting I
ART–305
(W-S)
Five class periods. This class is designed to introduce students to the basic elements of painting with water-mixable oils or acrylic paints. Specific problems are assigned to facilitate the study of fundamental paint handling, color mixing, and blending. Issues of form and space relationships, composition, and development of ideas are addressed in balance with the student's need for self-expression. Class critiques, slide talks, and visits to the Addison Gallery complement the actual painting process. (Ms. Trespas)

Prerequisite: Completion of ART-225 or -350, or permission of the department chair.

Film Photography
ART-306
(F-S)
Five class periods. This introductory black and white film course will examine traditional photographic image-making through presentations, demonstrations, and group critique. Beginning with basic camera manipulations and film processing, students will be encouraged to explore the magic of light-sensitive silver materials. Laboratory instruction in printing fine art images with variable contrast filters will be provided. Assignments and discussions of historical landscape, portrait, and/or still-life genres will further aid each student in understanding how a photographer carefully selects and represents his or her vision of the world. A supervised evening lab opportunity provides additional time for technical help and individual critique with the instructor. Cameras will be provided by the art department. (Ms. Harrigan)

Prerequisite: Completion of ART-225 or -350, or permission of the department chair.

Mixed Media Printmaking
ART-307
(W)
Five class periods. Students discover and develop personal imagery while learning several types of printmaking techniques, including relief, monoprint, drypoint, and collography. Images are constructed through collage, drawing, and painting on—and carving into—surfaces such as rubber, wood, metal, and plastic. These are inked, in most cases with water-based inks, and transferred to paper by hand or by means of a printing press. Often several impressions will be “pulled” from one printing plate and combined with another. A collaborative project, book arts, and digital printing methods also are explored. Emphasis is on gaining technical, conceptual, and formal skills while developing a student's ideas through various types of printing and mixed media combinations. Critiques, slide talks, and field trips to the Museum of Printing and the Addison Gallery of American Art contribute to students' understanding of the history, concepts, and processes behind printmaking. (Ms. Trespas)

Prerequisite: Completion of ART-225 or -350, or permission of the department chair.

Sculpture I: Clay, Plaster, Welded Wire, and Japanese Papermaking
ART-308
(W-S)
Five class periods. Sculpture has become an all-inclusive field, with contemporary sculptors working in a wide range of media and inspired by everything from technology, ecology, and the human psyche to literature, music, and the work of other artists. In this same spirit, students will explore a variety of sources, materials and, in some cases, found objects. Through the process of sculpting in clay and building with wire and delicate paper made from mulberry bark, students will develop technical and conceptual skills for working and thinking three-dimensionally. Projects will involve a creative investigation of the expressive potential of materials, structure, imagery, and context through a process of careful observation, experimentation, making, and reflecting. (Ms. Zemlin)

Prerequisite: Completion of ART-225 or -350, or permission of the department chair.

Video I
ART–309
(F-W-S)
Five class periods. This course focuses on storytelling in the time-based medium of video. Students learn to identify stories, develop their ideas using principles and techniques of time-based media, and shoot and edit their own productions. Class time will include viewing and discussing both professional and student work chosen to show ways one conveys ideas by means of images and sound. Following an initial project focused on camerawork and editing, there will be four assigned projects (nonfiction, fiction, experimental, and theme-based). Students interested in animation may use animation for these projects. Cameras, microphones, computer editing stations, and software will be provided by the Polk-Lillard Electronic Imaging
Center. A student wishing to take video for a full year should begin with ART-309 in the fall. Students with a background in video who think they may be prepared to go directly into ART-409 should consult with the instructor. (Ms. Zeltzman)

**Prerequisite:** Completion of ART-225 or -350, or permission of the department chair.

### Digital Photography I: The Landscape
**ART-310**  
(W-S)
Five class periods. This introductory digital photography course examines the concept of beauty in the environment and how we appreciate the poetic or contemplative experience of a photograph. The color theory of light, color management, using adjustment layers, and composite imagery with Adobe Photoshop tools will provide students with the solid knowledge base to produce an edited portfolio or visual book at term’s end. Cameras will be provided by the Polk-Lillard Center. (Ms. Harrigan)

**Prerequisite:** Completion of ART-225 or -350, or permission of the department chair.

### Weaving: When the Paleolithic Meets the Digital Age
**ART-314**  
(S)
Five class periods. This hands-on studio class will provide opportunities for students to investigate the rich technical, conceptual, and visual potential of weaving. Students will learn and experiment with weaving patterns and imagery on frame-looms and, using decommissioned climbing harnesses and carabiners, to make backstrap looms. Students also will design threading drafts (essentially simple coding) for card weaving projects. In addition, students will have the opportunity to work on larger floor looms. Shibori (Japanese tie-dye) and indigo dying will provide a break between weaving projects at the midpoint in the term.

Weaving is the oldest known technology and yet the earliest looms share many similarities with contemporary computer technology. The punch card system that was developed to control power looms was later adopted for computerized data processing in the 20th century. This historical context, along with issues of gender and culture, will inform our studio projects, and students will be challenged to draw their ideas and imagery from personal interests, contemporary fine art, crafts, and the textile collections at the Peabody Museum and Addison Gallery. (Ms. Zemlin)

**Prerequisite:** Completion of ART-225 or -350, or permission of the department chair.

### Documentary Video: Make Change!
**ART-319**  
(W-S)
Five class periods. What do you care about at PA and in the world? Food waste? Recycling? Diversity? Bullying? The environment? Politics? Surveillance? In this class, students will have the opportunity to develop their own language and visual articulation around the issues that matter most. With input and support from classmates and through a series of in-class exercises, writings, sound recordings, sketches, and 3D renderings, students will create, by the end of the term, compelling videos that express their concerns through moving images. Formats can range from stop motion to video collage and everything in between.

Location is an important element in reaching an audience and creating an experience for the viewer; students will explore presentations of video beyond the monitor, television, and cell phone. Finished projects will be screened on flat screen and projection installations around campus as well as through social media.

We will look at artists—from the birth of video art in the 1960s to the present—whose works convey their political and personal views through imagery, sound, and action, and who address these issues in unconventional formats. Take advantage of this opportunity to share your ideas and solutions. Get the word out! (Ms. Zeltzman)

**Prerequisite:** Completion of ART-225 or -350, or permission of the department chair.

### The Artist: Media and Meaning
**ART-350**  
(F-W-S)
Five class periods. For Uppers and Seniors. This course explores how artists develop images. While learning to think as artists, students will learn to develop ideas using visual language to communicate ideas. Student projects will focus on the expressive possibilities of image making with 2-D media, including the synergy between digital technologies and traditional hands-on applications of materials—digital photography, drawing, and collage. In class presentations and lectures, examples from art, film, and popular culture will provide context for discussions relevant to personal and cultural topics. (Ms. Crivelli, Ms. Zemlin)
Advanced Concentration Courses

*Histories of Art*

**ART-400/1**
**ART-400/2**
**ART-400/3**


Images constantly and incessantly bombard us, yet how do we process, deconstruct, and understand them? How do we place them in larger cultural, political, and social contexts? How do we wallow in beauty and magnificence? How do we discern a variety of meanings and best ensure we are not victims of ideology?

In this three-term multidisciplinary course, students explore images and objects as primary sources unveiling the values and ideas of the society in which they were produced, and they pay particular attention to the effects of class, economics, gender, national identity, politics, race, religion, sexual orientation, technology, and urbanism on art and visual culture. By focusing on both form and context, students foster a visual literacy that serves them well for a lifetime. Although the course focuses primarily on the traditional “fine” arts, students develop the skills and dispositions to navigate varied elements of contemporary visual culture, including Snapchats and amateur videos.

Throughout the year, students use local collections and exhibitions for the study of original works. Students enrolled in *ART-400* also are eligible to join an optional study trip to Europe during spring break.

**Fall term**—Beginning with art as mimesis—as representation of “reality”—in Greece, the term concludes with its further development during the Renaissance in Italy. Along the way, students encounter creators such as Praxitiles, Giotto, and Leonardo and explore many topics, including the development of organized labor, the economics of the Medici Bank, the evolution of the social status of some creators from craftsman to artist, the devastation of the Black Death, the gendering of different media (e.g., tapestries versus sculpture), and the power of monarchy and papacy.

**Winter term**—The term stretches from the Reformation through Impressionism, and students examine themes throughout, including the evolving tension over the obscuring of boundaries between the wonders of art and the wonders of nature; the gradual shift of sovereignty from pope and king to individual and from patron to artist; the development of photography; the prevalence of rape imagery; the changes in social regulation, spectacle, and exhibition; and the rise of “globalism” in London and Paris. Students study artists such as Caravaggio, Rembrandt, Bonheur, Courbet, and Monet.

**Spring term**—Covering the end of the 19th century to the present day, students this term encounter a range of artists, including Paul Cézanne, Pablo Picasso, Käthe Kollwitz, Jackson Pollock, Andy Warhol, Cindy Sherman, El Anatsui, and Banksy. Among other topics, students explore the fragmentation and disappearance of mimetic art, the global catastrophes of depression and war, the development of the cinema, the feminist art movement and the challenges of intersectionality, the solidification of art as commodity (i.e., the economics of the contemporary art market and the politics of museum display), and the post-modern dismantling of the Eurocentric tradition that permeates contemporary visual culture. (Mr. Fox)

**Prerequisite:** Open to Lowers, Uppers, and Seniors, who may take one, two, or three terms; completion of *ART-225* or -*350* is recommended but not required.

*Architecture II*

**ART–401/1**
**ART–401/2**
**ART–401/3**

Four class periods. *ART-401* is designed as a continuation of *ART-301* for students who wish to develop and further expand their ideas. The sequence of projects throughout the three terms is designed to allow a student to study a range of architectural issues (if they wish to take architecture more than one term) by addressing different contexts—a natural setting (fall term), interface with an existing structure (winter term), and in an urban context (spring term). After taking *ART-401* once, and in consultation with the instructor, students can develop a term project that includes research and analysis, as well as a developed design that they choose independent of the class assignment. In this course there also will be the possibility to develop a multidisciplinary project in coordination with work in another class. A student wishing to take architecture for a full year should begin with *ART-301* in the fall. A student earning an honors grade will be eligible to advance to *ART-501*. (Mr. Lawson)

**Prerequisite:** *ART-301* or permission of the department chair.
**Ceramics II**  
**ART–402/2**  
**ART–402/3**  
Four class periods. This course is designed for students who have completed *Clay and The Ancestral Pot (ART-302)* and wish to continue their study of ceramics. As an advanced course, students will be asked to expand on their existing knowledge of ceramics, strengthen their technical skills, and seek sophisticated solutions to given assignments. In addition to their own work in the studio, students can expect to pursue some research and inquiry into the work of contemporary ceramic artists. Outside reading and visits to the Peabody Museum of Archaeology also will be a part of the course. A student earning an honors grade will be eligible to advance to *ART-502*. (Mr. Zaeder)  
**Prerequisite:** *ART-302* or permission of the department chair.

**Drawing II**  
**ART-404**  
(W)  
Four class periods. This course will focus on thematic subjects and will function on a more advanced level than Drawing I, while continuing to stress the balance between perceptual skills, concept/compositional development, and technique development. Scale, proportion, spatial studies, the understanding of color, and the exploration of mixed media will be some of the areas covered. A student earning an honors grade will be eligible to advance to *ART-504*. (Ms. Crivelli)  
**Prerequisite:** *ART-304* or permission of the department chair.

**Painting II**  
**ART–405**  
(S)  
Five class periods. In advanced painting, students build on already-acquired technical experience from Painting I while developing their own image ideas. Through working from direct observation, technical processes, and conceptual approaches, students explore different ways of working with acrylics and water-mixable oils. We will investigate different approaches that generate ideas for paintings. Painting in series, mixing media, innovating paint application, and utilizing collage and assemblage further extend the possibilities for thinking about what a painting can be. Emphasis is placed on cultivating solid technical skills as well as inventive and challenging approaches to subjects that encourage individual artistic and personal growth. Critiques, Addison Gallery visits, and exploration of artists’ work and art historical issues relevant to the student’s paintings are important components of this course. A student earning an honors grade will be eligible to advance to *ART-505*. (Ms. Trespas)  
**Prerequisite:** *ART-305* or permission of the department chair.

**Special Topics in Photography:**  
**Images of Resistance and the Social Documentary Tradition**  
**ART-406**  
(F-S)  
Five class periods. This course is designed for students who have successfully completed an introductory film (darkroom) or digital photography course and wish to continue with a photographic project in the social documentary tradition. Photographs often serve as powerful historical records of struggle and social change. Class discussions and student presentations will consider how socially responsible photographers represent a collective vision of change and reconciliation. Students will receive editorial guidance on a self-motivated individual or small group documentary project to be presented as an edited portfolio or visual book at the end of the term. Coursework requires a working knowledge of either the Photography Darkroom Facility (in George Washington Hall) or the workflow of digital file management/processing/Photoshop adjustments. (Ms. Harrigan)  
**Prerequisite:** *ART-306* or -310, or permission of the department chair.

**Sculpture II**  
**ART–408/2**  
**ART–408/3**  
Four class periods. This class is an opportunity for students who have taken *ART-308* to continue their investigation of sculpture. Another set of technical skills will be taught, along with readings, slide talks, and visits to the Addison Gallery. In developing projects, students will be asked to focus on a particular
The concept, approach, or set of materials throughout the term. A student earning an honors grade will be eligible to advance to ART-508. (Ms. Zemlin)

Prerequisite: ART-308 or permission of the department chair.

Video II
ART–409/1
ART–409/2
ART–409/3
Four class periods. This course gives students with a background in video an opportunity to deepen their knowledge of areas introduced in ART-309 and/or pursue directions of their own choosing. Some students work on term-long projects, while others choose to pursue several short projects. All students decide on goals for the term and design a term plan to meet their goals. Class time will include viewing and discussing the work of others to inform one's own work. Students enrolled in this course should have previous camera and editing experience. For students unfamiliar with the editing software available to them on campus, this course will include classes dedicated to the editing software used in the Polk-Lillard Electronic Imaging Center. A student with an honors grade or with permission of the instructor will be eligible to advance to ART-509. (Ms. Zeltzman)

Prerequisite: ART-309 or permission of the department chair.

Photography II
ART-410
(W-S)
Five class periods. This course is designed for students who have successfully completed an introductory film (darkroom) or digital photography course and wish to continue with a photographic project in a genre of their choosing. The class will examine how people choose to represent self and other in studio and on location photography. Studio lighting will be demonstrated. Topics of discussion will range from portraiture to landscape and documentary photography. Students will receive editorial guidance on a photo book or portfolio to be presented at the term’s end. Coursework requires a working knowledge of either the Photography Darkroom Facility (in George Washington Hall) or working skills of digital file management/processing/Photoshop adjustments. (Ms. Harrigan)

Prerequisite: ART-306 or -310, or permission of the department chair.

Weaving II
ART–414
(S)
Four class periods. This class is an opportunity for students who have taken ART-314 to continue their investigations of weaving and textiles. Students will further explore the materials and techniques learned in ART-314 in long-term projects or in several shorter term projects, depending on individual interests. Projects should focus on craft and the development of imagery and design. All students will be asked to identify goals for the term and design a term plan. It is recommended that students consult with Ms. Zemlin before signing up for the course. (Ms. Zemlin)

Prerequisite: ART-314 or permission of the department chair.

Cultural Perspectives, Global Connections
ART-465
(W)
Four class periods. Open to Lowers, Uppers, and Seniors. This course will study the art and culture of three different countries: China, India, and South Africa. Focusing on the modern and contemporary, this course will travel back and forth in time while viewing a selection of artists and filmmakers from each country whose works are inspired by historic roots and cultural traditions or whose works deliberately address political unrest, human rights, or cultural change. Through viewing, reading, discussion, research, and writing, the class will examine questions such as: How do the objects and images viewed reflect history, identity, and change within each culture? How have historic art forms and cultural traditions transformed and inspired the vibrant and contemporary art perspectives of each country today? How have traditional art forms from China, India, and Africa influenced European and American artists, designers, and collectors over time? Instead of textbooks, an ebook will be used for reading, alongside other digital modes of research and access to information, films and images. (Ms. Crivelli)

Prerequisite: Completion of ART-225 or -350, or permission of the department chair.
The following courses are available to students who wish to pursue a particular studio discipline beyond the 400 level. Students who have completed one of the preceding 400-level course with an honors grade, or have been granted permission by the instructor and department chair are eligible to take the corresponding 500 level course.

### Advanced Studio Art

**ART—500/0**  
(A YEARLONG COMMITMENT)

Five class periods. **ART—500** is designed for Uppers and Seniors. The course provides students with the opportunity to broaden their art experience at an advanced level and also study in-depth in areas of their choosing. Students will be guided through the process of assembling portfolios for college applications or Advanced Placement (AP) portfolios. In the fall term, students study broadly at an advanced level using a range of media and techniques. In the winter term, students audit a 300/400-level course to focus on a specific medium, while also meeting weekly with the **ART—500** class for readings, discussions, Addison Gallery events, and field trips to art museums. In the spring term, students work on supervised independent projects that are either discipline-specific or cross-disciplinary in nature. As a culmination of the course, students organize, curate, and install an exhibition of their work in the Gelb Gallery. Attendance at a weekly evening lab is required. (Ms. Zemlin)

**Prerequisite:** Open to Uppers and Seniors; Diploma requirement in art and at least two additional 300- or 400-level studio art courses, or permission of the department chair.

### Architecture III

**ART-501/1**  
**ART-501/2**  
**ART-501/3**  
(Mr. Lawson)

### Ceramics III

**ART-502/2**  
**ART-502/3**  
(Mr. Zaeder)

### Drawing III

**ART-504**  
(W)  
(Ms. Crivelli)

Requires permission of the instructor

### Painting III

**ART-505**  
(S)  
(Ms. Trespas)

### Photography III: Special Topics

**ART-506**  
(F-S)  
(Ms. Harrigan)

### Video III

**ART-509/1**  
**ART-509/2**  
**ART-509/3**  
Four class periods. **ART-509** gives advanced students the opportunity to pursue a direction of their own choosing (e.g., several short projects or a term-long project, projects focused on a specific subject or genre, animation, etc.) that meets their goals as filmmakers. As part of their work, students design their own production schedule for the term. In addition, all students are required—on their own—to view work by other filmmakers, write a short paper explaining what may or may not have influenced their own work,
and show examples of this work to the class. At the end of the term students also write an artist’s statement about their work and evaluate their work, which includes suggesting a grade for the term. Students who wish to explore lighting or use a DSLR camera have access to both in this course. A student with an honors grade or with permission of the instructor will be eligible to advance to ART-609. (Ms. Zeltzman)

Prerequisite: ART-409 or permission of the department chair.

**Photography III: Self and Other**

ART-510
(W-S)
(Ms. Harrigan)

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### 600-Level Studio Courses

These courses give students who have completed the 500-level of the course with an honors grade the opportunity to enroll for further advanced study in that area. Students enrolling in 600-level courses must have permission of the instructor who will oversee the advanced work and permission of the department chair.

- **Architecture IV**
  - ART-601/1
  - ART-601/2
  - ART-601/3
  (Mr. Lawson)

- **Ceramics IV**
  - ART-602/2
  - ART-602/3
  This advanced course is open to students upon completion of ART-502 with an honors grade, or by permission of the instructor and department chair. Note that 600-level courses may be taken more than once.
  (Mr. Zaeder)

- **Video IV**
  - ART-609/1
  - ART-609/2
  - ART-609/3
  Four class periods. Students who wish to explore lighting or use a DSLR camera have access to both in this course. ART-609 may be taken more than once.
  (Ms. Veenema)

Prerequisite: Honors grade in ART-509 or permission of the department chair.

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### Elective Courses Recently Taught, but Not Offered in 2015–2016

- **Visual Culture: Images and Ideas**
  - ART-300/2

- **Computer Media I**
  - ART–303

- **Computer Media II**
  - ART–403

- **The Quest for Identity: Explorations in Film and Mixed Media**
  - ART–420

- **Sculpture III**
  - ART-508/3
The diploma requirements in English are intended to establish competence in writing and reading. All Juniors take ENGL-100, followed by a year of ENGL-200 and then a year of ENGL-300. Juniors may not take ENGL-200. For new Lowers, this requirement is fulfilled by successful completion of ENGL-200 and ENGL-300. New Uppers fulfill their requirement by successful completion of ENGL-301 and three terms of English electives. International students who are new Uppers usually begin the sequence with ENGL-301. One-year American students and some one-year international students will begin with ENGL-495 for one term, followed by electives in the winter and spring terms; these international students must be placed by the chair of the department. The remainder of the one-year international students begin with ENGL-499/1,2, followed by an elective in the spring term. Seniors who are returning international students continue the sequence or select in accordance with placement by the department. Related courses, whose prerequisites vary, are listed elsewhere in this booklet.

**Required Courses**

**An Introduction**

**ENGL-100/0**

(A YEARLONG COMMITMENT)

ENGL-100 provides an introduction to the study of language and literature at Andover. In this junior course, which cultivates the same skills and effects pursued throughout the English curriculum, students begin to understand the rich relationships among reading, thinking, and writing.

ENGL-100 assents to Helen Vendler's notion that "every good writer was a good reader first." Accordingly, ENGL-100 students work to develop their ability to read closely, actively, and imaginatively. They study not only what a text means but also how it produces meaning. They seek to make connections as they read—perhaps at first only connections between themselves and the text, but eventually connections within the text and between texts as well. All the while, however, ENGL-100 students revel in the beauty, humor, and wisdom of the literature. Over the three trimesters, ENGL-100 students read literature of various genres and periods. For their syllabi, teachers turn to a great many authors.

ENGL-100 students practice several types of writing, primarily in response to what they read. They write at times in narrative, expressive, and creative modes, but their efforts focus more and more on critical analysis. They learn to conceive of writing as a craft to be practiced and as a process to be followed. Through frequent assignments, both formal and informal, ENGL-100 students come to value writing as a means of making sense of what they read and think. Attending carefully to their writing at the levels of the sentence, paragraph, and full essay, they learn to appreciate the power of the written critical argument. Although their work is substantially assessed throughout the year, ENGL-100 students do not receive grades during the fall trimester. At the end of the term, their report cards will indicate "Pass" or "Fail."

Lively, purposeful class discussions reinforce the lessons of reading and writing and often leave students with especially fond memories of their ENGL-100 experience. The course prepares our youngest students well for the further challenges of their education at Andover.

**Writing to Read, Reading to Write**

**ENGL-200/0**

(A YEARLONG COMMITMENT)

**Fall term**—During the fall term of ENGL-200, classes focus on the writing process. Students are exposed to a variety of rhetorical modes, such as narration, description, analysis, comparison/contrast, cause/effect, definition, example/illustration, process, and argument. By the end of the term, students should be able to organize, develop, and write cogent essays in five or six of these modes. Teachers integrate a variety of reading assignments into their lessons on the writing process. During the fall term, classes also work deliberately on vocabulary development, clarity, grammar, mechanics, and punctuation.

**Winter term**—In the winter term, the focus shifts to reading and writing about poetry. While the course introduces literary terms and strategies for understanding poetry, the literature serves primarily as an opportunity for the students to work on writing skills, drawing on the lessons of the fall term and reinforcing argument and persuasion as patterns of thought that can guide the writer logically through a discussion of a poem.

**Spring term**—In the spring term, the focus shifts again to reading and writing about fiction, including the novel. Students continue to write in the modes introduced in the fall term and focus on organizing the essay. The spring term includes a project involving one of the texts and a research paper, class presentation, or performance.
The Stories of Literature
ENGL-300/0
(A YEARLONG COMMITMENT)
Literature tells the stories of people's experiences—their dreams, their desires, their acts, their mistakes. ENGL-300 students read poems, plays, short stories, and novels representing diverse historical periods, locations, and identities. In their writing, students practice formal literary analysis in order to gain greater appreciation for the artistic construction of a text and its cultural resonance.

The Stories of Literature for New Uppers
ENGL-301/0
(A YEARLONG COMMITMENT)
Tailored to the particular needs of new Uppers, ENGL-301 conforms in spirit and essence to ENGL-300, but with more intensive attention to expository writing.

Strangers in a Strange Land
ENGL-495
This course for one-year students explores how strangers adapt to new places and new modes of being. Does one reinvent oneself, conquer the new, or seamlessly assimilate? Works to be considered might include Mary Shelley's *Frankenstein*, Shakespeare's *The Tempest*, Graham Greene's *Our Man in Havana*, and poetry by Yosef Komunyakaa, Elizabeth Bishop, and Carolyn Forché. The emphasis will be on close reading and textual analysis.

American Studies for International Students
ENGL-499/1
ENGL-499/2
Designed for one-year students from abroad, this course provides intensive training in reading, literary fundamentals, and qualitative writing. The focus of this course is on American culture, values, and traditions as reflected in literature and other media. One or two terms of this course will provide students with the reading and writing skills required for success in senior electives. (Dr. Vidal)

Humanities Writing Seminar
INTD-400/1
This course focuses on essay writing of all kinds and in all disciplines, including personal essay, critical essay, persuasive essay, literary critique, narrative, historical essay, etc. Students will work in groups to critique each other's work as well as work closely with the instructors on composing, editing, and revising. Use of the Academy's Writing Center will be a vital part of the class. Course content will include exploring and responding to the intellectual and cultural resources of the campus. This course is open only to one-year Seniors and may not be taken as part of a four-course schedule.

Note: This interdisciplinary course offers an additional opportunity for one-year Seniors to develop writing skills.

Elective Courses
The course offerings in English culminate in a rich variety of advanced 500-level electives. They are open to students who have successfully completed ENGL-300, -301, -495, or -499, as well as to select Uppers who, with the permission of the department chair, may enroll in an elective concurrently with the winter and/or spring term of ENGL-300, -301, when space permits.

Writing Courses
Creative Nonfiction
ENGL-501AA/2
ENGL-501AA/3
Contemporary nonfiction author Terry Tempest Williams once said, “I write to discover. I write to uncover.” In this course we will consider the ways that creative nonfiction bridges the gaps between discovering and uncovering, between looking forward and looking back, between imagination and fact, and between invention and memory. This workshop-centered writing course is open to all students seeking to
improve their craft and interested in the boundaries and possibilities that creative nonfiction, as an increasingly dynamic genre, aims to explore.

Students will develop their talents in the art of essay writing by working in a number of rhetorical modes, including the personal essay, the analytical essay, the lyric essay, the review, the profile, and the memoir. Readings will include selected models from an anthology of contemporary work. (Mrs. McQuade)

### Writing and Teaching to Change the World (formerly Writing Through the Universe of Discourse)

**ENGL-501AB**  
(F-W-S)

This is a service-learning course in which students discover and/or develop the writers within themselves and then are trained as Andover Bread Loaf Writing Leaders. (Andover Bread Loaf is a Phillips Academy outreach program.) As such, they acquire the capacity to assist teachers in organizing writing programs and to organize programs of their own. Through in-class workshops, students experiment in many different genres of writing in a supportive, creative learning community. These workshops also provide students with methods they can use in working with other K–12 youth.

Readings include poetry and prose texts as well as books about educational theory and practice, such as *Multiplication is for White People* by Lisa Delpit and *Pedagogy of the Oppressed* by Paulo Freire. The service-learning component of the class consists of working in nearby Lawrence, Mass., public school classrooms during the period ENGL-501AB meets. This course is a collaboration among PA's English department and Community Service program, Lawrence Public Schools, and Lawrence community organizations. Students are invited to join the Andover Bread Loaf Teacher Network and participate in the conferences, workshops, and events the network offers throughout the year. (Ms. Cueto-Potts and Mr. Bernieri)

### Creative Writing: Poetry

**ENGL-505AA**  
(F-W-S)

This course is for students committed to reading and writing poetry. Students will be asked to write about poetry in addition to composing their own poetry. Although students are not expected to submit portfolios or samples of their work to qualify for this class, they must be serious about writing poetry. Previous experience helps, but it is not necessary. (Mr. Yoon)

### Creative Writing: Fiction

**ENGL-505AB**  
(F-W-S)

This course is for students committed to reading and writing short fiction. Students will be asked to write about short fiction in addition to composing their own short fiction. Although students are not expected to submit portfolios or samples of their work to qualify for this class, they must be serious about writing fiction. Previous experience helps, but it is not necessary. (Mr. Yoon)

### Play Writing

**ENGL-507AA**  
(S)

Each student is expected to write at least one one-act play in addition to certain exercises in monologue, dialogue, and scene-setting. The class reads aloud from students’ works in progress, while studying the formal elements in plays by important playwrights and reading selected literary criticism focused on drama. (Mr. Heelan)

### Gothic Literature: Living in The Tomb

**ENGL-510AA**  
(F)

This course traces trends in Gothic forms, from their origins in the damp and dark castles of Europe to the aridity of the contemporary American landscape. Students will identify gothic conventions and themes such as the haunted house, family dynamics, apparitions, entrapment, secrecy, and the sublime. They also will read novels, short stories, and poetry spanning roughly 200 years in order to explore questions about the supernatural, the psychology of horror and terror, the significance of fantasy and fear, the desire for moral closure, and the roles of gender, race, class, and sexuality. Probable selections include *The Castle of Otranto*, by Horace Walpole; *Faustus*, by Christopher Marlowe; *Rebecca*, by Daphne du Maurier;
 foil to him. The white air that he breathed was fierce with a vengeful.
### Journalism
**ENGL-514AA/1**

This course on print journalism recognizes the challenges all journalists face in their efforts to be fair and also accurate as they struggle to gather information and churn out lively copy under deadline pressure. The course is designed to teach essential journalistic judgment, skills for gathering and verifying news, and interviewing and writing techniques. Students will receive weekly assignments on deadline for news articles, feature stories, and opinion pieces, and will supplement this skills work with readings on the First Amendment, media ethics, and the law. We also will discuss the current radical transformation of newspapers in the digital age. Texts for the course are *Journalism 101*, by Nina Scott, and excerpts from *The Elements of Journalism*, by Bill Kovach and Tom Rosenstiel, as well as daily newspapers. Films will include *Abuse of Malice, All the President's Men, The Year of Living Dangerously*, and *Welcome to Sarajevo*. (Ms. Scott)

### The Graphic Novel
**ENGL-515GR**

This course will introduce students to poets and movements that have shaped the direction and contours of American poetry since World War II. Students first study the Beat Movement and then explore the so-called “schools” of poetry—Black Mountain, New York, Confessional, et al. The course finishes with an exposure to poetry that is happening right now, which includes bicultural and multicultural poets. Most class time will be spent deriving themes through discussions of poets, poems, poetic movements, criticism, and theory. Poets include Ginsberg, Corso, Kerouac, Dylan, Waldman, Bukowski, Creeley, Olson, Levertov, Ashbury, O’Hara, Lowell, Plath, Berryman, Bishop, Rich, Dove, Hass, Kinnell, Hogan, Nye, Springsteen, and Colvin. (Mr. Tortorella)

### Contemporary American Poetry
**ENGL-516AA/3**

“The graphic novel is an extended comic book with similar subject matter to, and the sophistication of, traditional novels. By its very nature, it challenges our assumptions of what a narrative and novel can be. For those tied to words, the comic offers a challenging visual text that forces us to read in new and surprising ways, and much of this course will be about reframing our visual and narrative habits and expectations. While the graphic novel is increasingly mainstream, it often has offered voices from the margins about the margins. Its subject has been everything from the coming-of-age novel to historical memoir to cross-cultural conflict to the darker side of the superhero. We will read a variety of texts with the rigor accorded to more traditional texts while also stretching ourselves to understand the aesthetic visual choices the artist makes. By the end of the term, we will even attempt our own small comics. Texts may include: Alan Moore’s *Watchmen*, Chris Ware’s *Jimmy: The Smartest Kid on Earth*, Marjane Satrapi’s *The Complete Persepolis*, Art Spiegelman’s *The Complete Maus*, Frank Miller’s *Batman: The Dark Knight Returns*, and others. (Ms. Curci)
which the playwrights are dealing and the cultures from which their work is erupting. Approaching the plays through historical, cultural and political contexts, students will analyze how the best playwrights pose and dramatize important questions of the time, while revolutionizing conventional dramatic practice through the developments in Naturalism, Realism, and Symbolism (and various combinations of these).

Winter term—European Drama. Playwrights studied may include Ibsen, Chekhov, Strindberg, Brecht, Pinter, Stoppard, Pirandello, Beckett, and Shaw.

Spring term—American Drama. Playwrights studied may include O’Neill, Miller, Wilson, Albee, Norman, Wasserstein, Shepard, Kushner, Parks, Hwang, and Mamet. (Ms. Chase)

### Special Topics Courses

#### Gender Roles in Contemporary World Fiction
**ENGL-520AA**

(W)

Love, family, and passion have always been popular literary themes in a variety of cultures. However, there are different ways in which each culture approaches these subjects, especially as they relate to gender roles and the relationships between men and women (as well as men and men and women and women).

In this course, we will go on a “trip around the world,” examining gender in a variety of contemporary cultural settings and comparing the fictional works that we will study to what we experience on a daily basis in American society. From traditional romantic obsession and rigid sex roles to challenges of these traditional roles and expectations, our texts will provide a variety of issues and perspectives to frame our discussions.

Readings include Machado de Assis, *Dom Casmurro* (Brazil); Rifaat, *A Distant View of a Minaret* (Egypt); Puig, *Kiss of the Spider Woman* (Argentina); Dangarembga, *Nervous Conditions* (Zimbabwe); Ensler, * Necessary Targets* (Bosnia). Films include *The Crying Game*, *Thelma & Louise*, *The Adventures of Priscilla: Queen of the Desert*, *Strangers in Good Company*, *Angels in America*, and excerpts from episodes of *Sex and the City*. (Dr. Vidal)

#### Children in Literature: Growing Up in a Changing World
**ENGL-520AB**

(F)

What does it mean to be a child? What defines a “good” or “bad” kid? Is there a certain age or type of behavior that separates children from adults? When and how do we “grow up?” Are our expectations for boys and girls different? Should they be? This course will explore how our conceptualization of childhood has changed over time by looking at a variety of sources: philosophical and psychological texts about children and representations of children in literature and film for adults, as well as some works aimed at young readers.

We will focus on the emergence of self within contexts of family and community, exploring the processes of identity formation in both Western and non-Western narratives. We will pay particular attention to an analysis of gender roles and of education within these stories, pondering the ways in which different societies and their values become perpetuated through their fictional children. Readings include Alcott, *Little Women*; Twain, *The Adventures of Tom Sawyer*; Barrie, *Peter Pan*; Golding, *Lord of the Flies*; as well as theory by Ariès, Locke, Rousseau, Freud, and Bettelheim. Films include *Central Station* and *Finding Nemo*. (Dr. Vidal)

#### Modern American Literature—Rosebud: The Restless Search for an American Identity
**ENGL-523AA**

(F)

Many of our enduring American works of literature and film, such as *The Great Gatsby*, *The Catcher in the Rye*, and *Citizen Kane*, center on the search for self. Through discussions on class, race, and gender, this course will present a series of American portraits while examining our changing society. Students will write personal narratives, as well as critical essays. Possible texts: *Continental Drift*, Banks; *The Awakening*, Chopin; *Fences*, Wilson; *Six Degrees of Separation*, Guare. Possible films: *Citizen Kane*, *Far From Heaven*, *Tully*, *Transamerica*, *Hustle & Flow*. (Mr. Bardo)

#### Welcome to the Apocalypse
**ENGL-523AB**

(W)

Many of our finest contemporary writers such as Cormac McCarthy, Margaret Atwood, and Chang Rae Lee have written novels centered on dystopias. This senior seminar will be devoted to some of these works.
as well as to viewing weekly films that offer a dark representation of the future or a searing portrait of a contemporary society plunging toward the apocalypse. Possible films: *The Wave*, *Incendies*, *Even the Rain*, *A Clockwork Orange*, *Children of Men*, *In a Better World*, and *Johnny Mad Dog*. Possible written works: *Waiting for the Barbarians* (Coetzee), *The Road* (McCarthy), *GraceLand* (Abani), *Blindness* (Saramago), *Ruined* (Nottage), and *Continental Drift* (Banks). (Mr. Bardo)

**African Identities in American Literature**

**ENGL-523BB/1**

**ENGL-523BB/2**

The course will engage students in exploring African identities in American literature, and vice versa. Through the study of select texts, students will examine the portrayal of these identities and how they are perceived in the media—both African and American. Classes will be discussion-oriented; based on the Socratic and other models that foreground total student engagement. Weekly blog postings and bi-weekly oral presentations will punctuate regular essay assignments. The texts will include: **AMERICAN:** *Dreams from My Father*, by Barack Obama, *A Raisin in the Sun*, by Lorraine Hansberry, and *The House at Sugar Beach*, by Helene Cooper; **AFRICAN:** *A Man of the People*, by Chinua Achebe, *The Dilemma of a Ghost*, by Ama Ata Aidoo, and *The Thing Around Your Neck*, by Chimamanda Ngozi Adichie; **FILMS:** *Coming to America*, *Blood Diamond*, *Invictus*, *Cry Freetown*, *The Constant Gardner*, *Hotel Rwanda*, and *Sarafina*. (Mr. Nyamwaya)

**Rememories: Trauma and Survival in 20th-Century Literature**

**ENGL-524AA**

(F)

In her novel *Beloved*, Toni Morrison coins the term “rememory” to describe a type of memory that won’t stay buried—ghosts of experiences that resurface across years, decades, even centuries, memories of trauma that continue to haunt literature to this day. This course will examine how narratives of trauma and survival have been represented (and re-presented) in 20th- and 21st-century literature. In our investigation of literature about war, terrorism, diaspora, and other cultural traumas, we will encounter authors writing from a variety of historical moments and perspectives. We will look closely at how trauma literature both delineates and breaks down divisions within individual, societal, and generational trauma experience. And we will engage with the course texts by writing in a number of modes, both critical and creative. Thematic focuses will include the problematics of truth and testimony; the dismantling of traditional narrative structures and genres; individual vs. collective memory; societal regeneration; and the ways trauma literature engages with issues of race, class, gender, and national identity. (Ms. McQuade)

**“Passing” in Literature and Film**

**ENGL-524AB**

(F)

What does it mean to “pass” in a certain community? What are the connotations? What are the forces that cause an individual to attempt to pass? Is it always a conscious decision? What does a person gain and what does she or he give up in the process of passing? This course explores the role of “passing”—when a person assumes another racial, ethnic, gender, sex, or class—in various texts and contexts. In doing so, students will consider how identity is categorized, revealed, and concealed. This course asks students to think critically about how we define identity and consider the roles agency and privilege play in the process of “passing.” Texts may include: *The House Behind the Cedars*; *Passing and Quicksand*; *Caucasia*; *Old School*; *The Human Stain*; Films may include: *Imitation of Life*, *Boys Don’t Cry*, *Victor Victoria*. (Dr. Long)

**Medieval Literature**

**ENGL-524BB/1**

**ENGL-524BB/2**

**ENGL-524BB/3**

What are the origins of English literature? What did it sound like and look like? What were its influences, interests, and anxieties? How national was it? How English? This course traces through time, form, language, and place several important developments in medieval literature and, in particular, medieval English literature. Not only will we explore chronological shifts in language and cultures, but we also will begin to understand the separations and overlaps in medieval literary genres by reading romances, saints’ lives, dream visions, sagas, allegories, mystical guides, confession manuals, travelogues, debates, and complaints. Through our readings, writings, and discussions, we may consider the edges of selfhood, the appeals of desire, the powers of sanctity, the scope of the imagination, the growing pains of metamorphosis, the fertility of grief, the pressures of politics, the multiplicities of gender, the hazards of pilgrimage, and the diversity of the Middle Ages.
Fall term will focus on the medieval romance tradition, exploring the beginnings of King Arthur’s story as well as the lasting influence of this network of stories over centuries. Authors will include Chretien de Troyes, Bede, Geoffrey of Monmouth, Marie de France, and the Silence-poet.

Winter term will veer into “other genres” and will examine expressions of medieval subjectivity in dream visions, hagiography, and confessions. Authors will include Teresa of Avila, Jacobus de Voragine, Margery Kempe, Augustine, Guibert de Nogent, and John Gower.

Spring term will concentrate on Geoffrey Chaucer’s vibrant, bawdy, edgy, reflective, unsettling, funny, and fierce poetry. Works may include Canterbury Tales (selections), House of Fame, and Legend of Good Women.

In the winter and spring we will read several texts in Middle English without translation, which will prove a surprisingly pleasant and entirely doable adventure. Class time will be devoted, however, to learning to read and understand these Middle English narratives. (Dr. Har)

Feasts and Fools: Revelers and Puritans in Literature and Life
ENGL-525AA/1
ENGL-525AA/2
ENGL-525AA/3
This course explores what Jean Toomer called “the good-time spirit” and its opposite, as manifest in major literature, including drama and film. We examine and make use of the literary critical distinction between ingenuousness, innocence, aureation, and richness on the one hand and sophistication, irony, exposure, and disillusionment on the other (in the words of C.S. Lewis, “golden” vs. “drab”). Correlations proliferate from this basic one: cavalier/puritan, rhapsodic/satirical, innocent/experienced, carpe diem/dulce et decorum est, hedonist/stoic, romantic/neoclassical, Dionysian/Apollonian. Along with critical writing on literature, the students occupy themselves with parties and festivities in their own lives, as well as in other cultures, with the impulse to trust one’s appetites, and with the meeting place of that impulse and the cultural practices that define sumptuary limits. Personal essays may lead to anthropological, architectural, performative, and semiological research projects, creative writing, and reports. Texts vary but have included Mrs. Dalloway, Sir Gawain and the Green Knight, Love in the Time of Cholera, A Year in Provence, The Debt to Pleasure, The Garden of Last Days, Saturday, The Short Stories of John Cheever, Cannery Row, House of Sand and Fog, The Custom of the Country, and Dancing in the Streets. Films have included Babette's Feast, Sense and Sensibility, and Chocolat. (Dr. Wilkin)

Dictatorship and the Artist
ENGL-529AA
(W)
In his novel The Brief Wondrous Life of Oscar Wao, Junot Díaz cites Salman Rushdie’s claim that “tyrants and scribblers are natural antagonists” while the narrator of the novel posits that dictators and writers are just competition for each other: “Like, after all, recognizes like.” This course explores the overlaps and tensions between dictators and artists. While writers will serve as the focus of the class, we will look at the way other artists in other media have transgressed, adapted to, subverted, or even collaborated with repressive states. While Central and South America serve as a starting point for the course, artists from around the world will be included. (Ms. Curci)

What Is Critique?
ENGL-530AA
(F)
This interdisciplinary course is a survey of questions and ideas about art, literature, and society, their natures, their functions, their meanings, and their values. What about a work makes it look like it looks or read like it reads? What gives a work meaning, and how does it do so? What makes a work good, and how do we justify it as such? What are the consequences of judging some works good and others not, of inclusion and exclusion? Who gets to judge—historically, white men—and how do those judgments establish and reflect the norms and values of societies as a whole? How might we understand and assess “critique” itself as form of empowerment against injustice, as, in Michel Foucault’s estimation, an “instrument for those who fight, resist, and who no longer want what is”? In this seminar, we will read challenging theorists—Walter Benjamin, Judith Butler, Hans-Georg Gadamer, bell hooks, Immanuel Kant, Karl Marx, Linda Nochlin, and Edward Said, among others—and we will apply their thinking to works by artists and writers such as Judy Baca, Banksy, Kate Chopin, Marcel Duchamp, F. Scott Fitzgerald, James Joyce, Nella Larsen, and Robert Rauschenberg. (Mr. Fox)
Brazilian Cultural Studies
ENGL-530AB or MUSC-530
(S)
One credit assigned in either English or Music. Four class periods. Brazil is one of the largest countries in the world, with a diverse population, geography, and cultural makeup. Besides being one of the important BRICS countries, the winner of five soccer World Cups, and the home of the famous Girl from Ipanema, it is also an illustration of how the whole can be greater than the sum of its parts. Its combination of African, European, and native cultures has produced some of the most interesting examples of literature and music in the world. In this course, 19th- and 20th-century Brazil will be studied through the lens of literature, film, art, and music being created at those times. Of special interest will be the literary works of Machado de Assis, Jorge Amado, Clarice Lispector, Carlos Drummond de Andrade, and the participants in the 1922 Week of Modern Art movement, as well as the musical traditions of Europe and Africa that merged in Brazil, producing genres such as chorinho, samba, bossa nova, and tropicalismo. Students in this course will also partner with students from Escola SESC, a Brazilian boarding school in Rio de Janeiro, who will visit Andover for one week during the term. (Dr. Vidal and Mr. Cirelli)

Prerequisite: Successful completion of a music course at the 200 level or above or permission of the Music Department chair.

Relativity, Incompleteness, Subjectivity
ENGL-530CQ
(F)
In a 1923 letter, the German critic and philosopher Walter Benjamin wrote, “All human knowledge takes the form of interpretation,” and with that sentence he captured the epoch: the collapse of Objectivity. In this colloquium, we will investigate the collapse of Objectivity: its origins, its manifestations, its consequences. We will begin with an examination of several early 20th-century discoveries that are understood, and perhaps misunderstood, as dismantling the much-vaunted Objectivity of mathematics and the sciences, including Einstein’s Theories of Special and General Relativity, Gödel’s Incompleteness Theorems, and various developments in quantum mechanics. We will then explore not only how “relativity,” “incompleteness,” and “subjectivity” reflect readings of historical events—the First World War, for example—but also how they reflect cultural and philosophical trends across the arts and humanities.

Following the model of previous colloquia—Bob Dylan, London, Darwin—a different member of the faculty will lead each class meeting. In addition to focusing on the discoveries of Einstein, Gödel, and others, we will likely explore the rise of positivism; the use and misuse of objectivity in understanding history and law; and the role of authority and the seeming-objective in perpetuating classism, racism, and sexism. We will engage with works in a variety of fields, such as art (Dalí, Duchamp, Kollwitz, Magritte), film (Buñuel, Kurosawa, Lang, Welles), literature (Camus, Faulkner, Tolkien, Woolf), and philosophy (Heidegger, Nietzsche, Nussbaum, Sartre).

The colloquium will meet Mondays (4:55–6:25 p.m.) and Wednesdays (6:45–8:15 p.m.), including, perhaps, days on which classes are not otherwise held. (Mr. Fox, coordinating with instructors from the art, biology, English, history, math, philosophy and religious studies, and physics departments.)

Yoga: Poetry and Practice
ENGL-534YO
(S)
This is an interdisciplinary course in English and athletics. Students must enroll in yoga as their LIFE sport alongside this English elective. The yoga class will meet four times per week for 75 minutes, immediately following the literature seminar. The course is open to experienced yoga students and serious beginners. We will study the philosophy of yoga in traditional texts such as The Yoga Sutras of Patanjali and the Bhagavad Gita, and then trace the path of those ideas through a wide variety of poets across time and continents. Students will write every week. The asana practice will explore ways the language of yoga can be learned in and through the body, developing strength, flexibility, balance, observation, detachment, and the acceptance of change. (Ms. Tousignant)

August Wilson’s View of 1900–1940s: His Pittsburgh, Our America
ENGL-539AW/1 or THDA-539/1
One credit assigned in either Theatre or English. This course will use August Wilson’s plays to investigate how our society’s view of race changed over the 20th century. Students will move through Wilson’s plays in chronological order, exploring their characters and themes in both a literary and theatrical sense. None of the ten plays, in the America Cycle, are set in the same neighborhood in Pittsburgh. The fall term section will give students an understanding of August Wilson’s fictionalized Pittsburgh, a glimpse into a more historically accurate Pittsburgh and the man as playwright. Students will look for connections between Pittsburgh and other American urban environments; examining how cities have changed during the first
August Wilson’s View of the Second Half of the 20th Century
ENGL-539AW/2 or THDA-539/2

One credit assigned in either Theatre or English. Like the fall term section, this course will use August Wilson’s plays to investigate how our society’s view of race changed over the 20th century. We will explore the plays that make-up last six decades of the 20th century. This will allow students who took the previous term to build off previous work, while introducing new students to a great playwright. All students will gain a unique perspective of America and theatre in America. This course is for Seniors; Uppers may take it with permission from department chair. (Mr. Grimm)

James Joyce
ENGL-535AA/2
ENGL-535AA/3

Five class periods. The first term is devoted to Dubliners and A Portrait of the Artist; the second term to Ulysses. The purposes of the course are to develop the skill to read important and difficult works without the aid of study guides or other secondary material, and to follow the development of Joyce as an artist. Although the course may be taken in either term, the student gains a better sense of Joyce’s genius by enrolling for two terms. (Mr. O’Connor)

Shakespeare
ENGL-536AA/1
ENGL-536AA/2
ENGL-536AA/3

Every trimester the Department of English offers an elective course on the work of William Shakespeare. Recent course titles include The Play’s the Thing, Shakespeare in the Mediterranean, Shakespeare’s Ecocritical Thought(s), and Shakespeare and Revenge. Detailed information for each term’s offering will be provided here in a timely fashion.

Fall term—“Honey-Tongued Shakespeare”: The Poems and Sonnets. Francis Meres writes in Palladis Tamia (1598), his appraisal of contemporary English poets, that “the sweet witty soul of Ovid lives in melilifous and honey-tongued Shakespeare, witness his Venus and Adonis, his Lucrece, his sugared Sonnets among his private friends, etc.” Arguably his most popular works during his own lifetime, Shakespeare’s “non-dramatic” poems have since been shunted aside by his achievements as a playwright. Our task in this course is to “recover” Shakespeare the poet—a figure to whom we will not oppose Shakespeare the playwright so much as complement—from his emergence in London’s literary scene in the 1590s to the publication of The Sonnets in 1609. (Mr. Bird)

Winter term—Will the Harbinger. Through reading Shakespeare and studying the ideas of six philosophers, we will explore Terry Eagleton’s intriguing statement: “Though conclusive evidence is hard to come by, it is difficult to read Shakespeare without feeling that he was almost certainly familiar with the writings of Hegel, Marx, Nietzsche, Freud, Wittgenstein, and Derrida.” How might Shakespeare’s plays of the late 16th and early 17th centuries anticipate some of the most significant ideas developed in the 19th and 20th centuries? Readings will include selections from each of the six philosophers as well as a variety of Shakespeare’s works, such as As You Like It, Julius Caesar, Othello, or King Lear. (Mr. Fox)

Spring term—Description forthcoming.

Writers in Depth
ENGL-537AA/1
ENGL-537AA/2
ENGL-537AA/3

This course will be devoted to one British novelist each term. Each writer is both a representative of a particular time and an innovator who significantly influenced the history of the novel.

Fall term—Jane Austen. Once taken at her word that her work was very limited, Austen was one of the vital links between the 18th- and 19th-century novelists. As a class, we will read Northanger Abbey, Emma, and Persuasion. Students who have not read Pride and Prejudice will do so, while those who have will read Sense and Sensibility. We will also watch Ang Lee’s Sense and Sensibility, as well as selections from adaptations of other Austen novels.
Winter term—Charles Dickens. We will read *Bleak House*, which many consider Dickens's masterpiece, an extraordinary blend of comedy, gothic mystery, and social protest, told through an intersecting double narrative. We also will read poetry by Blake and others, as well as study paintings and photographs from the time.

Spring term—Virginia Woolf. This term will be devoted to Woolf, who, if she had written no fiction, would still be well known for her brilliant essays. We will read her two greatest novels, *Mrs. Dalloway* and *To the Lighthouse*; several of her short stories and essays; and selections from her autobiographical writings. To put Woolf’s work in context, we will view some of the work of the Post-Impressionist painters; read from the war poets (the First World War is central to her novels); and compare her style with that of her fellow Modernist novelists Joyce and Faulkner. (Ms. Fulton)

**Edith Wharton**

**ENGL-538AA**

(S)

One of America's most gifted literary figures, Edith Wharton created characters at the turn of the last century that we encounter with a shock of recognition today. Her fiction peels back the curtain on the Gilded Age to show us the power of money to seduce, delight, repress, obsess, and destroy men and women at all levels of society. Her elegant prose reverberates with humor, biting satire, and deep psychological insight. We will read the novels *The House of Mirth* and *Summer* as well as short stories from the collection *Roman Fever and Other Stories* and *The New York Stories*, and we will watch the films *The Age of Innocence* and *The House of Mirth*. (Ms. Scott)

**Culture Studies**

**Atomic America: Service Learning**

**ENGL-540AB/3**

The spring term of Atomic America is a service-learning course. The first half of the term looks at an atomized America since the 1980s: niche marketing, gated communities, personal technologies, etc. During the latter half of the term, the class will confront this social atomization directly by engaging in service-learning opportunities. In small groups, participants will read about and work with populations that reflect an atomized America—recently these groups have worked with people with AIDS, the elderly, immigrants, and prisoners. Students then write a final paper that reflects on the literature and their experiences serving and being served by these people. (Dr. Kane)

**African Literature**

**ENGL-540AF**

(S)

This seminar course will challenge students to take a closer look at African literature by tracing its evolution and discussing its diversity in terms genre and geographical setting. Class discussions, written assignments, blog postings and oral presentations will be based on the texts and films recommended for the course. Students will pay particular attention to how literary works produced on the continent have over the ages represented the African identity and how this has been perceived in other parts of the world. Possible texts: *The Thing Around Your Neck* by Chimamanda Ngozi Adichie (Nigeria, West Africa); *Betrayal in the City* by Francis Imbuga (Kenya, East Africa); *A Walk In the Night* by Alex La Guma (Republic of S.A, South Africa); *Minamar* by Naguib Mahfouz (Egypt, North Africa); *The Penguin Book of Modern African Poetry* Edit: Chikane & Moore (continent-wide). A selection of films and articles will be made to complement the study of these texts. (Mr. Nyamwaya)

**Yeats and the Irish Tradition**

**ENGL-541AA**

(F)

Since the establishment of Ireland’s independence in 1921, the unique contribution of this nation’s literature and culture has gained increasing international recognition. W.B. Yeats, the first of four Irish Nobel laureates and one of the dominant poets of the 20th century, played a key role in the revival of Irish culture. The course will focus not only on Yeats’s poetry and drama, but also on the great artists who preceded and followed him. Poetry, fiction, and drama—as well as art, music, and film—will be considered as part of this course, and some of the following may be included.

An Introductory Survey of African American Literature
ENGL-542AA/1
ENGL-542AA/2
ENGL-542AA/3
This seminar course offers an overview of African American literature through reading and writing assignments, discussions, student-led seminars, and visiting lecturers on art, music, and history. Trips to museums and jazz or blues club performances enhance the students’ appreciation of cultural contexts. The fall term focuses on the early writings, on the literature of slavery and freedom, and on the literature of Reconstruction. In the winter, students read the literature of the Harlem Renaissance and African American expressions of realism, naturalism, and modernism. In the spring, the Black Arts Movement and African American literatures, including film and drama, since the 1970s are the foci of the course. (Ms. Hawthorne)

California Dreaming
ENGL-542CA/2
ENGL-542CA/3
In this seminar students are challenged to take a closer look at the Golden State and explore its varying representations in literature and film. In various texts and contexts students will examine California as a regional frontier with distinct terrains and mythical space. In doing so, students will consider why California is viewed as a place of new beginnings; a place of mystery, adventure; a place of hope and disillusionment.

In the winter we will cover works that depict eras from the late1800s through the late 1930s. Texts may include: Muir, The Mountains of California; Austin, The Land of Little Rain; Harte, The Outcasts of Poker Flat; Saroyan, My Name is Aram; McDanielen, The Last Dust Storm; Watsatsuki Houston, Farewell to Manzanar; Steinbeck, Cannery Row; Hammett, The Maltese Falcon; Mori, Yokohama California; Himes, If He Hollers Let Him Go, Fitzgerald, The Love of the Last Tycoon. Films may include: Ford, The Grapes of Wrath; Huston, The Maltese Falcon; Polanski, Chinatown; Wilder, Sunset Boulevard.

In the spring we will cover works that depict eras from the early 1940s through the early 1980s. Texts may include: Chandler, The Big Sleep; West, The Day of the Locust; Valdez, Zoot Suit; Mosley, Devil in a Blue Dress; Guterson, Snow Falling on Cedars; Ginsberg, Howl; Didion, Slouching Towards Bethlehem; Tan, The Joy Luck Club. Films may include: Hawks, The Big Sleep; Wilder, Double Indemnity; Franklin, Devil in a Blue Dress; Hanson, L.A. Confidential; Lucas, American Graffiti; Ray, Rebel Without a Cause; Nichols, The Graduate. (Dr. Long)

Haunted by Shadows: Viewing African Independence through Lens and Literature
ENGL-543AB (S)
This course will offer a brief survey of literature and film about sub-Saharan Africa in the latter part of the 20th century as well as the first decade of the 21st. These works examine the impact of colonialism, corruption, globalization, poverty, tribalism, as well as other forces on nations as they emerge from European domination and strive for independent nationhood. Class discussions will focus on how these authors and filmmakers craft their works as political and social narratives. Possible texts: Albani, GraceLand; Achebe, Things Fall Apart; Fugard, Master Harold...and the Boys; Attax, Everything Good Will Come; Mda, The Madonna of Excelsior; Coetzee, Disgrace; and Larson, Under African Skies: Modern African Stories. (Mr. Bardo)

Race and Comparative American Literatures
ENG 543CL/3
This course will serve as both an introduction to the theoretical foundations of Comparative Race and Ethnic Studies and as a survey of the many literatures written by Americans of color. Reading across the canons of U.S. Latina/o, Native American, Asian American, and African American writers, we will look at the similarities and differences between these racial identities, while also participating in contemporary debates around race and ethnicity. By unpacking common ideologies, such as how America was “won,” we will investigate how writers of color have shaped American identity and, indeed, are constitutive of American literary studies. Throughout the term, we will encounter many writers who explore questions of gender, class, sexuality, and masculinity, and we also will trace these formations alongside their production of a new American identity. (Mr. Khactu)
Prisons are a growth industry today in the United States. This course, through a blending of literature, film, and social sciences, will examine incarceration. By reading novels, memoirs, and poetry and viewing a few films, we can gain a greater appreciation of the psychological effects of these institutions and the power of art as a means of coping with them (touching then on witnessing and testimonials). We will ask questions about ethics and justice, about self-expression, and about social control. The course will include some experiential learning in the form of a trip to the Essex County Correctional Facility and to a nearby youth court. Some possible titles may include: *Orange Is the New Black*, *Gould's Book of Fish*, *The Trial*, *Brothers and Keepers*, *A Place to Stand*, *One Day in the Life of Ivan Denisovich*, and *Zeitoun*. (Dr. Kane)

Professor and theorist Annamarie Jagose described "queer" as a term that addresses "mismatches between sex, gender, and desire." In this course we will examine a wide range of literature, from classical antiquity to the present which explores and questions categories of gender and sexuality. Situating each work within its particular social and historical contexts, we will ask what these authors were up to in their own time and what their works can teach us today. Topics include: expressions of same-sex love and affinity; the impact of race and class on sexuality (and vice versa); the relationship between feminism and lesbian practice; the significance of place, real and imagined; sexuality and the fields of law, medicine, psychiatry, religion, and sociolinguistics; homophobia, transphobia, and heterosexism; AIDS activism; queer performance; trans identities and narratives; and the debate over same-sex marriage.

The first term will focus on works before 1900—or, the approximate historical moment in which the medical and psychological term “homosexual” came into use. Authors may include Sappho, Plato, Shakespeare, Marlowe, Tennison, Whitman, Melville, Wilde, and James. The second term will focus on 20th- and 21st-century works. Authors may include Baldwin, Nugent, Ginsberg, Lorde, Winterson, Wojnarowicz, Feinberg, Kushner, Hwang, Rich, Bishop, Stein, Crane, and H.D. (Dr. Gardner)

What does it mean to be Asian American? This seminar tackles how Asian American writers and filmmakers have attempted to answer this seemingly simple question over the past two centuries. From the first writings of nineteenth-century newly arrived immigrants and silent films created in San Francisco Bay Area Chinatowns to contemporary transnational writers and filmmakers examining a larger diaspora, Asian American literature and film covers a wide breadth of diverse histories, memories, identities, and experiences. Indeed, is there even a singular experience to being Asian in America, and how do we represent that experience? Does an author or filmmaker need to be Asian (or even American) to create an “Asian American” work? Or can we think of “Asian American” writing and film as an aesthetic genre, separate from the actual racial identities of its authors? We will critically investigate what “Asian American” writing and film means and how this identity can be useful for us all.

In the fall term, we will read canonical authors like Maxine Hong Kingston and Jhumpa Lahiri to examine the many varied histories of Asian immigration to the United States, along with early problems with assimilating (or rejecting) an American identity. In the winter term, we’ll concentrate on “bad citizens,” activists, and rabble-rousers, from experimental poets like Theresa Hak Kyung Cha to transgressive documentaries, often reflecting on American foreign policy and its legacies of internment, war, and trauma. In the spring term, we’ll turn to global intersections between Asia and Asian America, reading texts from writers like Jessica Hagedorn and Karen Tei Yamashita and watching films from directors like Ang Lee and Trinh Thi Minh Ha. Through the entire year, we also will trace how race, gender, sexuality, and citizenship have all evolved to impact Asian American identity, both historically and in the future. (Mr. Khactu)

In her 1928 lecture, Virginia Woolf argues that “a woman must have money and a room of her own if she is to write fiction.” *Women’s Studies and Literature* is a course that gives women writers and thinkers a room of their own: a room in which students will explore the themes of gender, race, class, sexuality, and identity from a wide range of perspectives. We will use literature and theory to ask questions such as,
What is a woman? Is writing a political act? How have race and class intersected with gender in women's lives throughout history? In addition to spanning the genres of memoir, fiction, essay, drama, poetry, and film, the course invites students to consider how feminisms, women's voices, and theories of gender impact their own lives and the world around them. Each term of the course will explore different core texts and will be organized by theme, including: femininity and masculinity, separate spheres ideology, motherhood and family, hysteria and the body, politics and resistance, globalization, sexuality, the American slave plantation, beauty, and more. Authors will include Octavia Butler, Kate Chopin, Maxine Hong Kingston, Audre Lorde, Charlotte Perkins Gilman, Toni Morrison, Louisa May Alcott, Alice Walker, Adrienne Rich, Sylvia Plath, Margery Kempe, Toi Derricotte, Jhumpa Lahiri, Ursula K. LeGuin, Virginia Woolf, Marjane Satrapi, Margaret Atwood, bell hooks, Joy Harjo, and Alison Bechdel. (Ms. Staffaroni)

Period Studies Courses

John Donne and 17th-Century English Poetry
ENGL-547JD
(W)
John Dryden famously remarked that John Donne “affects the metaphysics not only in his satires but in his amorous verses, where nature only should reign, and perplexes the minds of the fair sex with nice speculations of philosophy, when he should engage their hearts, and entertain them with the softness of love.” Described in the seventeenth century as “witty” or “conceited” (from Italian, concetto, “concept”), Donne and other poets who wrote what has since been termed “metaphysical poetry” experimented with new ways in which to explore lyric sensibility in an era of tremendous change. Among the topics that we will consider in this course are formal and metrical innovations, the use of irony and paradox, catachresis and hyperbole, and the so-called “metaphysical conceit,” the complex image (a book, a globe, the legs of a compass) with which poets like Donne draw startling analogies to the heightened experience of erotic or spiritual love, a process in which, as Dr. Johnson wrote, “the most heterogeneous ideas are yoked by violence together.” (Mr. Bird)

Nonconformity in the American Renaissance
ENGL-548AR
(F)
In his essay “Self-Reliance” (1841), Ralph Waldo Emerson urged his readers to trust themselves, to refuse to conform to societal expectations, and to avoid “a foolish consistency,” which he famously scorned as “the hobgoblin of little minds.” He wasn’t alone. In the mid-19th-century—during what has been called the “American Renaissance”—American philosophers, poets, and fiction writers urged their readers to resist established norms from a variety of political, social, and artistic standpoints. In this course we will survey the concept of nonconformity across a range of literary genres, political persuasions, and philosophical traditions, situating each manifestation of nonconformity within its particular social and historical contexts. Topics include: religious dissent, social rebellion, romantic idealism, political insurgency, formal innovation, subversion of generic conventions, declarations of aesthetic independence, ethical dilemmas, and failed attempts at nonconformity. Authors may include Emerson, Melville, Hawthorne, Whitman, Thoreau, Fuller, Dickinson, Douglass, Jacobs, Walker, Fern, and Poe. Requirements include active participation in class discussion, regular entries to our course blog, a series of short writing assignments, a class presentation, and a final project. Curiosity and the courage to take intellectual risks are also expected and rewarded. (Dr. Gardner)

The Internet in Print
ENGL-549DD
(S)
Has literature adapted to the Internet? Has the Internet changed literary production? We will seek to address these questions by thinking about how contemporary novelists and poets working in traditional print media write about—and sometimes avoid writing about—the Internet as a subject. In addition, considering that the Internet has become the primary space in which many people read, write, and interact, we will examine how professional and non-professional writers use the Internet as a venue for literary production. While we will read theory, criticism, and other media, we will ground our discussions in literature, the authors of which may include Chimamanda Ngozi Adichie, Dave Eggers, William Gibson, Tao Lin, Patricia Lockwood, Craig Lucas, Thomas Pynchon, and Nayyirah Waheed. (Mr. Rielly)
Elective Courses Recently Taught, but Not Offered in 2015–2016

- **Fresh Fiction: Advanced Writing Workshop in Contemporary Storytelling**  
  ENGL-506AA

- **Cinema Symbiosis**  
  ENGL-511AA

- **Media Studies**  
  ENGL-511AB/1  
  ENGL-511AB/2

- **New Media Studies**  
  ENGL-511AC

- **The Epic Poem**  
  ENGL-512AA

- **The Short Novel: Risk and Romance**  
  ENGL-513AA

- **The Literature of Travel Writing**  
  ENGL-518AA

- **Comedy and Satire**  
  ENGL-518CS

- **Being, Thinking, Doing**  
  ENGL-521AA

- **Under the Fur: Animals in Literature**  
  ENGL-521BB

- **Rememories: Trauma and Survival in 20th-Century Literature**  
  ENGL-524AA/1

- **Literature of Resistance**  
  ENGL-526AA

- **Arthurian Clatter**  
  ENGL-526BB

- **The Novel After Modernism**  
  ENGL-527AA/1  
  ENGL-527AA/3

- **Troubling Literature: Contesting Authority In and Through Literature**  
  ENGL-528AA

- **Evil, be though my good: Paradise Lost**  
  ENGL-539AA

- **Don Quixote**  
  ENGL-539DQ

- **Politics, Religion, and Literature through Salman Rushdie’s Midnight’s Children**  
  ENGL-540IN

- **Contemporary Caribbean Literature**  
  ENGL-543AA

- **Steal This Course!**  
  ENGL-544ZZ

- **Modernism**  
  ENGL-546AA  
  ENGL-526AA
The study of history and the social sciences provides certain kinds of knowledge, skills, and understanding fundamental to a liberal education. An understanding of the American past continues to be a prerequisite for a participating citizen in a constitutional republic. Vital though such study is, an understanding of our nation alone is not enough. The examination of other cultures around the globe is crucial for broadening a student's understanding of an interdependent world. The Department of History and Social Science therefore integrates the study of international cultures throughout its program. Detailed information on the department, faculty, courses, and other aspects of history and social science may be found at www.andover.edu/history.

**Diploma Requirements**

Entering four-year students must complete seven terms of departmental study successfully. **HIST-100** is required for all ninth-graders. For these students, a trimester of **HIST-200**, taken in the tenth grade, and three terms of U.S. history (**HIST-300/4 or -300/5 and -310**) complete the department's requirement.

Students entering as twelfth-graders and postgraduates are strongly encouraged to take courses in history and social science but are not required to do so unless (1) the department deems their previous preparation inadequate, in which case they will be required to complete a term of departmental study; or (2) they took U.S. history in ninth or tenth grade, for which the department ordinarily does not grant credit.

For one-year international students, the diploma requirement is the completion of three trimesters of history, starting with **HIST-320**.

The Department of History and Social Science grants no credit for summer study, including work completed at Phillips Academy's Summer Session.

**Placement**

The department is dedicated to placing students in the appropriate level of history study. Such placement is ordinarily done by departmental review of a student's previous record.

On the basis of their previous academic record in history and social science and other subjects, some students may be advised to wait to begin the U.S. history sequence—a term (begin in January) or a year (begin the following September).

Whether so advised by the department or not, all students and their advisors should understand that there is no requirement that students begin U.S. history during the upper year. Indeed, many students with strong interests in other areas may find it to their advantage to postpone completion of the history and social science diploma requirement until senior year.

In all cases, final individual placement is determined by the department chair. Explicit permission of the department chair is required to start U.S. history in the winter term of upper year.

**Phillips Academy Archives**

The Department of History and Social Science encourages the use of the Academy's extensive archival collection. For students who have completed **HIST-300** or -310 and are interested in pursuing work with the raw materials of history (including oral history), the Academy archivist offers a unique tutorial-research opportunity on some aspect of the history of Phillips Academy or Abbot Academy. Students undertaking archival study for credit should apply for an Independent Project through the Dean of Studies Office.

**Required Sequence in World History**

Four-year students are ordinarily expected to complete **HIST-100** and **HIST-200** before enrolling in other courses in the department. Three-year students must complete **HIST-200** before enrolling in other courses in the department.

### World History 1000–1550: When Strangers Meet

**HIST-100/0**

(A YEARLONG COMMITMENT)

Four class periods. For Juniors. **When Strangers Meet** explores and connects key episodes in world history that contributed to the emergence of a global network. The course begins with the rise and reach of Islam, then examines the Mongol empire, and ends with the rise of European nation states and their subsequent competition overseas. By delving into specific stories, from Mansa Musa's pilgrimage to Mecca, to Marco Polo's appointment to the court of Khubilai Khan, to the first interactions between European explorers and Native Americans, students examine the political, social, and cultural forces that shaped the development of society from 1000 to 1550. An equally important objective of the course is to hone the skills...
of historians and social scientists; including the abilities to: think objectively; read and evaluate primary documents and secondary materials; organize outline notes; distinguish between more and less important evidence to employ in written and oral argument; use library research tools; and utilize a variety of textual, visual, statistical, and physical materials to understand and explain the past.

The Early Modern World, 1450–1750
HIST-200
(F-W-S)
Four class periods. For Lowers. Focusing on developments in the Atlantic Rim, this course offers a broad historical perspective on the period between 1450 and 1750, examining the exchange of people, goods, and ideas among societies based in Europe, Africa, and the Americas. Through close scrutiny of the empires that rose and fell on both sides of the Atlantic, this course charts the social, economic, cultural, and political development of the Atlantic World during the early modern period. As in HIST-100, a central aim of the course is to enhance student development of the essential skills of historical analysis and exposition. Particular emphasis will be placed on the skills of critical reading and historical writing. To that end, this course culminates with a research project related to key themes in Atlantic history.

Required Sequence in United States History

The United States
HIST-300/4
HIST-300/5
(A TWO-TERM COMMITMENT)
Four class periods. For Uppers and Seniors. This course, along with HIST-310, completes the department’s diploma requirements. The sequence emphasizes three goals: a survey knowledge of American history through World War II; the acquisition of skills by daily exercises in reading, note-taking, and writing; and in-depth study of organizing themes.

Prerequisite: Permission of the department chair for HIST-300/5.

The United States
HIST-310
(F-S)
Four class periods. For Uppers and Seniors. Students must take HIST-310 in the term immediately following their completion of HIST-300. The focus is on the United States after World War II.

Prerequisite: Successful completion of HIST-300/4 or -300/5.

Students completing this course who wish to take the College Board Advanced Placement (AP) exam should check with their teachers, since extensive review is required.

Topics in United States History for International Students
HIST-320/4
(A TWO-TERM COMMITMENT)
Four class periods. A course for entering Seniors for whom English is a second language. The intention of this course is to recognize the particular needs and strengths of students. The content is focused around key questions and issues in United States history. These include how a “democracy” emerged in America, the enduring dilemma of race and ethnicity, the rise of the American economy, and America’s role in the world. The course emphasizes writing and language skills by gradually increasing the complexity of assignments and the amount of reading.

Advanced Courses

Advanced courses, numbered -400 and above, are open to students who have successfully completed at least one term of HIST-300 or, in rare cases, with the permission of the department chair. Each course has four class periods a week, unless noted otherwise. These courses may be taken for a term only, but students may choose to remain in two-term or yearlong elective sequences.

Schooling in America
HIST-SS505
(F)
Four class periods. This course provides a forum for students to examine and understand the historical, sociological, and economic underpinnings of American schooling in all its forms. Students will work
toward developing a nuanced understanding of the highly politicized and personal nature of schooling, at least in part because it is often seen as both the cause of and solution to many of America's most prominent social challenges. After beginning with an examination of the history of schooling in the United States, much of the course then turns to a discussion of the purpose of schooling in America and an examination of key issues in school access, equity, and quality, with particular attention given to the years since 1980. Though the majority of the focus is on K–12 education, some time will be devoted to post-secondary education. Throughout the course, students are encouraged to examine schooling in America as both an observer and a participant, considering not only the nature of American schooling as an institution, but also their experience as a student and the purpose of their own journey through school. (Mr. Rachlin)

**A History of 1968: Year in Crisis**

**HIST-SS515**

(F)

Four class periods. This course will examine the historical forces and societal turbulence that American society faced in 1968. While historically confined to one chronological year, the course will evaluate a subset of historical developments whose trajectory and intersection in '68 caused a bitter struggle over the collective identity of the American people. The course will consider the Vietnam War through Tet, the assassinations of MLK and RFK, the presidential leadership of LBJ, the political tumultuousness of the '68 presidential campaign, the student protest at Columbia and impact of youth, the experience of black nationalists and the connectedness to events in Europe. More generally, the course will examine the historical pathways of American liberalism and conservatism in '68 as well. Students will seek to understand the interplay of these historical events in order to consider how the disparate themes of crisis, courage, inspiration, hopelessness, optimism, and resentment meld together in arguably the most significant year in modern American history. Readings include histories, journal articles, primary sources, and other selected readings. Student assessment includes in-class written work, out-of-class paper(s), a moderate-length research paper, and participation in class discussion. (Mr. Hession)

**Economics I: Macroeconomics and the Global Consumer**

**HIST-SS520**

(F-W)

Four class periods. The course introduces students to the basic principles of macro- and microeconomics and their application and relevance to national and international public policy. Students examine the development of the contemporary global economy and use basic theoretical tools to analyze current issues. Classes consist primarily of discussions, although the course also employs role-playing, films, lectures, and student reports on their term projects. Students completing this course are eligible to enroll in HIST-SS521 and/or HIST-SS522.

**Fall term—Limited to Seniors.** Coupled with HIST-SS521 in the winter, the fall course will prepare students to take both the macroeconomics and microeconomics AP exams.

**Winter term—Preference to Seniors.** Students enrolling in HIST-SS520 in the winter will be prepared to take the macroeconomics AP exam.

**Economics II: Microeconomics and the Developing World**

**HIST-SS521**

(W-S)

Four class periods. **HIST-SS521** continues the introduction to economics begun in **HIST-SS520**. Students utilize the basic principles learned in **HIST-SS520** and study microeconomics, theory of the firm, the organization of markets, and the role of governments in all areas of the global economy. Special attention is given to development economics, resource markets, questions concerning racial and gender wage discrimination, and public sector issues such as health care and the economics of the environment. Students also study a range of economic development models and complete an applied research project using such models in relation to a contemporary developing country. Classes consist of discussions, simulations, debates, problem sets, and team research.

**Prerequisite:** Successful completion of HIST-SS520.

**Economics Research Colloquium**

**HIST-SS522**

(S)

Four class periods. This research colloquium investigates public policy issues in the field of economics. Topics include the debates over sustainable growth, tax reform, supply-side economics, labor organization, national industrial policy, pollution, population growth and welfare policy, and the ethical responsibilities

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of business. Classes center around discussion of individual students' works in progress; a term paper and presentation on an issue of choice are required.

**Prerequisite:** Successful completion of HIST-SS520.

### The Long Civil Rights Movement
**HIST-SS525**

(F)

Four class periods. The course offers a different approach to the history of the Civil Rights Movement by moving beyond the traditional narrative. Our story begins much earlier than the "classical" period of the Civil Rights Movement bounded by the Supreme Court decision Brown v. Board of Education in 1954 and the assassination of Martin Luther King, Jr. in 1968. We begin with the demise of Reconstruction and early efforts to challenge Jim Crow around the turn of the 20th century. We will examine how African Americans organized to protest discrimination in New Deal programs and formed part of the "Labor-Left" coalition and antifascist movement of the 1930s and 1940s. World War II, a watershed event in the black freedom struggle, comprises the "Double Victory" campaign and black internationalism. Besides covering the so-called "high tide" of the movement in the 1960s, the course will provide a much deeper understanding of the Black Power Movement and the turn toward electoral politics in the 1970s and 1980s through the lens of African-American leaders as well as "local people" fighting racial injustice and economic disparities. Moreover, it promises to treat the northern and western theaters of the Civil Rights Movement—with its particular focus on fair housing and employment—as equally important to any that occurred in the South. Monographs, films and occasional guest speakers will augment traditional texts. Assessment will be based on classroom participation, short analytical essays, and a final research project. (Dr. Fisher)

### Comparative Government
**HIST-SS531**

(S)

Four class periods. This course introduces students to the world’s diverse political structures and practices. A comparative study of six nations—Britain, Russia, China, Nigeria, Mexico, and Iran—serves as a core for the course. By examining the political implications of different types of social and economic development, students become familiar both with general political concepts and with a broad array of specific issues, and they are able to use their knowledge as a template for examining how other countries respond to global challenges. Students may choose to write an in-depth paper in lieu of a final exam. The course prepares students to take the AP exam in Comparative Government and Politics, though this is not its primary goal. (Dr. Fisher)

### Asia
**HIST-SS532/3**

(TBD)

### The Middle East
**HIST-SS533/2**

Four class periods. This course offers students a comprehensive introduction to a broad swath of the world in which Islam is the most widely practiced faith and with which the United States is intimately involved. Stretching from Morocco to Kashmir, from the Balkans to Sudan, and to the former Soviet Central Asia republics, this vast area includes the world's oldest crossroads in the heart of the Middle East and a contemporary cauldron of issues competing for our attention. The course features guest speakers, a film library, and opportunities for corresponding via e-mail with people in the region. In addition to books, students use extensive intranet sites and a film library as resources and in daily assignments.

The Middle East will delve into the intricacies of Arab-Israeli relations. We will supplement a recently published "dual narrative" Israeli-Palestinian text with a rich array of primary and secondary sources, including a variety of films and documentary materials. We will examine local, regional, and international ramifications of the conflict. The class will unfold substantially as a seminar, with role-plays, debates, and a research project in the mix as well. Students will be able to connect digitally with other youth in the region. They may choose to participate in a weekly online simulation of the conflict to fulfill some of the daily course requirements. No previous knowledge of the region or its history is required—only a willingness to learn!

### A Social History of Latin America
**HIST-SS535**

(S)

Four class periods. This class will focus on the lives of people in Latin America as well as Brazil. We will cover the history of Mesoafrica and colonial Latin America from pre-Columbian times through independence and to the present. Specifically, we will focus on the social relationships between Indigenous,
African, and European peoples as a way to understand the impact that colonialism has had on the development of national identities. Through a social lens, we will examine the challenges that Latin American peoples have faced in creating stable nations, including issues of sovereignty, social and economic inequality, natural resources, and of course, relations with the United States. We will look at how colonial legacies, neocolonial ties, and globalization have affected Latin America and its people. Questions that we will consider are: How have race, gender, and class influenced national identity development? Historically, what roles have indigenous, blacks, and mixed-race people played in these nations? What challenges has Latin America faced in developing a viable political and economic system? What role has the United States played in the development of Latin American political and economic systems? What do scholars understand to be the lasting legacies of hundreds of years of colonialism and U.S. involvement? (Dr. Ramos)

Race and Identity in Indian Country: Decolonizing Museums and Healing the Wounds
HIST-SS536
(F)
Four class periods. After the Civil War, Louis Agassiz asked the Secretary of War, Edwin Stanton, to “Let me have the bodies of some Indians.” A steady supply of Indian skulls and skeletal remains began to travel from the battlefields of the Plains Wars to universities and the new natural history museums in the east. In 1897, six “ Eskimo’s” were brought south to the American Museum of Natural History in New York as living specimens of a race that anthropologists and archaeologists believed would soon vanish. Qisuk, one of these living specimens, died of tuberculosis. His young son, Minik, was told that his father had received a proper burial in accordance with tribal practices. Fifteen years later, Minik discovered that his father’s remains were in the museum’s collection of Indian bones. Native people were not in charge of their own human remains and material culture. Others would study them and write the history.

This class will meet at the Peabody Museum. We will examine how the emerging disciplines of anthropology and archaeology after the Civil War reflected and created federal tribal policies, the race theory that supported such policies, and how museums in recent years have tried to address these problems. The Peabody has been at the forefront of the return of artifacts to native tribes under the 1990 Native American Graves Protection and Repatriation Act. Students will be able to delve into current NAGPRA negotiations between the Museum and tribal representatives. Our final project will be to develop exhibits using the museum’s collections that could demonstrate a better understanding of a difficult history. Can the wounds of the past be healed, or will the difficult relationships persist? (Ms. Doheny)

Europe: Birth, Revolution, and War
HIST-SS540/1
HIST-SS540/2
HIST-SS540/3
Four class periods. Each of these courses can be taken separately. One term does not serve as a prerequisite for another. If taken as a sequence, these courses offer students an overview of the cultural, economic, social, political, and intellectual history of Europe from the late Middle Ages to the formation of the European Union. Readings will include Wiesner-Hanks’s Early Modern Europe and Merriman’s A History of Modern Europe, primary sources, literature, and a variety of secondary readings.

Fall term—1450–1789. Four class periods. Topics include: the Age of Discovery, the Renaissance, the Reformation, the rise of absolutism, the arts and culture of the Baroque period, the Scientific Revolution, and the Enlightenment. (Dr. Blunt)

Winter term—1789–1914. Four class periods. Topics include: the French Revolution and Napoleon, the revolutions of 1848, nationalism and national unification, liberalism, and European imperialism. (Ms. Mulligan)

Spring term—1914–1992. Four class periods. Topics include: the Great War, the Russian Revolution, political turmoil in the 1930s, the Second World War, the rebuilding of Europe, Eastern Europe during the Cold War, and the collapse of Communism. (Ms. Mulligan)

Gender and Power in Tudor England
HIST-SS543
(W)
Four class periods. Women are at the heart of the Tudor story, either as wives or monarchs in their own right. The story begins with the marriage of Henry Tudor to Elizabeth of York. The story of their son, Henry VIII, and his six wives is well known. The women who became tangled in his desperate search for an heir were well aware of the need to produce male children in an era that believed the sex of a child was determined by the mother. Women such as Anne Boleyn were also adept at playing the marriage game. They knew their own power; they also understood the risks of failure. No monarch better understood the problems that faced a woman in power than Henry and Anne’s daughter, Elizabeth. Her mother had been
executed on trumped-up charges of adultery, and she had seen the power of her sister, Mary, compromised by marriage to a foreign king. When she finally became queen in 1558, she began to craft an almost mythic image of herself as the Virgin Queen. Elizabeth understood the relationship between power and gender better than anyone.

This is an old-fashioned story of kings and queens, but with a twist. It focuses on the women involved in this drama. What were 16th-century notions of power, and how did those ideas affect women? How did women at court navigate ideas of courtly love? How did they manage to walk the fine line between appearing attractive to male courtiers, but also uphold contemporary ideas of virtue? And what happened when these cultural norms were transgressed? (Ms. Doheny)

**Critical Race Theory: The American Dream Deferred**
**HIST-SS545**
(S)

Four class periods. Historically, American society does not recognize race as the language of class. In this discussion-based seminar, students will examine ways in which race and class intersect. Critical race theory eschews the goal of assimilation into current social structure and instead looks at the experience of the “outsider” as a lighthouse that illuminates structural problems within American Society. Students will use Critical Race Theory to analyze historical legal cases—including the nation’s first successful school desegregation in 1931 where Mexican Americans sued San Diego, CA public schools for access and the famous 1957 court-ordered desegregation of Little Rock, AR High school—in addition to contemporary legal cases of “reverse discrimination” such as *Fisher v. The University of Texas* in 2012. Students will ultimately explore the question, “Is the American dream a structural fallacy that has explanation for success but none for failure?” Assignments will consist of selected readings, reflection pieces, article reviews, and a research paper. (Ms. Paulson)

**The American Civil War, 1845–1877**
**HIST-SS560**
(S)

Four class periods. “Future years will never know the seething hell and the black infernal background of countless minor scenes and interiors of the Secession War,” wrote poet Walt Whitman. This course will investigate all aspects of the American Civil War—its origins, its prosecution, its aftermath, its memory—in a scholarly attempt to comprehend what Whitman suggested was incomprehensible. In the search for the meanings of the war, the class will consider dimensions of American life forever transformed by the conflict: slavery, race, gender roles, citizenship, sectionalism, nationalism, the Constitution, labor, faith, family, and the individual. This is not a course on military history. Readings will be primarily drawn from histories, films, memoirs, poetry, fiction, and various primary sources, and may include such authors as Frederick Douglass, Abraham Lincoln, Mary Chestnut, Walt Whitman, Herman Melville, Sherwood Bonner, William Faulkner, Robert Penn Warren, Albion Tourgee, E.L. Doctorow, and Toni Morrison. Students will be assessed based on analytical essays and a final exam. (Dr. Jones)

**The Material Culture of Early America**
**HIST-SS565**
(W)

Four class periods. This course explores the history of multiple Early American societies (with a special emphasis on New England), from the first European contact through the Era of the New Republic, by examining the cultural artifacts that these societies left behind. By using works of art, architecture, maps, and everyday objects as historical sources, this class not only will investigate the societies from which these objects came, but also will explore the value of using nontextual sources to create a historical narrative. This course relies heavily on the collections of the Peabody Museum of Archaeology, the Addison Gallery of American Art, and the Academy’s Archives. Students will make weekly visits to one of these three sites, where they will have opportunities to learn about and interact with important objects in each collection. By the end of the course, students will have developed a keen understanding of the history of Early America between 1607 and 1812 as well as a sense of the important role of objects as historical sources. The course culminates with a research project wherein students write a “cultural biography” of a particular object within the context of Early American history. During this research experience, students will employ historical, archeological, and anthropological methodologies in order to develop a multivalent and dynamic vision of material culture as an important form of intellectual inquiry. (Dr. Blunt)
Shamans, Sacrifice, and Ceremony: The Maya Spirit World from Antiquity to the Present  
HIST-SS566  (W)  
Five class periods. This course, open to Seniors and Uppers, immerses participants into the complex realm of Maya cosmology and religion through the study of topics such as human sacrifice, “witchcraft,” cave ritual, ancestor worship, archaeo-astronomy, spiritual warfare, and the concept of an animating cosmic life force. Although this intellectual journey focuses on the narrow theme of the Maya belief system, it is broadly used as a vehicle to challenge students to step away from commonly held Western ideas concerning the spiritual and natural world and to build toward an understanding of alternatively perceived, culturally-based realities across space and time. Course units drive students to access the multilayered meaning of these concepts by being presented within the anthropological theoretical frameworks of landscape, agency, personhood, and socio-religious power. In and outside the classroom, and through project-based assessments, students actively engage in the study and analysis of archaeological data, ancient forms of graphic communication, and material culture, as well as ethnohistoric and modern ethnographic accounts. Through these investigations—as well as classroom discussion, lectures, interactive exercises, and field trips—students hone written and oral communication, critical analytical, and visual literacy skills. (Dr. Slater)

Women’s, Gender, and Sexuality Studies  
HIST-SS571  (W)  
Four class periods. Pink is for boys and blue is for girls. At least it used to be. We will explore the ways that our everyday lives are guided by socially prescribed gender norms. Through the study of the historical production and contemporary interpretation of the categories of “woman” and “man,” “female” and “male,” “heterosexual” and “homosexual,” we will seek to better understand how gender-based inequalities have evolved and are both supported and simultaneously contested in societies across the world. In addition, we will seek to gain a better understanding of the ways that gender, sex, and sexuality inform local, national, and global efforts to improve the lives of individuals and to achieve social justice for entire communities. We also will explore the intersection of sexuality, gender, sex, race, ethnicity, class, and other forms of identity. Through a variety of sources—written documents, social media, film—this course will introduce students to a wide variety of issues across disciplines, including historical, anthropological, medical, legal, and popular culture. We also will explore contemporary uses of social media as sites of research, activism, and networking. (Dr. Ramos)

Seminars in History & Social Science  
Pending adequate staffing and sufficient enrollment, these seminars are designed for Seniors, though Uppers may enroll with permission of the instructor.

The U.S. from Roosevelt to Roosevelt: America in the First Four Decades of the 20th Century  
HIST-SS577D  (F)  
Four class periods. This course focuses on the lives of Theodore Roosevelt, Eleanor Roosevelt, and Franklin Roosevelt from 1858-1945. We will look at their lives in the context of social and political history, including Progressive Era history (1900-1918), World War I, the 1920s, the Great Depression, the New Deal, and World War II. This course requires weekly blog posts about the reading, timely reading of the course materials, classroom participation, Sherlock days of finding and interpreting research followed by group oral presentations, and three projects. Part of our work together will be expanding our course website to share what we learn with the public. (Ms. Dalton)

Europe 1914–1945: War and Peace  
HIST-SS579  (F)  
Four class periods. Why did Europe become the battleground for two world wars fought within 25 years of each other? This seminar will examine the political, social, and economic conditions in Europe that set the stage for the bloodletting of the first half of the 20th century. The First World War caused the collapse of empires, the death of millions, and a fissure dividing an idealized old Europe and a disconcertingly modern new one. In the 1920s and 1930s the redrawn map of Europe, socialism, fascism, and Nazism all set the stage for the next great conflagration, while the art and literature of those years expressed key cultural
shifts. The Second World War brought horrors that resonate to this day: Auschwitz, the siege of Leningrad, Stalin's purges, and the firebombing of Dresden to name just a few. When the war finally ended it would take a remarkable shift in thinking to reconstruct a war-torn continent. Readings will include historical narrative, literature, and memoirs. Independent reading, research, and writing will be the basis for assessment.

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labor, the economics of the Medici Bank, the evolution of the social status of some creators from craftsman to artist, the devastation of the Black Death, the gendering of different media (e.g., tapestries versus sculpture), and the power of monarchy and papacy.

Winter term—The term stretches from the Reformation through Impressionism, and students examine themes throughout, including the evolving tension over the obscuring of boundaries between the wonders of art and the wonders of nature; the gradual shift of sovereignty from pope and king to individual and from patron to artist; the development of photography; the prevalence of rape imagery; the changes in social regulation, spectacle, and exhibition; and the rise of “globalism” in London and Paris. Students study artists such as Caravaggio, Rembrandt, Bonheur, Courbet, and Monet.

Spring term—Covering the end of the 19th century to the present day, students this term encounter a range of artists, including Paul Cézanne, Pablo Picasso, Käthe Kollwitz, Jackson Pollock, Andy Warhol, Cindy Sherman, El Anatsui, and Banksy. Among other topics, students explore the fragmentation and disappearance of mimetic art, the global catastrophes of depression and war, the development of the cinema, the feminist art movement and the challenges of intersectionality, the solidification of art as commodity (i.e., the economics of the contemporary art market and the politics of museum display), and the post-modern dismantling of the Eurocentric tradition that permeates contemporary visual culture. (Mr. Fox)

Prerequisite: Open to Lowers, Uppers, and Seniors, who may take one, two, or three terms; completion of ART-225 or -350 is recommended but not required.

Religion in America: One Nation, Under God(s)?
PHRE-410
(S)
Four class periods. Open to Uppers and Seniors, and to Lowers with permission of the instructor. In contemporary American public life, religion is everywhere, and the United States is considered one of the most religious countries in the world. This course will examine the role of religion in American history and politics, from colonial times to the present day. Questions to be addressed include: Is America a Christian country? What role did religion play in the founding of America? Did the founding documents seek to create a separation of church and state? How were religious arguments used to justify or challenge slavery? What are the causes of the rise of fundamentalism in the 20th century? What, looking forward, is America’s religious identity in an increasingly diverse and pluralistic society? Texts will include Eck, A New Religious America; Lambert, Religion in American Politics; and a variety of primary source documents and other readings.

Darwin’s (R)Evolution
SCIE-475
(F)
Five class periods. Open to Uppers and Seniors. “Let it also be borne in mind how infinitely complex and close-fitting are the mutual relations of all organic beings to each other and to their physical conditions of life; and consequently what infinitely varied diversities of structure might be of use to each being under changing conditions of life.” —Charles Darwin, on The Origin of Species.

With the publication of the Origin of Species in 1859, Charles Darwin changed the world. For the first time, the past and present of all the organisms on Earth were explained without supernatural processes, with important historical connections now made.

We will explore the history of Darwin’s ideas and the turbulent revolutions they caused, and we will consider the significance of his ideas today in fields as diverse as history, religion, psychology, philosophy, literature, and biology. With such a broad reach across the natural sciences, social sciences, and humanities, no wonder the theory of evolution by natural selection has been called the single best idea, ever.

Specific weekly topics may include: Darwin and the Huxley Family; Inherit the Wind and the Teaching of Evolution; Darwin Abused: Charles Murray and The Mismeasure of Man; Eugenics; What is Social Darwinism?; Evolution and Aesthetics; Evolutionary Psychology; Darwin, Schopenhauer, Nietzsche; Conrad and Evolution; Darwin’s Drawings; Darwin’s Voyages; Darwin’s Politics; God and Evolution?; Capitalism and Evolutionary Theory. (Mr. Holley)
Elective Courses Recently Taught, but Not Offered in 2015–2016

- Disease and Medicine in the United States: Pox and Pestilence
  HIST-SS480 or SCIE-480

- Asia
  HIST-SS532/1
  HIST-SS532/2

- American Popular Culture
  HIST-SS500

- Environmental History
  HIST-SS510
The mathematics curriculum is built around a core sequence of eight trimester courses: three of elementary algebra, two of geometry, one of intermediate algebra, and two of precalculus topics. The completion of these eight trimesters will satisfy diploma requirements, but two additional trimesters are required before a student may enter calculus. Placement of new students in the appropriate first course is made by the department, based on the results of a placement test that is sent to newly admitted students in the spring.

Typically students entering with no prior study of algebra start with MATH-100; those with a partial year of algebra enter MATH-150. If the results of placement testing indicate a need for algebra review, then students who have not taken geometry start with MATH-190 and continue to MATH-210 in the winter.

New students who have taken one year of elementary algebra and one year of geometry will satisfy diploma requirements by taking MATH-320, -330, and -340. On the basis of our placement test, MATH-300/4 may be required for some students before MATH-330 and -340. A student who earns a final grade of 2 or 3 in MATH-320, -330, -340, or -350 may, with departmental permission, retake that course the following term.

Students who plan to take a College Board Subject Test in mathematics should schedule the exam at the test date as close to the end of the appropriate math course as possible. Students who plan to take the Math Level IIC Subject Test should do so after finishing MATH-360; those who plan to take the Level IC exam should do so after finishing MATH-340.

The department offers many mathematics electives beyond precalculus, including coursework in advanced placement calculus, multivariable calculus, and linear algebra. We also offer AP Statistics and typically devote one term of the MATH-630 seminar series to a more advanced class in statistics. Our computer science offerings include an entry-level class for students completely new to the discipline, AP Computer Science, a combined math-computer science offering, and a course in which students learn programming languages used by professionals in Web page design. The majority of students take courses beyond the required level. MATH-350 and MATH-360 complete the precalculus sequence. The department offers many electives beyond precalculus, some of which lead up to and beyond College Board Advanced Placement (AP) exams in calculus, statistics, and computer science.

Every student enrolled in a mathematics course must have a TI-84 graphing calculator. No other models will be used or supported by the department. No calculator that has CAS (Computer Algebra System) capabilities, including, but not limited to, the TI-89, TI-92, and TI-Voyager, may be used for departmental exams.

Courses Leading To Satisfaction of the Diploma Requirement

- **Elementary Algebra**
  - **MATH-100/0**
    - **(A YEARLONG COMMITMENT)**
    - Five class periods. A yearlong course for students who have had little or no algebra. Stress is placed on an understanding of the elementary structure and language of the real number system, on the manipulative skills of simplifying expressions and solving first- and second-degree equations, and on the study and graphing of polynomial functions. Work is done with word problems, inequalities, irrational numbers, and right triangle trigonometry.
    - **Prerequisite:** None.

- **Elementary Algebra**
  - **MATH-150/4**
    - **(A TWO-TERM COMMITMENT)**
    - Five class periods. A two-term course for students who have had some algebra. Stress is placed on the manipulative skills of simplifying expressions and solving first- and second-degree equations, and on the study and graphing of polynomial functions. Work is done with word problems, inequalities, irrational numbers, and right triangle trigonometry.
    - **Prerequisite:** A half to a full year of algebra.

- **Elementary Algebra**
  - **MATH-190**
    - **(F)**
    - Five class periods. A course for students who enter with a full year of algebra and who would benefit from a brief review of algebra. Stress is placed on the manipulative skills of simplifying expressions and solving first- and second-degree equations, and on the study and graphing of polynomial functions. Work is done with word problems, inequalities, irrational numbers, and right triangle trigonometry.
    - **Prerequisite:** A full year of algebra.
Geometry
MATH-210
(F-W-S)
Five class periods. A course for students who have had a strong ninth-grade algebra course but little or no geometry. This course is a thorough and systematic presentation of standard synthetic Euclidean geometry. Emphasis is placed on the need for precision and clarity in the writing of formal proofs.

Prerequisites: A complete course in elementary algebra and good algebraic skills.

Geometry
MATH-220
(F-W-S)
Five class periods. This course continues the work of MATH-210, with increased emphasis on the algebraic and numerical aspects of geometry.

Prerequisite: MATH-210.

Geometry and Precalculus
MATH-280/0
(A YEARLONG COMMITMENT)
Five class periods. A yearlong course for extremely able entering students who have completed with distinction an intermediate algebra course but have not completed a yearlong geometry course. The course covers Euclidean geometry (both synthetic coordinate) and elementary functions. This course completes the diploma requirement and prepares students to enroll in MATH-380/4.

Prerequisite: Placement by the department.

Algebra Consolidation
MATH-300/4
(A TWO-TERM COMMITMENT)
Five class periods. A two-term course for students who have completed a yearlong geometry course and would benefit from algebra review prior to entering the precalculus sequence. The course begins with a comprehensive review of elementary algebra and concludes with topics in intermediate algebra (as listed in the course description of MATH-320). Upon completion of MATH-300, the instructor and department chair will determine whether a student takes MATH-320 or MATH-330 for the spring term.

Prerequisite: Placement by the department.

Precalculus
MATH-320
(F-W-S)
Five class periods. For returning students, this course is taken after MATH-220 (Geometry). Topics include properties of real numbers; factoring; fractional and negative exponents; radicals; absolute value; solutions of linear, quadratic, and radical equations; systems of equations and inequalities; and word problems. In addition, students are introduced to the more advanced features of the TI-84 Plus graphing calculator.

Prerequisite: MATH-220 or its equivalent. Students who earn a grade of 2 or 3 may re-take the course.

Precalculus
MATH-330
(F-W)
Five class periods. An introduction and exploration of functions with abstraction. Multiple representations of a function—as a table of values, as a graph, and as an algebraic rule—are a central theme. Elementary functions (polynomial functions, in particular) and their transformations, compositions, inverses, and applications are emphasized.

Prerequisite: MATH-320 or its equivalent. Students who earn a grade of 2 or 3 may re-take the course.

Precalculus
MATH-340
(W-S)
Five class periods. This course focuses on rational, exponential, and logarithmic functions. The TI-84 Plus is used for continued study of non-linear data sets with special attention to sets that grow exponentially and logarithmically. Elementary work with arithmetic and geometric sequences is included. Note that
entering Seniors whose prior work has not satisfied the diploma requirement must complete MATH-340 or MATH-400.

**Prerequisite:** MATH-330 or its equivalent.

**Precalculus Trigonometry**

**MATH-350**
(F-S)
Five class periods. An exploration of the circular functions: sine, cosine, and tangent. Topics include right triangle trigonometry, simple harmonic motion, applications, and proofs of trigonometric identities.

**Prerequisite:** MATH-340 or permission of the department.

**Precalculus Parametric and Polar Curves**

**MATH-360**
(F-W)
Five class periods. Students will learn how to represent points, sketch curves, and describe motion in two-dimensional space using parametric equations, polar coordinates, and vectors. In addition, students will study the graphs of the conic sections—parabolas, ellipses, and hyperbolas. MATH-360 is the final course in the precalculus sequence.

**Prerequisite:** MATH-350 or its equivalent.

**Off-Cycle Precalculus Sequence**

**MATH-330/3**
**MATH-340/1**
**MATH-350/2**
**MATH-360/3**
Five class periods. The off-cycle sequence of our precalculus curriculum covers the same topics as the course sequences that start with MATH-330 in the fall and winter. However, the topics are covered in less depth and with greater focus on essential skills and concepts. This course sequence is recommended for students who complete MATH-300 during their lower or upper years or who are challenged by the pace and depth of our on-cycle sequence. Students who complete this sequence with a grade of 4 or better are prepared to take MATH-575. All other students are prepared to take MATH-510 or -530.

**Accelerated Precalculus**

**MATH-380/4**
(A TWO-TERM COMMITMENT)
Five class periods. This two-term course begins with a review of polynomial functions and proceeds to cover logarithmic, exponential, and trigonometric functions, inverse functions, parametric equations, polar coordinates, matrices, vectors, complex numbers, and sequences and series. Upon successful completion of MATH-380/4, students will be ready to study MATH-580.

**Prerequisite:** Successful completion of MATH-280/0 with a grade of 4 or higher or placement by the department.

**Elementary Functions II**

**MATH-400**
(F)
Five class periods. A course primarily for entering Seniors who need to satisfy the diploma requirements in mathematics. The course focuses on functions and their applications, including polynomial, exponential, logarithmic, circular, and trigonometric functions. Strong emphasis is placed on graphing and the use of graphs as an aid in problem solving.

**Prerequisite:** Credit for three years of high school mathematics or permission of the department.

**Elementary Functions I**

**MATH-400/4**
(A TWO-TERM COMMITMENT)
Five class periods. This course covers the same topics as MATH-400 but does so in two trimesters instead of one.

**Prerequisite:** Credit for three years of high school mathematics or permission of the department.
Elective Courses

■ **Introduction to Discrete Mathematics and Programming**  
  **MATH-470**  
  (W-S)  
  Five class periods. This course blends a study of programming (using the Python programming language) with mathematics relevant to computer science. Students learn how to design simple algorithms and write and test short programs in Python. The course covers Python syntax and style, as well as data types, conditional statements, iterations (loops), and recursion. Selected mathematical topics include sets, number systems, Boolean algebra, counting, and probability. A student in this course is eligible for credit in either mathematics or computer science. A student who wishes to receive mathematics credit should sign up for MATH-470; a student who wishes to receive computer science credit should sign up for COMP-470.  
  **Prerequisite:** MATH-330 or permission of the department.

■ **Introduction to Calculus I**  
  **MATH-500/3**  
  Five class periods. This course is a one trimester introduction to calculus. Topics include limits, rates of change, optimization, and areas under curves.  
  **Prerequisite:** MATH-400/4 or an equivalent course in trigonometry and elementary functions.

■ **Introduction to Calculus II**  
  **MATH-500/5**  
  (A TWO-TERM COMMITMENT)  
  Five class periods. Primarily for Seniors, but open to other students who want to continue the study of functions and get an introduction to calculus. The calculus topics will include limits, problems of optimization, rates of change, areas under curves, and lengths of curves.  
  **Prerequisite:** MATH-350, -400, or an equivalent course in trigonometry and elementary functions.

■ **Calculus**  
  **MATH-510**  
  (F)  
  Five class periods. Primarily for Seniors. Topics covered include a review of functions and graphing, limits, continuity, determination of derivatives and integrals from graphs of functions (not from their formal definitions).  
  **Prerequisite:** MATH-360 or its equivalent or permission of the department chair.

■ **Calculus**  
  **MATH-520/5**  
  (A TWO-TERM COMMITMENT)  
  Five class periods. This is a continuation of MATH-510. Topics covered include the definite integral, the Fundamental Theorem of Calculus, further differentiation of functions, techniques and applications of integration. The most successful students will be in a position to do the AB Advanced Placement examination in calculus.  
  **Prerequisite:** A grade of 3 or higher in MATH-510 or permission of the department.

■ **AP AB Calculus I**  
  **MATH-560**  
  (S)  
  Five class periods. This is the beginning of the three-term calculus sequence that, together with MATH-570, covers the syllabus of the AB Advanced Placement examination. This term focuses primarily on differential calculus: limits, continuity, derivatives, and applications of derivatives. Graphical, numerical, and analytic methods will be used throughout the course.  
  **Prerequisite:** MATH-360 or its equivalent, with no grade lower than a 3 in MATH-340, -350 and -360.
**AP AB Calculus II**  
**MATH-570/4**  
(TWO-TERM COMMITMENT)  
Five class periods. This course continues the work of MATH-560 finishing the syllabus for the AB Advanced Placement Examination. Topics include optimization, integration, applications of integration, slope fields, and separable differential equations. Graphical, numerical, and analytic methods will be used throughout the course.

*Prerequisite:* MATH-560 completed with at least a 3 or MATH-580.

**AP Accelerated AB Calculus**  
**MATH-575/0**  
(A YEARLONG COMMITMENT)  
Five class periods. A yearlong course in calculus that begins only in the fall. Satisfactory completion of this course prepares students for the College Board AB Advanced Placement exam. This course does not prepare students for MATH-650. This course may require more than the standard four to five hours of homework per week.

*Prerequisite:* MATH-360 or its equivalent, with no grade lower than a 4 in MATH-340, -350, and -360. Those students who do not meet this requirement should take either MATH-510 or -530.

**AP AB Calculus III**  
**MATH-578**  
(S)  
Five class periods. This course is a continuation of the work in MATH-570. The topics covered go beyond the AB curriculum including techniques of integration, arc length, improper integrals, parametric equations, and vectors. Graphical, numerical, and analytic methods will be used throughout the course. There will be time devoted to a comprehensive review of the AB Advanced Placement topics before the AP exam in May.

*Prerequisite:* Completion of MATH-570/4.

**AP BC Calculus I**  
**MATH-580**  
(S)  
Five class periods. This is the beginning of a four-term calculus sequence recommended for students who are well prepared in precalculus. With MATH-590 it covers the syllabus of the BC Calculus Advanced Placement examination. Topics covered include primarily differential calculus: limits, continuity, derivatives, the Chain Rule, related rates, and the Mean Value Theorem. Some integral calculus is also covered. Graphical, numerical, and analytic methods are used throughout the course.

*Prerequisite:* MATH-360 or its equivalent, with no grade lower than a 4 in MATH-340, -350, and -360. Those students who do not meet this requirement should take either MATH-510 or -560.

**AP BC Calculus II**  
**MATH-590**  
(F)  
Five class periods. This course continues the work of MATH-580 in preparation for the BC Advanced Placement examination. Topics include integration and applications of integral calculus.

*Prerequisite:* MATH-580 completed with a grade of at least a 4 or departmental permission.

**AP BC Calculus II**  
**MATH-590/5**  
(A TWO-TERM COMMITMENT)  
Five class periods. A continuation of MATH-590, finishing the syllabus for the BC Advanced Placement examination.

*Prerequisite:* MATH-590 completed with a grade of 3 or better, MATH-570/5 or -575/0 completed with a grade of 5 or better, or permission of the department.
**AP Accelerated BC Calculus**

**MATH-595/0**  
(A YEARLONG COMMITMENT)

Five class periods. A yearlong course in calculus that begins only in the fall. Enrollment is limited to the most able mathematics students. Satisfactory completion of this course prepares students for the College Board BC Advanced Placement exam. **This course may require more than the standard four to five hours per week of homework.** In order to qualify for this course, returning students must perform satisfactorily on a special precalculus qualifying examination given the previous spring term.

**Prerequisite:** MATH-360 or its equivalent, with no grade lower than a 5 in MATH-340, -350, and -360, plus permission of the department and demonstrated excellence on the MATH-595 qualifying exam.

**Honors Mathematics Seminar**

**MATH-630/1**  
**MATH-630/2**  
**MATH-630/3**

Four class periods. Each term’s seminar will be devoted to one topic, which will be developed in depth. Participants need to be prepared to work on one topic in great detail and, in some seminars, to work as part of a team on the solution of problems.

**Fall term—Differential Equations.** One of the most important desires in the study in mathematics is to solve real-world problems by constructing various mathematical models. Many complex problems often require models and equations that include not only elementary functions but also their derivatives. Such equations are called differential equations. In this course, we will investigate several ordinary differential equations, which often times involve one independent variable, and explore how these equations can be used in various applications.

**Prerequisite:** MATH-590, MATH-595 or equivalent and with permission of the department chair.

**Winter term—The Genius of Euler.** Leonhard Euler (1707–1783) was one of history’s most prolific mathematicians. Even today, two centuries later, new works of Euler are still being published. Throughout the six decades of his professional mathematical career, he created and redefined mathematics in a wide range of subjects, from introducing the notation e for the base of the natural logarithm to creating the field of graph theory. This class seeks to give students a glimpse into the genius of Euler by looking at his theorems from his point of view, including working through his proofs in the areas of number theory, logarithms, infinite series, complex variables, algebra, geometry, combinatorics, and graph theory.

**Spring term—Bayesian Statistics.** Bayesian statistics provides powerful tools for analyzing data, making inferences, and expressing uncertainty. This course will provide an introduction to a Bayesian perspective on statistics. Students will begin with some basics of probability and Bayes’ Theorem. We will spend the term looking at the far-reaching consequences and applications of this modest theorem as we learn to create and select statistical models, choose appropriate prior distributions, and apply our models to real data. This course will include a computational component with the statistical software R (available for free).

**Prerequisite:** MATH-590, MATH-595 or equivalent and with permission of the department chair.

**Multivariable Calculus and Linear Algebra**

**MATH-650**  
(F)

Four class periods. The first term of this three-term sequence covers functions of many variables, partial differentiation, gradients, vectors, vector-valued functions, and multiple integration and its applications. During the winter term, the study of multivariable calculus will be completed with line integrals, Green’s Theorem, and Stokes’ Theorem. The remainder of the course covers topics from linear algebra, including row reduction, Gaussian elimination, LU decomposition, matrices, vector spaces, and applications.

**Prerequisite:** MATH-590/5 or -595/0, and permission of the department.

**Multivariable Calculus and Linear Algebra**

**MATH-650/5**  
(A TWO-TERM COMMITMENT)

Four class periods. A continuation of MATH-650.

**Prerequisite:** MATH-650 with a grade of 3 or better, or permission of the department.
Statistics

AP Statistics I
MATH-530
(F)
Five class periods. The first term of a yearlong sequence that prepares for the Advanced Placement examination in Statistics. This term primarily covers the exploratory analysis of data, making use of graphical and numerical techniques to study patterns, and developing plans for data collection of valid information.

Prerequisite: MATH-350 or permission of the department.

AP Statistics II
MATH-530/5
(A TWO-TERM COMMITMENT)
Five class periods. A continuation of MATH-530, finishing the syllabus for the Advanced Placement examination in May. Topics include probability as the tool for producing models, random variables, independence, normal distribution, simulation, sampling, statistical inference, confidence intervals, and tests of significance.

Prerequisite: A grade of 3 or higher in MATH-530.

Computer Courses

The mathematics department teaches introductory and advanced computer science courses and supports some more advanced independent study.

Programming Fundamentals: From Scratch to Python
COMP-350
(F-W-S)
Five class periods. This course begins with Scratch, a programming language that makes it easy to create interactive stories, games, and art. Students will learn about variables, conditional statements (if-else), and iterations (loops), and will design and implement their programming projects in Scratch's drag-and-drop environment. After Scratch, the course moves on to Python, a more sophisticated programming language. Using the Python packages TurtleGraphics and VPython, students will create attractive designs in two- and three-dimensional space. Throughout the course, we will discuss the challenges and the opportunities related to the explosion of computer use in the modern world.

Prerequisite: None.

Languages of the Web
COMP-450
(F)
Five class periods. The proliferation of websites and demand for increasingly complex content have led to an explosion of programming solutions for developing Web pages. This course introduces students to building Web pages in the latest versions of HTML and CSS, and also to programming in Javascript, the most popular option for offering dynamic behavior on the Web. Students explore the tools needed for deploying and managing their own websites and get a preview of other aspects of programming for the Web, such as databases, server-side systems, and Web frameworks.

Prerequisite: None.

Introduction to Discrete Mathematics and Programming
COMP-470
(W-S)
Five class periods. This course blends a study of programming (using the Python programming language) with mathematics relevant to computer science. Students learn how to design simple algorithms and write and test short programs in Python. The course covers Python syntax and style, as well as data types, conditional statements, iterations (loops), and recursion. Selected mathematical topics include sets, number systems, Boolean algebra, counting, and probability. A student in this course is eligible for credit in either mathematics or computer science. A student in this course is eligible for credit in either mathematics or computer science. A student who wishes to receive mathematics credit should sign up for MATH-470; a student who wishes to receive computer science credit should sign up for COMP-470.

Prerequisite: MATH-330 or permission of the department.
**AP Computer Science I**  
**COMP-500**  
(F)  
Five class periods. The first term of a yearlong course in algorithms, object-oriented programming, and data structures, guided by the College Board’s AP Computer Science course description. The course covers Java language syntax and style, classes and interfaces, conditional and iterative statements, strings and arrays.  
**Prerequisite:** MATH-340 or permission of the department.

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**AP Computer Science II**  
**COMP-500/5**  
(A TWO-TERM COMMITMENT)  
Five class periods. This course is the continuation of COMP-500. The emphasis is on Object-Oriented Programming (OOP), searching and sorting algorithms, recursion, data structures, and the design and implementation of larger programs, including the College Board’s required case study and team projects. This course completes the preparation for the Advanced Placement exam in computer science.  
**Prerequisite:** COMP-500.

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**Honors Computer Science Seminar**  
**COMP-630/1**  
**COMP-630/2**  
**COMP-630/3**  
Four class periods. This class offers students with experience and advanced knowledge of computer science the opportunity to explore specific topics beyond the College Board’s AP curriculum. Topics will vary from year to year and may include data structures, advanced Web page design, or graphical user interface design. This course may require more than the standard four or five hours per week of homework.  
**Fall term—Software Design.** Once the technical groundwork is in place, creating good software is all about empathy: toward the users of the software and toward the other developers who will work with its source code in the future. This course covers the fundamental practices that guide software engineers in building successful software: user-centered design, software testing, software architecture design, good programming practices, and collaborative developer tools, including version control systems (like Git) and issue trackers. The course is project-based, with student teams developing Web applications in Python and Javascript.  
**Prerequisite:** A grade of at least 5 in COMP-500 or permission of the department chair.

**Winter term—Computer Graphics.** This term’s focus is all about putting a virtual world on the screen. Students learn the fundamentals of 3D geometry, spatial transformation, and rasterization, as well as modern OpenGL features that allow flexible rendering at blazing speed. Along the way, students learn basic linear algebra, C++, and GLSL. Projects include a projection-based renderer, a raytracer, and an OpenGL shader application.  
**Prerequisite:** A grade of at least 5 in COMP-500 or permission of the department chair.

**Spring term—Data Structures and Algorithms.** Four class periods. Niklaus Wirth, the inventor of Pascal programming language, wrote, “Algorithms + Data Structures = Programs.” Choosing appropriate data structures in a program is essential for sound software design and creating software that meets the speed and memory requirements. In this course, we will study stacks, queues, linked lists, recursion, binary trees, hash tables, heaps, priority queues, and analyze the efficiency of algorithms that work with these data structures. Students will practice implementing their own linked lists and binary trees; Java Collections Framework classes will be used in larger programming projects. Students will work on projects individually and in teams. Textbook: Java Methods, 3rd AP Edition, chapters 19–26.  
**Prerequisite:** A grade of at least 5 in COMP-500 or permission of the department chair.

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**Elective Courses Recently Taught, but Not Offered in 2015–2016**

**Topics in Statistics**  
**MATH-410**
Diploma Requirements in Music

• Entering Juniors must earn no fewer than a total of four credits in art, music, and theatre and dance, with at least one credit each in art and music. Those who enter as Juniors should complete one credit in music and one credit in art by the end of their Lower year.

• New Lower must earn no fewer than three credits in art, music, and theatre and dance, with at least one credit in each in art and music.

• New Uppers must take at least one term in either art or music.

• New Seniors have no diploma requirement in music, but are encouraged to take at least one term of art, music, or theatre.

Music Placements

All entering students must fill out a music placement questionnaire to determine the level at which they will enter the music curriculum.

• Students who matriculated as Juniors and Lowers should take their first music course (MUSC-225, -235, or -400 as placed) by the end of lower year, which qualifies them for any 300-level Intermediate Elective or for some 400- or -500-level Advanced Electives. Students who matriculated as Juniors or Lowers and placed into MUSC-225 who have not taken it by the end of lower year will take MUSC-350 during upper or senior year to fulfill their introductory music diploma requirement. Students who matriculated as Juniors or Lowers and placed into MUSC-235 who have not taken it by the end of lower year may enroll in a 300-level elective during upper or senior year to fulfill their introductory music diploma requirement.

Note: Entering Juniors who have been placed into MUSC-400 and who wish to take the entire yearlong AP Music Theory sequence during their upper or senior year will need to petition for permission to postpone their first term of music beyond the end of lower year.

• Students who matriculated as Uppers may fulfill their diploma requirement in the visual and performing arts with MUSC-350, a 300-level elective, or MUSC-400, according to their placement.

• Entering Seniors have no diploma requirement in music or art, but should complete the music placement questionnaire if they wish to take a music course.

The course into which each student is placed (MUSC-225, -235, -350, or -400) serves as the prerequisite for all electives. After completing their placed course, students are eligible to take any 300-level elective, MUSC-410, -485, and -530.

Introductory Courses

The following three courses contribute toward satisfying the diploma requirement in music.

The Nature of Music A

MUSC-225
(F-W-S)

Five class periods. Open to Juniors and Lowers only. This course offers a basic introduction to music literature, theory, performance, and composition. Music from various cultures and historical periods is examined in an attempt to increase student awareness of the musical languages and practices. Students compose several original compositions, and they also receive instruction on musical instruments. No previous experience in music is required.

The Nature of Music B

MUSC-235
(F-W-S)

Five class periods. Open to Juniors and Lowers only. This course is designed for students who have had some experience reading music and playing an instrument. As a more advanced version of MUSC-225, it will include more extensive experience in composition. Study of some core works of music literature from a variety of cultures will help develop listening skills, and there will be opportunities for live music-making in class.
Understanding and Making Music
MUSC-350
(F-W-S)
Five class periods. MUSC-350 embraces the belief that we are all musical beings, capable of understanding, interpreting, and even participating in music. In this course, students should expect to develop skills in Western and non-Western music which will be used as vehicles for creative expression. Students will listen to, perform, improvise, and compose music of various genres, eras and regions, and will write about those experiences. No previous experience in music is required.

Jazz History
MUSC-310
(W-S)
Four class periods. This course begins by examining jazz's mixture of African and European traditions and the subsequent pre-jazz styles of spiritual, blues, and ragtime. It then proceeds with a study of 20th-century jazz styles, beginning with New Orleans and culminating with the multifaceted creations of today's artists. Along the way the course pays tribute to the work of some of jazz's most influential innovators, including Louis Armstrong, Duke Ellington, Count Basie, Billie Holiday, Charlie Parker, and Miles Davis. Original recordings, photographs, and videos are used extensively throughout the term. (Mr. Cirelli)

Topics in Western Music History
MUSC-330/1
MUSC-330/2
Five class periods.

Full term—A one-term survey of Western music history focusing on 18th-century Classicism and 19th-century Romanticism. Music is viewed as a mirror of its time. Selected readings and repertoire from these musical time periods are studied through melody, harmony, rhythm, form, and style, as well as literature, religion, mythology, politics, and biographies.

Winter term—A one-term survey of Western music history focusing on music from the Medieval, Renaissance, Baroque, and Contemporary time periods. Included is the study of American music, including jazz and rock genres. Repertoire from these musical time periods is studied through melody, harmony, rhythm, form, and style, as well as literature, religion, mythology, politics, and biographies. (Mr. Lorenço)

Survey of Music History
MUSC-330A/3
Five class periods. A one term survey of Western music history. The course progresses chronologically from classical antiquity to the music of today, exploring along the way the religious, social, historical, and human issues surrounding music and its composition. Students who took MUSC-330/1 and/or MUSC-330/2 are not eligible for this course. (Mr. Lorenço)

Electronic Music
MUSC-360
(W-S)
Four class periods. This composition course is designed to enable students with modest notational skills to use electronic equipment in order to compose music. Equipment used includes mixing board, analog and four-track tape recorders, digital stereo and eight-track recorders, analog and digitally controlled synthesizers, drum machine, Macintosh computer, and sequencing software (Professional Performer). Projects include compositions in the style of musique concrète and other sound collages using synthesizers. Space limitations in the electronic music studio require that the course be limited to nine students per term. A lab fee of $30 is charged for the use of the equipment. This course does not focus on popular music. MUSC-360, if failed, cannot be made up by examination. (Mr. Monaco)

Film Scoring: Influencing Audiences through Sound and Silence
MUSC-370
(S)
Five class periods. In this course, students will study film music through extensive compositional exercises, analysis of film music from various genres and time periods, and readings regarding the historical uses and practices of film music composition. The course will begin with an introduction to a wide variety of
compositional styles and techniques employed throughout the history of film, including changes resulting from increased technological resources throughout the century. Students will then engage in several composition projects in which they will compose music for film scenes from different genres, such as drama, horror, romance, and action/adventure. Though this course will primarily focus on music from the 20th century, students will also learn about how certain composers connected music to visual images in classical concert music prior to 1900. (Ms. Landolt)

■ Musical Theatre
MUSC-390 or THDA-390
(W)
Four class periods. Open to any student (no prerequisites). One credit assigned to either Music or Theatre. Musical Theatre is an interdisciplinary and experiential class that will explore both the history and performance elements of American Musical Theatre. Beginning with the 1920s and culminating with present day, students will explore the historical context of a significant musical in a particular decade each week. Students also will perform a number from that musical each week, challenging themselves in the discipline of performance. Over the course of the term, students will gain knowledge of American history through the lens of the performing arts and gain experience in performing in the three elements of musical theatre (song, dance, and spoken word). Public performances will occur throughout the term, including a final project.

Advanced Electives
Each of the following courses may require more than the standard four to five hours per week of homework.

■ Introduction to Theory and Composition
MUSC-400
(F-W)
Five class periods. This course is designed to give students a vocabulary to further understand and describe the music they will encounter. After beginning the year learning hand-written musical notation, the study of scales, intervals, tonality, harmony, melodic organization, voice leading in two parts, and harmonic dictation ensues. After this study is complete, students will be in a position to knowledgeably describe every aspect of a typical piece of music that they may come across. Ear-training skills are developed through dictation and sight singing. Students will begin composing near the end of the term, but it should be noted that most compositional activity will occur in the winter and spring. Those taking this course in the fall are encouraged to combine it with MUSC-540 and MUSC-550 to form a yearlong AP Music Theory sequence.

■ The Musical Brain
MUSC-410
(W)
Four class periods. It’s difficult to imagine daily life without music or an iPod; music is an integral part of the personal and communal tapestry of daily life. This elective will explore answers to why music matters so much to us as individuals and as a species. We will reflect upon the role of music in our own lives through an introduction to the rapidly evolving field of inquiry and research related to music and the brain. Through reading assignments, listening assignments, and classroom activities, we will explore the basic science of sound, musical perception, musical cognition, and current theories regarding the role of music in evolutionary biology. Assessment will be based upon regular writing assignments and a culminating final project. (Ms. Aureden)

Prerequisite: Successful completion of a music course at the 200 level or above.

■ Advanced Electronic Music
MUSC-460
(W-S)
Four class periods. This course continues to develop the skills and techniques introduced in MUSC-360. A $30 lab fee is charged for the use of the equipment. MUSC-460, if failed, cannot be made up by examination. (Mr. Monaco)

Prerequisite: MUSC-360.
Out of Tune: Music and the State in the 20th Century
MUSC-485 or HIST-SS485
(S)
One credit assigned in either History or Music. Four class periods. Open to Uppers and Seniors. Can governments control culture? What effect can political oppression have on an artist's work? What does it take to be accepted by a totalitarian state as a legitimate composer? Can you determine the real intentions of a composer working under a repressive regime? While some composers enjoyed approval and even served the purposes of the state, the 20th century is rife with examples of composers whose work was compromised, neglected, even forbidden. The rise of the technology of mass media also aided governments in their use of music. Hitler and Stalin, for example, were both masters of propaganda and were acutely aware of the power of music to influence people.

The course includes an exploration of the work of Richard Strauss, Dmitri Shostakovich, and Aaron Copland, amongst others, as well as the attitudes of the governments under which they worked. It ends with an examination of the artistic deprivations imposed by the Cultural Revolution in China. Students also will research a case study of their choice. A student who wishes to receive history credit should sign up for HIST-SS485; a student who wishes to receive music credit should sign up for MUSC-485.

(Ms. Doheny and Mr. Walter)
Prerequisite: Successful completion of a music course at the 200 level or above or permission of the Music Department chair.

Chamber Music Performance Seminar
MUSC-500C
(S)
Four class periods. This summary course affords students an opportunity to apply their theoretical knowledge to practical music making through the analysis and performance of chamber music. The process of performance and its attending anxieties also will be studied through readings and exercises. Class work consists of sight reading, performing, coaching, and discussing chamber works and performance issues. Homework consists of individual practice, group rehearsal, and readings from books about performance. Students are expected to be advanced instrumentalists and they generally will have taken at least MUSC-400. Because different literature is studied each term, this course may be taken more than once.

Prerequisite: Permission of the department.

Brazilian Cultural Studies
MUSC-530 or ENGL-530AB
(S)
One credit assigned in either Music or History. Four class periods. Open to Uppers and Seniors. Can governments control culture? What effect can political oppression have on an artist's work? What does it take to be accepted by a totalitarian state as a legitimate composer? Can you determine the real intentions of a composer working under a repressive regime? While some composers enjoyed approval and even served the purposes of the state, the 20th century is rife with examples of composers whose work was compromised, neglected, even forbidden. The rise of the technology of mass media also aided governments in their use of music. Hitler and Stalin, for example, were both masters of propaganda and were acutely aware of the power of music to influence people.

The course includes an exploration of the work of Richard Strauss, Dmitri Shostakovich, and Aaron Copland, amongst others, as well as the attitudes of the governments under which they worked. It ends with an examination of the artistic deprivations imposed by the Cultural Revolution in China. Students also will research a case study of their choice. A student who wishes to receive history credit should sign up for HIST-SS485; a student who wishes to receive music credit should sign up for MUSC-485.

(Ms. Doheny and Mr. Walter)
Prerequisite: Successful completion of a music course at the 200 level or above or permission of the Music Department chair.

Intermediate Theory and Composition
MUSC-540
(W)
Five class periods. Continuing from where MUSC-400 leaves off, this course begins the students' hands-on compositional development. Small pieces are composed almost nightly as students now begin to demonstrate what they previously learned to recognize and describe. Also in this term, students will compose several larger pieces that will be written for and recorded by classmates. As the term progresses, the chords of Western music are incorporated into their musical vocabulary one by one. Further study in sight singing
and ear training help to continue that development. In most years, this term includes a field trip to see the Boston Symphony Orchestra in concert.

**Prerequisite:** MUSC-400 or permission of the instructor.

### Advanced Theory and Composition

**MUSC-550**

(S)

Five class periods. Completing the music theory sequence, the focus for the beginning of this term is on preparation for the AP exam in May. Students study non-dominant seventh chords, applied dominant seventh chords, and musical form before a week of AP prep. After the AP exam, a larger project is decided upon. Past projects have included studying Chopin's piano preludes, examining poetic meaning in Schubert's songs, and composing a 3–5 minute work.

**Prerequisite:** MUSC-540 or permission of the instructor.

### Applied Music

All students who are interested in joining a vocal or instrumental performance ensemble are encouraged to do so. Participation in a music ensemble is usually extracurricular, with no academic credit granted. Those wishing to receive academic credit for ensemble participation must simultaneously take private lessons or attend a weekly music theory seminar. Whether participating for credit or as an extracurricular activity, students are expected to attend all rehearsals and performances.

Those who wish to enroll in a 900-level performance-based course (ensemble for credit) may do so at any time and, if they desire, repeatedly. Please note, however, that ensembles for credit (MUSC-900 through MUSC-906) may be counted toward the diploma requirement in the arts only with prior permission from the Department of Music. If permission is granted, students will be allowed to count ensembles for credit toward the diploma requirement only once, and may do so only after taking their first course in music. Instrument and Voice Lessons for credit (MUSC-910) cannot be counted toward fulfilling the diploma requirement in the arts.

### Chorus

**MUSC-900**

(F-W-S)

Two class periods. Open to all qualified students. The chorus is the Academy's major singing group composed of mixed voices, and it performs a variety of choral works, both sacred and secular. Those wishing to take the course on a non-credit basis need no previous choral participation, just a desire to work hard and attend all the rehearsals. Students taking the course for credit must be taking either voice lessons or a weekly seminar in music theory. If they have not sung in the chorus before, they may take the course for credit only with the permission of the instructor. (Mr. Walter)

### Fidelio Society

**MUSC-901H**

(F-W-S)

Two class periods. Open to all classes. This small group of mixed voices is selected from the chorus (MUSC-900). It performs on numerous occasions throughout the year both on chorus programs and on its own. Its repertoire includes music of all types, early and modern, sacred and secular. Membership is by audition and is conditional upon continued good standing in the chorus. A student may take MUSC-901/H and MUSC-900 simultaneously, but only one will be for credit. This course, if failed, cannot be made up by examination. (Mr. Walter)

### Band

**MUSC-902**

(F-W-S)

Two class periods. Open to all qualified students. Tryouts are held any time before the beginning of a term to test the student's ability and to arrange for seating. There are some school-owned instruments available for student use. All types of music for wind ensemble are rehearsed, including marches, as well as classical, popular, and show music. Some sight-reading is done, and at least one public concert per term is given. Students taking this course for credit must be taking either instrumental lessons or a weekly seminar in music theory. (Mr. Monaco)
Jazz Band  
MUSC-903H  
(F-W-S)  
One class period. Open to all qualified students. Auditions are held at the beginning of the term, as usually only one player per part is accepted. This ensemble is in a typical big band format and performs the repertoire of the groups of Count Basie, Duke Ellington, Thad Jones, and Woody Herman, as well as contemporary Latin jazz and jazz/rock fusion compositions. Membership is conditional on continued good standing in the band. Students taking this course for credit must either be taking instrumental lessons or a weekly seminar in music theory. (Mr. Cirelli)

Corelli Chamber Ensemble  
MUSC-904  
(F-W-S)  
Two class periods. Open to all classes, but membership consists primarily of Juniors and Lowers. Students taking Corelli Chamber Ensemble for credit attend Symphony Orchestra and Corelli Chamber Orchestra rehearsals each week. The Corelli Chamber Ensemble performs string orchestral literature and performs once each term. Students electing to take Corelli Chamber Ensemble for credit must either be taking instrumental lessons or a weekly seminar in music theory. (Ms. Aureden and Ms. Barnes)

Amadeus Chamber Ensemble  
MUSC-905  
(F-W-S)  
Two class periods. Open to all classes. Students taking Amadeus Chamber Ensemble for credit attend Symphony Orchestra and Amadeus Chamber Orchestra rehearsals each week. The Amadeus Chamber Ensemble performs string orchestral literature and performs once each term. Students electing to take Amadeus Chamber Ensemble for credit must either be taking instrumental lessons or a weekly seminar in music theory. (Ms. Landolt)

Chamber Orchestra  
MUSC-906H  
(F-W-S)  
Two class periods. Open to all classes. Most of the music played is for string orchestra; the best winds in the school are invited to join for larger works. While Chamber Orchestra may be elected as a credit-bearing course, it is also an activity in which all are invited to participate. Students taking this course for credit must either be taking instrumental lessons or a weekly seminar in music theory. (Mr. Orent)

Private Instrument and Voice Lessons  
MUSC-909  
(F-W-S) (NON-CREDIT)  
One class period. Weekly non-credit lessons are available on all band and orchestral instruments and, in addition, on the piano (classical and jazz), organ, harpsichord, harp, guitar (classical, folk, rock, and jazz), bagpipes, and voice.
There is an additional fee for private lessons; information regarding this fee is available through the Department of Music. Keyboard players are assessed a charge of $30 per term for their use of practice pianos and organs. The Academy owns many other instruments that may be rented for $30 per term. Financial assistance for lessons and/or instrument rental is available for students who are on scholarship.

Private Instrument and Voice Lessons  
MUSC-910  
(F-W-S)  
Two class periods per week, plus required attendance at three on-campus concerts per term. Open to Lowers, Uppers, and Seniors. Juniors may enroll in the course only with the permission of the department chair. One class meeting each week is a 30-, 45-, or 60-minute instrumental or voice lesson. The other weekly class meeting is a theory seminar that reinforces notational and aural skills. Lessons are available on all band and orchestral instruments and, in addition, on the piano (classical and jazz), organ, harpsichord, harp, guitar (classical, folk, rock, and jazz), bagpipes, and voice.
MUSC-910 as a credit course—instrumental lessons may be taken for credit or non-credit—is designed for students of all levels of ability who wish to study an instrument seriously. Instrumental study should not be entered into lightly: this work requires great commitment, self-motivation, independence, and discipline. In order that maximal progress is accomplished in minimal time, MUSC-910 credit students are expected
to practice one hour every day. They must also prepare for a performance of their work at the end of the term. *MUSC-910* does not count toward fulfilling a credit of the arts requirement.

There is an additional fee for private lessons; information regarding these fees is available through the Department of Music. Keyboard players are assessed a charge of $30 per term for their use of practice pianos and organs. The Academy owns many other instruments that may be rented for $30 per term. Financial assistance for lessons and/or instrument rental is available for students who are on scholarship. A *MUSC-910* credit student who is classified by the Department of Music as a beginner **MUST** take *MUSC-910* for two consecutive trimesters.

### Elective Courses Recently Taught, but Not Offered in 2015–2016

- **Improvisation**  
  MUSC-320

- **African Music and Culture**  
  MUSC-340
To participate fully in society, citizens require knowledge of scientific issues and an understanding of how those issues relate to their lives. People who are broadly educated and who also have special expertise in the sciences are vital to the well-being of our planet and its inhabitants. The science program is focused around four major goals.

In fulfilling the science requirement, Phillips Academy students should demonstrate:

1. **They can do science.** A student should pose testable questions and formulate hypotheses; design and conduct experiments; organize, analyze, and interpret results and information; conceptualize and reason through problems, both qualitatively and quantitatively; and articulate and present clearly and accurately ideas, results, and analysis in an appropriately selected format.

2. **They are scientifically literate.** A student should think clearly and critically about major issues relating to science; gain appreciation of and experience with the natural world; perceive the relevance of science to everyday life, including global environmental issues; and recognize the connections and interdependence among the traditional branches of science and between science and other fields.

3. **They participate comfortably and fully in an inclusive community of learners.** Students and teachers should work effectively with persons of varied backgrounds, interests, and abilities in scientific collaboration, perceive the needs of the individual, team, or community, and work to meet those needs.

4. **They accept responsibility for the process of personal education.** A student should play an active role in discussions, experiments, and decisions; ask questions, question answers, and maintain an independence of thought while engaged in learning; recognize that school is a piece of the continuum of lifelong learning, for science is a rapidly evolving field; and, hence, acquire skills that will allow one to learn beyond the halls of academia.

The diploma requirement in science is two yearlong science courses. A strong program will include some experience in biology, chemistry, and physics. Most four-year students take biology in ninth grade, followed by chemistry in tenth grade; however, individual interests, backgrounds, and abilities may indicate other appropriate sequences.

The division of natural sciences offers a variety of introductory and advanced courses, yearlong and term-contained in biology, chemistry, physics, and interdisciplinary fields. Staffing of yearlong courses is the first priority and students who wish to take a full year of science can be so guaranteed only by taking a yearlong course. Enrollment in term-contained courses is limited and determined by seniority.

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**Biology**

Most Juniors will take **BIOL-100** as their introductory science course. Uppers and Seniors are placed in **BIOL-500** or **BIOL-580** by the department chair. In general, students who have had a year of biology and a 6 in **CHEM-250** (or equivalent), a 5 or higher in **CHEM-300** (or equivalent), or a 4 or higher in **CHEM-500,-550 or -580** (or equivalent) will be placed in the **BIOL-580** sequence.

Lowers may take biology only by special permission from the department chair.

### Introduction to Biology

**BIOL-100/0**

(A YEARLONG COMMITMENT)

Five class periods that include significant time in the laboratory. This course is for Juniors. **BIOL-100** is theme-based and focused on major biological topics. Studying a core text will be supplemented with other readings, writing assignments, and data analysis and interpretation. Students will learn a variety of study skills and will have an introduction to library research tools. Laboratory experiments and fieldwork are designed to acquaint students with fundamental biological principles and to build skills in the methods and techniques used to elucidate those principles.

### Animal Behavior

**BIOL-420**

(F)

Five class periods that include significant time in the laboratory or in the field. Open to Uppers and Seniors who have had one year of laboratory science, the course is designed to familiarize the student with the basic principles of animal behavior. The topics that receive the greatest emphasis are territoriality, aggression, mating strategies, courtship, parental behavior, migration, dominance, and the evolution of behavior patterns. Throughout the course, an effort is made to relate the behavior of animals to the behavior of humans. A project or a research paper will be required.
Ornithology
BIOL-421
(S)
Five class periods that include significant time in the laboratory or in the field. Open to Uppers and Seniors who have completed a yearlong science course.

No other group of chordates has captured the human imagination like birds. In the United States alone, approximately 30 million homes have installed birdfeeders, and the sale of feeders, seed, binoculars, and bird guides has become a multibillion-dollar business. The goal of this course is to provide an in-depth look into the world of birds by studying the behavior, anatomy, physiology, and natural history of these feathered vertebrates. The Andover area is rich in habitat diversity and corresponding bird species. A portion of the course will be dedicated to learning the identity (both visually and acoustically) of a segment of this local population. Labs will include numerous field trips and the study of the natural history of birds, using bird mounts, nesting boxes, feathers, and films.

Microbiology
BIOL-450
(W)
Four class periods. Open to Uppers and Seniors who have had one year of laboratory science. From AIDS, tuberculosis, and malaria to strep throat and the common cold, bacteria, parasites, and viruses affect our quality of life and are major obstacles to world development. This course will examine public health threats posed by selected microorganisms. We will study the biology and epidemiology of these microorganisms, learn how to keep ourselves healthy, and develop an awareness of personal and global public health issues.

Topics in Advanced Biology I
BIOL-500/1
Five class periods. Open to Uppers and Seniors. This is the first term of a yearlong sequence covering advanced topics in biology. This term focuses primarily on the cell, touching on topics including cell structure and function, energy metabolism, cell reproduction, Mendelian and molecular genetics, DNA technology, and genomics. Laboratory work is an integral part of this course. In addition, time is set aside in the fall to learn about Andover ecology. The yearlong syllabus for this course provides appropriate preparation for the SAT Subject Test but does not provide specific preparation for the AP exam.

Prerequisite: One yearlong course in chemistry with an average grade of 4 or better. Lowers who received an average grade of 3 or below in chemistry should enroll in a physics course upper year and BIOL-500 senior year. Students who received an average grade of 6 in CHEM-250, 5 or 6 in CHEM-300, or a grade of 4 or higher in CHEM-500, -550 or -580 should take BIOL-580 instead. Final decisions about placement in BIOL-580 will be made by the department chair.

Topics in Advanced Biology II
BIOL-500/2
Five class periods. A continuation of BIOL-500/1. This is the second term of the BIOL-500 year-long sequence covering advanced topics in biology. This term focuses primarily on animal diversity in form and function and human anatomy and physiology. In addition, time is set aside to study major diseases of the world.

Prerequisite: Completion of BIOL-500/1 or equivalent.

Topics in Advanced Biology III
BIOL-500/3
Five Class Periods. A continuation of BIOL-500/2. This is the third term of the BIOL-500 sequence covering advanced topics in biology. This term focuses primarily on evolution, the origins of life, plant biology and ecology. In addition, time is set aside to study important global ecological issues.

Prerequisite: Completion of BIOL-500/1.

Cellular Biology
BIOL-580/1
Six class periods including time each week in the laboratory. Open to Uppers and Seniors. Following a brief review of chemical principles, the course examines the major classes of biomolecules and how they are synthesized and degraded in the cell, with emphasis on reactions associated with energy conversion pathways such as respiration and photosynthesis. Enzyme function is considered both in terms of mechanisms of action and with regard to kinetics. The relationship between structure and function at the molecular level is emphasized in studies of molecular genetics and the control of genetic expression. Biotechnology
is introduced through the laboratory. Not open to those who have completed BIOL-500 or BIOL-540. This course may require more than the standard four to five hours of homework per week.

Prerequisite: A grade of 6 in CHEM-250, a 5 or higher in CHEM-300, or a 4 or higher in CHEM-500, -550 or -580. The department chair will make final decisions about placement of students in BIOL-500 or BIOL-580.

Human Anatomy and Physiology
BIOL-580/2
Six class periods including an in-depth consideration of some of the major systems of the human body. Emphasis is placed on the relationship between structure and function at the cellular, tissue, organ, and organ system levels. Not open to those who have completed BIOL-500 or BIOL-540. This course may require more than the standard four to five hours of homework per week.

Prerequisite: BIOL-580/1 or permission of the instructor and the department chair.

Evolution and Ecology
BIOL-580/3
Six class periods that include significant time in the laboratory or in the field. Sustainability and change are the central themes through which we will consider evolution and ecology. Evolution is a major unifying theme in biology, and the mechanism of natural selection serves as a foundation for examining ecosystems and relationships between populations, including humans. A short library research paper will be required. Not open to those who have completed BIOL-500 or BIOL-540. This course may require more than the standard four to five hours of homework per week.

Prerequisite: BIOL-580/1 and/or -580/2 or permission of the instructor and the department chair.

Molecular and Cellular Biology: Laboratory Research
BIOL-600
(F)
Open to Uppers and Seniors. Permission of the instructor is required. BIOL-600 meets eight class periods (four double periods) a week, requiring extensive work both in and out of the laboratory. As such, students enrolling in BIOL-600 may take a maximum of four additional courses. Six-course loads will not be awarded to students enrolling in BIOL-600, unless the sixth course is a 900-level music course.

Students will learn laboratory techniques through work with model organisms and experimental systems such as bacteria, mammalian cell culture, and C. elegans. After learning a core of methodologies that are used in professional labs, students will apply them to focused research projects, oftentimes performed in collaboration with professional scientists at other institutions. As they develop their project proposals, students will spend a significant amount of time reading articles from scientific journals and learning to craft well-designed experiments. Students will be asked to keep a lab journal and to write and present a scientific paper.

Prerequisite: One year of 500-level biology and one year of chemistry with grades of 4 or above.

Molecular and Cellular Biology: Independent Laboratory Research I
BIOL-610
(W)
Open to Uppers and Seniors. Students wishing to continue work from BIOL-600 may apply directly to the instructor for permission to enroll in BIOL-610. BIOL-610 meets eight class periods (four double periods) a week, requiring extensive work both in and out of the laboratory. As such, students enrolling in BIOL-610 may take a maximum of four additional courses. Six-course loads will not be awarded to students enrolling in BIOL-610, unless the sixth course is a 900-level music course.

During this second term of research, students will learn to troubleshoot their experiments, to make careful observations, and to collect reliable data sets. Students will expand their original scientific papers to include new data and interpretations and will present a poster at an annual science symposium. Laboratory schedules will be determined on a case-by-case basis; however, a student must be able to be in the lab for a minimum of eight hours per week at times when the instructor is available for supervision. This course is an advanced course that may require more than the standard nine hours of work per week.

Prerequisite: Completion of BIOL-600.
Molecular and Cellular Biology: Independent Laboratory Research II
BIOL-620

(S)

Students wishing to continue work from BIOL-610 may apply directly to the instructor for permission to enroll in BIOL-620. BIOL-620 meets eight class periods (four double periods) a week, requiring extensive work both in and out of the laboratory. As such, students enrolling in BIOL-620 may take a maximum of four additional courses. Six-course loads will not be awarded to students enrolling in BIOL-620, unless the sixth course is a 900-level music course. Enrollment is limited and at the discretion of the instructor and the chair of the Department of Biology. Students will complete their experimentation and will analyze their data sets in preparation for presentation at an annual science symposium. Select student work will be submitted for peer-review and potential publication in a scientific journal. Laboratory schedules will be determined on a case-by-case basis; however, a student must be able to be in the lab for a minimum of eight hours per week at times when the instructor is available for supervision. This course is an advanced course that may require more than the standard nine hours of work per week.

Prerequisite: Completion of BIOL-610.

Chemistry

The chemistry department offers two yearlong introductory courses in chemistry, each of which fulfills part of the diploma requirement for a laboratory science. Placement in CHEM-250 and CHEM-300 is generally based on concurrent mathematics placement. Students who wish to take the Chemistry AP exam may prepare for it by taking CHEM-500, CHEM-550, or CHEM-580.

Introduction to Chemistry
CHEM-250/0

(A YEARLONG COMMITMENT)

Five class periods per week. An introduction to the chemical view of the material world, including atomic theory, atomic structure, chemical reactions, the nature of solids, liquids, gases, and solutions, general equilibria, acid-base theories, electrochemistry, and aspects of nuclear chemistry. Emphasis is placed on developing problem-solving skills as well as on making connections between chemical principles and everyday life. A college-level text is used, but the pace of this course is adjusted to ensure that students have ample opportunity to ask questions. Laboratory work is an integral part of the course. The syllabus is appropriate preparation for the College Board Subject Test. High honors work each term adequately prepares a student for CHEM-580.

Corequisite: Registration in MATH-210 or above.

NOTE: This course is NOT open to Juniors.

College Chemistry
CHEM-300/0

(A YEARLONG COMMITMENT)

Five class periods. This course is an introduction to the theoretical framework of modern chemistry, including atomic structure, chemical bonding, phase changes, solutions, chemical reactions, thermodynamics, kinetics, general equilibria, acid-base equilibria, electrochemistry, and aspects of inorganic and nuclear chemistry. Emphasis is placed on developing problem-solving skills and understanding the experimental basis of theories. A college-level text is used. Laboratory work is an integral part of the course. The syllabus of this course is appropriate preparation for the College Board Subject Test.

Corequisite: Registration in at least MATH-320 or above, with the exception of those students enrolled in MATH-280.

Prerequisite: Grade of 4 or above in previous trimester of mathematics and previous algebra course.

NOTE: Juniors who do not maintain an 85% average on the first two tests in CHEM-300 will be switched to BIOL-100 immediately.

Advanced Placement Chemistry
CHEM-500/0

(A YEARLONG COMMITMENT)

Five class periods. CHEM-500 adheres to the revised AP Chemistry syllabus adopted in the 2013–2014 school year. This course will focus on six “Big Ideas” in chemistry: the atomic model; property/structure correlations; changes that happen in chemical reactions; rates of reactions; the laws of thermodynamics; and the breaking and making of chemical bonds. Students who qualify for CHEM-550 or -580 must sign up for those classes. Students not eligible for CHEM-550 or -580 who wish to take a second year
of chemistry should sign up for this course after taking physics. This course may require more than the standard four to five hours per week of homework.

**Prerequisites:** One year of chemistry (either CHEM-250 or -300) and PHYS-400.

### Accelerated Advanced Chemistry

**CHEM-550/0**  
(A YEARLONG COMMITMENT)

Five class periods. This course is not open to students who have taken CHEM-300 or its equivalent, or to Juniors, with the exception of those Juniors enrolled in MATH-650. This is a rigorous course that treats the topics addressed in College Chemistry in greater depth and prepares students for the AP exam in chemistry. Laboratory work is an integral part of the course. This course may require more than the standard four to five hours per week of homework. The syllabus of this course is appropriate preparation for the College Board Subject Test.

**Prerequisite:** Grade of 5 or above in each term of CHEM-250. Students with no previous chemistry who are in MATH-380 or above may enroll in this course. Students with no previous chemistry who are in MATH-360 or below may enroll in this course only with permission from the department chair.

### Advanced College Chemistry

**CHEM-580/0**  
(A YEARLONG COMMITMENT)

Six class periods. This rigorous second-year course builds on principles learned previously, prepares students for the Advanced Placement examination, and includes topics beyond the AP syllabus. This course may require more than the standard four to five hours per week of homework. Laboratory work is an integral part of the course. Students will have an opportunity to review current literature on selected topics or select a lab research topic in preparation for a class seminar they will present in lieu of a final exam at the end of the spring term.

**Prerequisite:** Grade of 6 in each term of CHEM-250 or a 5 or above in each term of CHEM-300.

### Organic Chemistry

**CHEM-610/1**  
**CHEM-610/2**

Five class periods. This course introduces many of the basic reactions and concepts students will encounter in their future studies of chemistry, biology, or medicine. Rather than covering a large number of reactions, as might happen in a second-year (full year) college organic chemistry course, this course emphasizes an understanding of general principles of reactivity and mechanism. The classroom work is supplemented by demonstrations through which students learn some of the fundamental tools of this highly empirical science. In addition, each student gains detailed knowledge of an area of active research related to organic chemistry. After selecting a topic of interest, each student prepares a paper and a class seminar, using current scientific literature. This course may require more than the standard four to five hours per week of homework.

**Prerequisite:** Completion of either CHEM-550 with a 5 or above each term, completion of CHEM-580 with a yearlong grade of 5 or above, or with permission from the department chair. CHEM-610/1 is a prerequisite for CHEM-610/2.

### Environmental Science: Global Climate Change

**SCIE-410**  
(W)

Five class periods. Open to Seniors and to Uppers who have completed one year of laboratory science. This course may be taken in addition to or independently of SCIE-420 and/or SCIE-430. This course prepares students to grasp the science behind the politics. The course begins with an overview of climate science, including atmospheric composition, major biogeochemical cycles, principles of energy conservation and flow, the greenhouse effect, atmospheric and oceanic circulation, and natural climate variability. We then investigate recent anthropogenic climate change, examining both causes and consequences. We will primarily consider impacts on ecological systems, but also assess impacts on public health, economics, and global justice. The second half of the course will address the response to global climate change by investigating mitigation strategies. Students will analyze current and potential future sources of energy,
both nonrenewable and renewable. Readings will include original scientific literature, nonfiction books and essays, text excerpts, and news coverage.

Environmental Science: Food, Agriculture, and the Future
SCIE-420
(S)
Five class periods. Open to Seniors and to Uppers who have completed one year of laboratory science. This course may be taken in addition to or independently of SCIE-410 and/or SCIE-430. This course examines agriculture as a major driver of global environmental change and public health trends. We will explore the demands placed on food production by population growth and a dietary transition, the chemical origins and ecological impacts of fertilizer, and the implications of limited resources of water, land, and oil. The course will integrate fundamental environmental principles of nutrient cycling and energy flow, and examine how agriculture affects land use, climate change, and biodiversity. We will explore public health impacts of agriculture including food safety, antibiotic resistance, and the rise of obesity and diabetes. Finally, we will consider the future of agriculture and food. Readings will include original scientific literature, nonfiction books and essays, text excerpts, and news coverage. Students should be prepared to undertake a term project.

Water and Humanity
SCIE-430
(F)
Five class periods. Open to Seniors and to Uppers who have completed one year of laboratory science. Water and Humanity, an Eight Schools Association (ESA) collaborative course, examines the dynamic and tenuous relationship between water resources and human development. Exploring water from a multidisciplinary, project-driven perspective, students will think critically about the central role water has played and must continue to play in the viability and vitality of all civilizations, as well as the many challenges that people face in sustaining, protecting, and gaining access to usable fresh water. Students will encounter diverse materials, use holistic approaches, and engage in innovative project planning to consider, understand, and propose solutions to complex water issues. Water and Humanity involves working with teachers and students from peer schools that also are ESA members. Using blended methodology involving online videoconferencing and learning, face-to-face conversations and lessons, research and project development, this course will focus on the value of water and on the issues that water scarcity presents within the contexts of such elements as religious belief and practice, the human-water relationship in fine art and architecture, national and imperial infrastructure, and industrial development. Students also will think about the role of water in their own local, regional, and global communities, while researching and proposing their own solutions to complex multidisciplinary water issues.

Love That Dirty Water: The Global Sanitation Challenge
SCIE-435
(W)
Five class periods. Open to Uppers and Seniors. How often do you give thanks for your toilet? While many of us take this basic convenience for granted, around the world 2.6 billion people lack access to any form of improved sanitation. The public and environmental health impacts would be hard to overstate: water-related diseases kill three million people every year and surface waters around the world have been reduced to sewage drains.

The first part of the course will focus on a basic understanding of epidemiology, sanitation’s vital link to human health, and the biology of waterborne diseases. We will then investigate the root causes of current global sanitation challenges incorporating key demographic, financial, social, and political drivers. Students also will examine case studies to see how effective sanitation practices generate economic benefits, protect the environment, and contribute to dignity and social development. Students will read articles, analyze documents, and write weekly short essays—as well as a term research paper—to understand different approaches to improving access to and quality of sanitation.

Bioethics: Humanity in the Post-Genomic Era
SCIE-445
(W)
Five class periods. Open to Uppers and Seniors. This course examines current biological topics that challenge our understanding of humanity and provides a brief introduction to ethical and philosophical anthropology and their roles in setting public policy. We live in a modern age in which major scientific advances are the norm. Bombarded with stories in the news regarding ethical dilemmas pertaining to novel biomedical interventions, it is often difficult for us to make sense of competing arguments without having a basic command of the biological and philosophical issues involved. Questions to be addressed include: What is
a stem cell? When does a developing human being first experience sensation? Show evidence of cognitive abilities? Acquire moral status? How does our modern, post-genomic understanding of human biology influence our philosophical understanding of what it is to be human? Which biological enhancements are ethical? Which are unethical? To what extent (if at all) should the use of biotechnology be regulated in our society? Historical and current readings will be assigned and lively discussions encouraged. Students will be graded through a variety of assessments, including papers, presentations, journals, and class participation. (Dr. Marshall-Walker)

**Prerequisite:** One yearlong course in biology and one yearlong course in chemistry.

### Field Experiments: Putting Good Intentions to the Test
**SCIE-465**

(S) Four class periods. Open to Uppers and Seniors. Have you ever wondered why students procrastinate today, only to be overloaded with work tomorrow? Or the best way to convince them to get a flu shot during the flu season? What about the precise effect of your race and gender as you apply for a job or leadership position? These are all questions that have been explored through a growing body of field, or non-laboratory, experiments in the social sciences.

This course will draw on literature from public health, psychology, behavioral economics, ethics, public policy, and education to explore several aspects of these experiments, including the methodology, analysis, key findings, and applications in the public debate. Class time will be spent with guest speakers, case studies, and in the implementation of a group-designed field experiment. (Ms. Abel)

### Human Origins
**SCIE-470**

(S) Five class periods, including weekly field or laboratory work. Open to Uppers and Seniors. Take a look around. Regardless of where you are, the consequence of three million years of human evolution is evident. This interdisciplinary science course uses insights drawn from history, art, archaeology, and other disciplines to chart the human journey from hominid to the first civilizations that forecast the modern world. Hands-on laboratory exercises emphasize use of Peabody Museum of Archaeology collections and challenge students to apply ancient techniques to solve daily problems of survival.

### Darwin’s (R)Evolution
**SCIE-475**

(F) Four class periods. Open to Uppers and Seniors. "Let it also be borne in mind how infinitely complex and close-fitting are the mutual relations of all organic beings to each other and to their physical conditions of life; and consequently what infinitely varied diversities of structure might be of use to each being under changing conditions of life." —Charles Darwin, on *The Origin of Species.*

With the publication of the *Origin of Species* in 1859, Charles Darwin changed the world. For the first time, the past and present of all the organisms on Earth were explained without supernatural processes, with important historical connections now made.

We will explore the history of Darwin’s ideas and the turbulent revolutions they caused, and we will consider the significance of his ideas today in fields as diverse as history, religion, psychology, philosophy, literature, and biology. With such a broad reach across the natural sciences, social sciences, and humanities, no wonder the theory of evolution by natural selection has been called the single best idea, ever.

Specific weekly topics may include: Darwin and the Huxley Family; *Inherit the Wind* and the Teaching of Evolution; Darwin Abused: Charles Murray and *The Mismeasure of Man*; Eugenics; What is Social Darwinism?; Evolution and Aesthetics; Evolutionary Psychology; Darwin, Schopenhauer, Nietzsche; Conrad and Evolution; Darwin’s Drawings; Darwin’s Voyages; Darwin’s Politics; God and Evolution?; Capitalism and Evolutionary Theory. (Mr. Holley)

### Physics

**PHYS-270/0**

(A YEARLONG COMMITMENT) Five class periods. All students who wish to enroll in PHYS-270 must secure written permission from the department chair. This course is open to Lowers, Uppers, and Seniors who do not yet have the mathematical skills to enroll in PHYS-400. An introductory course in the basic concepts of physics that
emphasizes student participation. After completion of PHYS-270, students are allowed to take PHYS-400 or PHYS-550 if they meet the math prerequisite.

Corequisite: Registration in MATH-210 or higher.

**College Physics I**

**PHYS-400**

(F)

Five class periods. This is the first term of non-calculus physics course, covering classical mechanics in the fall term. Laboratory work is an integral part of the course. The yearlong syllabus for this course provides appropriate preparation for the College Board Subject Test in physics. Completion of a chemistry sequence is not a pre-requisite for enrolling in PHYS-400. However, for students who have completed a Chemistry sequence prior to enrolling in PHYS-400, those who have earned a 4 or better in CHEM-250 or have completed CHEM-300 or CHEM-550 should enroll in PHYS-400. Those who have completed CHEM-250 with less than a 3 should enroll in PHYS-270. Students who have previously completed PHYS-270 can enroll in PHYS-400.

Corequisite: Registration in at least MATH-280/0 or -330 (or permission of the department chair if in MATH-320 in the fall term).

**College Physics II**

**PHYS-400/5**

(A TWO-TERM COMMITMENT)

Five class periods. A continuation of PHYS-400. The last two terms cover electricity, magnetism, wave motion, light, relativity, and atomic and nuclear physics. Laboratory work is an integral part of the course. The year-long syllabus for this course provides appropriate preparation for the College Board Subject Test in physics.

Prerequisite: Completion of fall term PHYS-400.

**Astronomy**

**PHYS-440**

(F-W-S)

Four class periods. Astronomy is the scientific study of the origin, structure, and evolution of the universe and the objects in it. Topics may include patterns and motions in the sky, gravity and orbits, telescopes and light, planetary systems, the birth and death of stars, galaxies, the Big Bang, the search for extraterrestrial life, and the fate of the universe. This course uses 45-minute periods on Mondays, Tuesdays, and Fridays, and a 45-minute evening lab in the observatory on Tuesday nights during study hours.

Prerequisite: Completion of or concurrent enrollment in one chemistry or physics course, and registration in at least MATH-340.

**Physical Geology**

**PHYS-450**

(TBD)

Four class periods. A general introduction to physical geology, to include minerals, rocks, measurement of geologic time by radioactivity and fossils, volcanoes, seismology and earth structure, deformation of strata, faults, and plate tectonics. Some of the periods will be used for laboratory work.

Prerequisite: Previous completion of one year of physics or chemistry, and registration in at least MATH-340.

**Electronics**

**PHYS-520**

(S)

Five class periods. A course in modern solid state electronics that considers passive circuit elements and their combinations, diodes, transistors, and integrated circuits. There will be considerable laboratory work.

Prerequisite: Previous completion of one year of physics or chemistry, and registration in at least MATH-340.

**Astronomy Research**

**PHYS-530/2**

**PHYS-530/3**

Six class periods. In this course students will spend extensive time in the Phillips Academy Observatory, where they will learn to operate the telescope, dome, and CCD camera. Students will learn techniques for visual observing, astrophotography, and photometry. Students will engage in research projects designed to
provide an introduction to research techniques in astronomy. When appropriate, results will be submitted for publication. In addition to conducting ongoing research projects, the class will take time out to observe interesting current events (observing the pass of a near-Earth asteroid, a recent supernova flare-up, a transit of the ISS across the moon, etc.). For the most motivated students, this course will serve as training for an IP in astronomy. The class will meet for three class periods a week. In addition, students will be expected to spend several hours a week in the observatory. Given weather constraints in New England, observing nights will vary.

**Prerequisite:** PHYS-440

**Corequisite:** Completion or concurrent enrollment in MATH-510 or -570 or higher. Students not meeting the prerequisite or corequisite may take the course with the permission of the instructor.

### Advanced Courses

**Calculus-Based Physics**

**PHYS-550/0**  
(A YEARLONG COMMITMENT)

Five class periods. PHYS-550 prepares students for both Mechanics and Electricity and Magnetism of the C level Advanced Placement examination, and entrance to honors-level programs in physics at the university level. Calculus will be used as required. Open to students who (a) will be enrolled in at least MATH-590 or who have completed MATH-575, (b) do not qualify for PHYS-580, and (c) have earned a 4 or higher in their two most recent terms of math. PHYS-400 is also an option for these students. This is a rigorous course that may require more than the standard four to five hours of homework per week.

**Calculus-Based Physics**

**PHYS-580/4**  
(A TWO-TERM COMMITMENT)

Five class periods. This is a rigorous course in mechanics (fall term), and electricity and magnetism (winter term). Calculus will be used as required. This course prepares students for both Mechanics and Electricity and Magnetism of the C level Advanced Placement examination, and entrance to honors-level programs in physics at the university level. This course may require more than the standard four to five hours of homework per week.

**Prerequisite:** A grade of 6 for the year in PHYS-400 or a grade of 5 for the year in PHYS-400 with department chair permission, and enrollment in at least MATH-590 or its equivalent.

**Foundations of Modern Physics**

**PHYS-600**  
(S)

Four class periods. Relativity and quantum mechanics are two theories that completely revolutionized our thinking about the universe. The course is a survey of the basic ideas underlying these theories. Special mathematical techniques needed for a better understanding of the material are developed in the course. This course may require more than the standard four to five hours of homework per week.

**Prerequisites:** Concurrent enrollment in PHYS-550 or completion of PHYS-580, and enrollment in at least MATH-590.

**Fluid Mechanics**

**PHYS-630**  
(F)

Four class periods. Students taking this course will learn about fluid statics and dynamics. Dimensional analysis and derivation of Bernoulli and Navier-Stokes equations will provide the methods necessary for solving problems. This course may require more than the standard four to five hours of homework per week.

**Prerequisite:** Completion of MATH-590/5 or -595/0, and PHYS-550 or -580.
**Physics Seminar**
PHYS-650
(W)
Four class periods. The focus of this course is intermediate mechanics. Topics will vary according to the interests of the instructor and the students. This course may require more than the standard four to five hours of homework per week.

*Prerequisite:* Completion of MATH-590 and of the fall trimester of PHYS-550 or -580.

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**Elective Courses Recently Taught, but Not Offered in 2015–2016**

- **The Root of It All: Plants in the Modern World**
  BIOL-430

- **Sense of Place**
  SCIE-405

- **Disease and Medicine in the United States: Pox and Pestilence**
  SCIE-480
  HIST-SS480
As a complement to our academic, athletic, and arts offerings, our 10-graders are afforded an opportunity to meet once a week during one term of their lower year with a small number of their peers and adult facilitators to relax, reflect, and discuss topics germane to healthy adolescent development.

**PACE**

**PACE-100**

(W-S)

Weekly one-period sessions over the course of the term cover topics including understanding oneself and others, social identity and social bias, harassment, stress management, mental health, and sexuality.

Each PACE Seminar class is facilitated by a faculty member and a Senior. The inclusion of Seniors in the PACE Seminar classes provides a useful generational bridge between the adult leaders and the 10-grade participants.
PHILOSOPHY & RELIGIOUS STUDIES

The department seeks to initiate students into three distinctive human quests: the search for meaning, the search for justice, and the search for the foundations of knowledge. The process of initiation is intended not only to provide an introduction to outstanding literature in the field but also to assist the student in effecting a personal appropriation of the search and in developing the necessary skills for its pursuit. Active class participation is an essential part of this process.

The department diploma requirement is successful completion of any one-trimester course; this requirement applies only to those who attend Phillips Academy for three or four years. Four-year students fulfill their requirement in the lower year. Courses are offered at a variety of levels. Most courses involve four class periods. Seniors require department chair permission to enroll in a 300-level course.

Asian Religions: An Introduction
PHRE-300
(F-W-S)
Four class periods. Not open to Juniors. An introduction to religious studies through examining some of the traditions that originated and flourished in Asia and are practiced by people throughout the world today. Using an approach that is both critical and empathetic, students will explore the fundamental structures of belief, meaning, and practice that constitute the traditions of Hinduism, Buddhism, and Chinese religion, the diversity within each of these traditions, and their multiple manifestations throughout the world. In doing so, students also will explore their own essential questions of meaning in dialogue with these traditions. Texts may include *The Bhagavad Gita*, *The Dhammapada*, and the *Tao Te Ching*. 300-level courses are intended for Lowers, but are also open to Uppers.

Religions of the Book: Judaism, Christianity, and Islam
PHRE-310
(F-W-S)
Four class periods. Not open to Juniors. This course introduces students to the religious traditions that originated in the Middle East, flourished in and formed the West, and are practiced by people throughout the world today. Using an approach that is both critical and empathetic, students will become acquainted with the fundamental structures of belief and meaning that shaped adherents’ lives, the rituals that formed and renewed them, and the social teachings that moved them to action. In doing so, students will learn something about the character of each religious path and about the questions to which we all seek answers. 300-level courses are intended for Lowers, but are also open to Uppers.

The Bible and Its Contexts
PHRE-330
(F-W-S)
Four class periods. Not open to Juniors. This course will introduce students to major ideas and themes from the Hebrew Bible and the New Testament. One goal of the course will be increased biblical literacy: a deepened understanding of significant stories, people, and ideas from these texts and the two major religious traditions that they influence, Judaism and Christianity. Another goal of this course will be a better understanding of how these narratives have been used in historical contexts. For example, how was the Bible used to justify colonialism and, at the same time, to challenge it? This section of the course will look at specific case studies to help students make sense of the way in which the Bible is a living document that is continually being re-understood and reinterpreted. 300-level courses are intended for Lowers, but are also open to Uppers.

Introduction to Ethics
PHRE-340
(F-W-S)
Four class periods. Not open to Juniors. Students in this discussion course will be introduced to a variety of approaches to ethical reflection. Through the use of classical texts and personal and literary stories, students will develop a common vocabulary with which to understand and critically evaluate their moral experience. 300-level courses are intended for Lowers, but are also open to Uppers.

Proof and Persuasion
PHRE-360
(F-W-S)
Four class periods. Not open to Juniors. A practical introduction to informal logic and to the philosophical study of language. Some of the questions raised are the following: What is the difference between a good
argument and a poor one? What are the common fallacies of thought? What are the limitations of logic? What is the meaning of “meaning” and the truth about “truth?” The course stresses the development of individual skill in argument and includes a critical examination of the patterns of thought one encounters every day in magazines, in newspapers, and on television. 300-level courses are intended for Lowers, but are also open to Uppers.

**Views of Human Nature**

**PHRE-370**  
(F-W-S)  
Four class periods. Not open to Juniors. A critical examination of selected traditional and contemporary views of human nature with the following questions in mind: Do we have a characteristic nature? What are our basic needs, purposes, rights, obligations, and values? To what extent are our actions determined by heredity and instinct? Are we free? Are we responsible for our actions? Do the answers to any of these questions differ for males and females? Given an understanding of human nature, how should we structure society to satisfy our needs and take advantage of our potential? Class discussions and written exercises are designed to encourage participants to develop views of their own against a background of a basic understanding of the readings. 300-level courses are intended for Lowers, but are also open to Uppers.

**Applied Logic**

**PHRE-405**  
(S)  
Four class periods. Open to Uppers and Seniors and to Lowers with permission of the instructor. This course is designed to promote critical thinking and rational discourse through real life applications of the concepts and skills of logical analysis. Patterns of sound and unsound reasoning in the various branches of knowledge (science, social science, history, literature) will be explored. Texts may include *Truth* by Harry Frankfurt, *How Doctors Think* by Jerome Groopman, *The Signal and the Noise* by Nate Silver, and *Thinking, Fast and Slow* by Daniel Kahneman.

**Religion in America: One Nation, Under God(s)?**

**PHRE-410**  
(S)  
Four class periods. Open to Uppers and Seniors, and to Lowers with permission of the instructor. In contemporary American public life, religion is everywhere, and the United States is considered one of the most religious countries in the world. This course will examine the role of religion in American history and politics, from colonial times to the present day. Questions to be addressed include: Is America a Christian country? What role did religion play in the founding of America? Did the founding documents seek to create a separation of church and state? How were religious arguments used to justify or challenge slavery? What are the causes of the rise of fundamentalism in the 20th century? What, looking forward, is America’s religious identity in an increasingly diverse and pluralistic society?  
Texts will include Eck, *A New Religious America*; Lambert, *Religion in American Politics*; and a variety of primary source documents and other readings.

**Religion and Pilgrimage**

**PHRE-415**  
(S)  
Four class periods. Open to Uppers and Seniors. This course will examine the theme of pilgrimage across several religious traditions, including Buddhism, Christianity, Hinduism, and Islam. We will examine first-person writings by pilgrims and also seek to situate these reflections within their broader religious traditions. As we do so, we will ask fundamental questions about ideas of home, journey, place, space, and identity. Regular autobiographical writing will be an expectation of this course. Questions of race, class, and gender will feature centrally in our analysis.  
Possible texts include *The Autobiography of Malcolm X*, Basho’s *Narrow Road to the Deep North*, and short stories by Flannery O’Connor. We will also examine several films and musical sources.

**Responses to the Holocaust**

**PHRE-420**  
(F)  
Four class periods. Open to Uppers and Seniors, and to Lowers with permission of the instructor. An exploration of the Holocaust through diaries, memoirs, films, works of fiction, and later nonfiction reflections on the phenomenon. Questions to be engaged will include the following: What was it like for the victims? What was it like for the perpetrators? Who were the bystanders? How could it have happened? What elements from Jewish, Christian, and secular tradition contributed to its possibility? What inspired
and motivated resistance, and how were resistance efforts sustained? How have various Jewish, Christian, and secular thinkers responded to the challenge of this event? What have been some of its effects on our own feelings about life and human beings? Texts may include Night, Between Dignity and Despair, The Sunflower, Tales of the Master Race, Ordinary Men, and The White Rose. Films may include Night and Fog, One Survivor Remembers, Weapons of the Spirit, and America and the Holocaust.

Law and Morality
PHRE-430
(F-W)
Four class periods. Open to Uppers and Seniors, and to Lowers with permission of the instructor. A critical examination of issues that arise out of the relationship between law and morality. Questions of concern include the following: For what reasons, if any, should an individual obey or disobey the laws of society? Which kinds of governments (monarchy, aristocracy, democracy, etc.), if any, are legitimate? To what degree should society restrict the freedom of individuals through laws on matters like abortion, pornography, race, and sexual relations? Class discussions and written exercises are designed to encourage participants to develop views of their own against a background of basic understanding of the readings.

Nonviolence and Social Change
PHRE-440
(W)
Four class periods. Open to Uppers and Seniors, and to Lowers with permission of the instructor. This course will look closely at nonviolent movements for social change, both in America and abroad. As we do so, we will look closely at the ways in which religious narratives and religious identities provide tools for hope and resilience. Students will look closely at questions of race and gender throughout the course. In past years, selected readings have included Ta-Nehisi Coates, “The Case for Reparations”, The Autobiography of Malcolm X; writings of Gandhi and King; and Dreaming Me, a memoir of Jan Willis, a black female Buddhist.

Each of the following courses may require more than the standard four to five hours per week of homework:

Existentialism
PHRE-500
(F)
Four class periods. Open to Uppers and Seniors. The term existentialism covers a broad range of attitudes and values joined together by an emphasis on human existence. The authors brought together in its name share a characteristic concern for the problems of meaning, identity, and choice that confront men and women in everyday life. The lectures, discussions, and readings are designed to help us locate and express these problems as they confront each of us in our own lives, and to assist in understanding and resolving them by drawing on the experiences and insights of the major existentialist thinkers. Readings include Nikos Kazantzakis, Zorba the Greek; Friedrich Nietzsche, Thus Spake Zarathustra; Jean-Paul Sartre, No Exit and Being and Nothingness; and Sören Kierkegaard, The Sickness unto Death.

Justice and Globalization
PHRE-510
(S)
Four class periods. Open to Uppers and Seniors. What is justice? What is the meaning and worth of calls to fight injustice and to strive to make the world more just? What does the search to understand and promote justice entail in our increasingly interconnected world? What principles, practices, and institutions hold the most promise for securing a desirable future? Through reading, writing, research, presentations, and discussion, participants will work together to develop a deeper understanding of a variety of ways these questions can be thoughtfully and effectively addressed.

Great Philosophers
PHRE-520
(W)
Four class periods. Open to Uppers and Seniors. Participants in this upper level course in philosophy will explore a single idea and the questions that arise in its elucidation and application. Topics will change from year to year and may include love, leadership, knowledge, and athletic competition. Important thinkers from a variety of points of view will be consulted.
Advanced Topics in the Study of Religion
PHRE-530
(F-W)

Four class periods. Open to Uppers and Seniors. Students in this course will examine selected topics and themes in the study of religion. Potential areas of investigation within a course may include religion and society, scriptural perspectives, religious rituals, devotional practices, historical influences in religious doctrine, and religious art, music, literature, and poetry.

Fall term—Africana Religions: An Exploration of the Human in Post-Modernity. This course explores the religious beliefs, styles, and rhythms of Africana peoples in order to understand what it means to be human in a postmodern world. “Africana” is a term that refers to people of African descent who live on the African continent and in Europe, the Caribbean, North America, and South America. In this course we will examine Africana peoples’ encounters with systematic attempts to deny their humanity, and the manner in which they have employed religion and spirituality to create critical, and perhaps invaluable, models of human community in an increasingly uncertain world. We will be guided by questions such as: What does it mean to be a self in contexts of cultural violence? Can religious practices serve to resist the effects of dehumanization and/or do they reinforce harmful social divisions? How have Africana religious communities envisioned the just society and are these depictions of justice relevant for us all? Readings include: W.E.B. Du Bois, Zora Neale Hurston, Howard Thurman, Toni Morrison, Charles H. Long, Maya Angelou, Steven Biko, Dianne M. Diakité, Cornel West, and others.

Winter term—Advanced Topics in Asian Religions. (Description forthcoming)

Elective Courses Recently Taught, but Not Offered in 2015–2016

Introduction to Hebrew Bible
PHRE-320

Religion, Literature, and the Arts
PHRE-450

Ethics: Medicine
PHRE-460

Ethics: The Environment
PHRE-470

Philosophy of Sport
PHRE-490

Global Islams
PHRE-535
All three- and four-year students are required to complete PHED-200 by the end of the lower year.

**Physical Education**

**PHED-200**

(F-W-S)

Honors/Pass/Fail. Limit of 15 students per section. Five-class periods. The course is designed to promote lifetime wellness and to raise students’ awareness of the concepts and choices involved. Through the use of the pool, ropes course, fitness center, and other areas of the athletic complex, the course aims to foster individual development along with group success. Weekly discussions are based on readings from the class text and from written assignments. If the course is failed, the student will repeat it, in full or in part, during a subsequent term.
The psychology department offers three elective courses that examine fundamental concepts in the field. Particular emphasis is placed on helping the student explore the interface between psychological knowledge and personal growth. This is accomplished by utilizing teaching strategies that integrate formal academic work with frequent opportunities for student participation and self-exploration.

**Introductory Psychology**
**PSYC-420**
(F)
Four class periods, for Uppers and Seniors. A survey course designed to introduce the student to the complexity and diversity of psychological inquiry. Emphasis is placed on the application of basic psychological principles to individual experience in order to expand awareness of both self and others. In addition, the broader implications of psychological findings for an integrated understanding of human development and behavior are considered. Topics to be covered may include psychoanalytic, behavioral, and humanistic theories of the person; psychosocial, cognitive, moral, and early childhood development; human motivation and personality; social behavior; abnormal behavior; and research techniques in psychology. A combination of objective examinations and individualized writing assignments are utilized to evaluate the student’s learning. (Dr. Lopez-Morales)

**Developmental Psychology**
**PSYC-430**
(S)
Four class periods, for Uppers and Seniors. An examination of human growth and development from infancy through adolescence. The role of early experiences and biological factors in later formation of personality and intellectual and motivational behaviors will be considered. Different theoretical perspectives (psychodynamic, social learning, and biological) of psychological development will be examined as they relate to developmental milestones. Among the theorists to be studied are Piaget, Erikson, Freud, Rogers, and Bandura. The format of the course includes readings, videos, observations at our day care center, and both group and individual projects. (Dr. Alovisetti)

**The Brain and You—A User’s Guide**
**PSYC-490**
(W)
Five class periods. Open to Uppers and Seniors. The human brain is the most sophisticated biological organ ever evolved on Earth and is the source of all human cognitive functions. Have you ever wondered how yours works? How do you use it to enjoy music, for social relationships, or to experience strong emotions? Have you ever asked yourself whether there are differences between the male and female brains or if the capabilities of the human brain are really unique in the animal kingdom? Join us as we search for answers to these questions (and more) by examining the evolution and function of the brain and how this applies to understanding the role of the brain in complex human psychology, including the perception, creation, and performance of music; personality; memory; and other higher intellectual activities. The teaching of the course will involve multiple members of the PA faculty and staff. (Dr. Israel)
The Department of Theatre and Dance offers students diverse opportunities to develop skills in all aspects of performance and production. Although the department houses two distinct disciplines, theatre and dance, they share a mutual goal: to guide students toward an understanding of performance as a form of communication and expression.

The theatre program is designed to educate students in the theory, design, and practice of dramatic expression. Our curriculum is grounded in the study of drama through experiential learning. We produce three faculty-directed productions a year (one per term) through our THDA-920 course. In addition to our academic courses, the theatre program boasts dynamic cocurricular opportunities through DramaLabs, a series of student-directed one-act plays produced every Friday night in our theatre classroom.

Our dance program is comprised of academic, athletic, and extracurricular offerings. Three levels of ballet and modern technique are offered through the athletic program, while choreography and performance opportunities are both curricular and cocurricular. The Andover Dance Group is our primary performing ensemble, consisting of the most dedicated and gifted dancers. Other student-run groups include jazz, hip-hop, and tap groups. To broaden the students’ exposure to the dance world, the department hires guest artists each year ranging from local choreographers to residencies with internationally known choreographers and dancers.

Students are subject to the following visual and performing arts graduation requirement:

• Entering Juniors must earn no fewer than four credits in art, music, and theatre and dance. Students may fulfill two of these four credits by completing any two academic theatre and dance courses.

• Entering Lowers must earn no fewer than three credits in art, music, and theatre and dance. Students may fulfill one of these three credits by completing any academic theatre and dance course.

### Acting I

**THDA-210**  
(F-W-S)  
Four class periods. Open to all classes, this course is designed for students with little or no acting experience. By doing exercises in movement and voice production, reading, improvisation, and scenes, a student who is curious about the theatre may determine whether he or she has ability or interest in acting while learning something of the process of characterization, the major responsibility of the actor. The emphasis is on the variety of acting experiences rather than on a polished final product.

### Lighting

**THDA-320**  
(F-W-S)  
Four class periods. The course will introduce the student to the art of lighting design while also providing an opportunity to observe light in nature, art, stage, screen, and created environments. The course will allow the individual to gain applied practical understanding regarding the color theory of light, the psychology of color and light, and controllable qualities of light. The design process will be utilized as a method of dramatic interpretation. Artistic expression will be achieved through practical use of lighting instruments, laboratory projects, experiments, and school productions when applicable. (Mr. Murray)

### Costuming

**THDA-321**  
(F-W-S)  
Four class periods. An introductory exploration into the areas of costume design and costume construction, this course will highlight primary design elements utilized in costume design for the stage and screen (i.e., line, color, tone, texture, movement, mood composition, balance, and focus). The course will examine historical period silhouette and the art and craft of the stage costume. Practical experience will be given in areas including construction, flat patterning, draping, and fabric manipulation. (Mr. Murray)

### Scene Design

**THDA-325**  
(W)  
Four class periods. This course will introduce the student to the elements that inform the scenic designer’s choices (the theme and mood of a script, lines of action, focus, constraints, whimsey) and discuss methods of formulating cohesive, functional, and effective design for a show. The student will be introduced to many materials and techniques available to a designer for realizing his or her ideas as a physical product. Special attention will be paid to the process of the design concept: collaboration, formulation, presentation,
discussion, evaluation, and reworking. Students will be graded on both design projects and classroom participation. This is a seminar class that relies upon the open and frank exchange of ideas to stimulate creativity. (Mr. Jacob)

■ Theatre Theory and History
THDA-330
(W)
Four class periods. Not open to Juniors. We will focus on the concepts and conventions of theatre in relation to issues of identity; race, class, gender, and religion. Students will examine plays from a political, cultural, and artistic perspective, illuminating a constantly evolving viewpoint regarding the aesthetics of live performance and highlighting the intersection of contemporary theatre and popular culture. This course will focus on a discrete topic each term.

Fall term—Hip-Hop Theatre. Students will engage with music, plays, and other source material in a way that illuminates how these art forms have influenced each other. As they learn about the birth and foundational elements of Hip-Hop, the class will explore the societal issues that inspired the creation of Hip-Hop culture and focus on the connections between the roles of MC as actor/playwright, DJ as director/chorographer and sound designer, graphic artist, set designer, and others. Through close reading, students will examine the language embedded in music and plays, examining lyrics and lines to further consider the societal forces presented in the text and corresponding historical sources and videos. In the process, students will discover the “elasticity” of theatre and analyze a breadth of Hip-Hop theatre artists, varying from solo playwright/performers to large ensemble plays. Students will be encouraged to think of live performance as a launch pad for social activism, popular culture, and political discourse. (Mr. Grimm)

■ Choreographic Elements
THDA-365
(S)
Four class periods. This course examines the aesthetic elements of movement through various dance styles. Students will be led through explorations and formal exercises to learn how to generate and manipulate movement in clear and innovative fashions. Coursework will culminate in a final presentation of original compositions. This class will provide an in-depth study of dance elements and choreographic tools, drawing upon models set forth by Laban, Balanchine, Doris Humphrey, Judson Church, Mark Morris, and Rennie Harris, among others. Ultimately, students will deepen their understanding of movement as a form of communication and expression. This course will require students to rehearse on their own outside of class, as part of the standard four to five hours of homework per week. (Ms. Strong)

Prerequisite: Previous dance experience or permission of the instructor.

■ Stage Craft
THDA-380
(S)
Five class periods. This is a practicum course in which students work on the technical elements for faculty-directed dance and theatre productions being produced by the department in that term. Skills learned will depend on the requirements of the particular show. Some lab hours to be arranged outside of class time.

■ Musical Theatre
THDA-390 or MUSC-390
(W)
Four class periods. Open to any student (no prerequisites). One credit assigned to either Theatre or Music. Musical Theatre is an interdisciplinary and experiential class that will explore both the history and performance elements of American Musical Theatre. Beginning with the 1920s and culminating with present day, students will explore the historical context of a significant musical in a particular decade each week. Students will also perform a number from that musical each week, challenging themselves in the discipline of performance. Over the course of the term, students will gain knowledge of American history through the lens of the performing arts and gain experience in performing in the three elements of musical theatre (song, dance, and spoken word). Public performances will occur throughout the term, including a final project.

■ Public Speaking
THDA-420
(F-W-S)
Four class periods. Not open to Juniors. The course has a dual objective: to learn how to speak easily in front of others, and to learn how to construct a speech and perform the speech in English. Students give prepared speeches on a variety of topics. (Mr. Heelan)
Play Writing  
ENGL-507AA  
(S)  
See description under ENGL-507AA. Note that Play Writing is an English department offering and does not fulfill the Theatre and Dance requirement. (Mr. Heelan)

August Wilson’s View of 1900–1940s: His Pittsburgh, Our America  
THDA-539/1 or ENGL-539AW/1  
One credit assigned in either Theatre or English. This course will use August Wilson’s plays to investigate how our society’s view of race changed over the 20th century. Students will move through Wilson’s plays in chronological order, exploring their characters and themes in both a literary and theatrical sense. Nine of the ten plays, in the America Cycle, are set in the same neighborhood in Pittsburgh. The fall term section will give students an understanding of August Wilson’s fictionalized Pittsburgh, a glimpse into a more historically accurate Pittsburgh and the man as playwright. Students will look for connections between Pittsburgh and other American urban environments; examining how cities have changed during the first half of the 20th century and how those changes correlate to our changing concept of race. This course is open to Seniors; Uppers may take it with permission from department chair. (Mr. Grimm)

August Wilson’s View of the Second Half of the 20th Century  
THDA-539/2 or ENGL-539AW/2  
One credit assigned in either Theatre or English. Like the fall term section, this course will use August Wilson’s plays to investigate how our society’s view of race changed over the 20th century. We will explore the plays that make-up last six decades of the 20th century. This will allow students who took the previous term to build off previous work, while introducing new students to a great playwright. All students will gain a unique perspective of America and theatre in America. This course is for Seniors; Uppers may take it with permission from department chair. (Mr. Grimm)

Andover Dance Group for Credit  
THDA-900H  
(W)  
Five class periods. Not open to Juniors. The Andover Dance Group (ADG) is an auditioned performance group consisting of the most highly trained and dedicated dancers at Phillips Academy. Students in ADG make a commitment to dance for at least two terms a year, rehearsing for faculty-directed shows as an extracurricular. Students dance five to six days a week. Serious dancers may be in the ADG each of their years at the Academy. After one year of performing with the ADG, students may choose to take a year for credit. In addition to rehearsals, students taking ADG for credit will be required to take a weekly dance history seminar that relates the current ADG project to a specific time period, movement, choreographer, or style in dance history. This seminar is a one-term commitment. Students may only take this option once, and it will serve to fulfill a term of their arts requirement. The total time commitment for this group (classes, rehearsals, and seminar) may exceed the standard nine hours per week. (Ms. Wombwell)  
Corequisite: Students in Andover Dance Group are required to take dance as a sport.

Play Production  
THDA-920/1  
THDA-920/2  
THDA-920/3  
Five class periods. By audition only. This course is composed of the performance of a faculty-directed play or musical. Recent choices include Little Shop of Horrors, Twelfth Night, Brighton Beach Memoirs, and One Flew Over the Cuckoo’s Nest. The department’s season will likely include a classical work, a contemporary work, and a musical. The total time required for this course (class time plus homework) may exceed the standard nine hours per week; students may receive both academic and athletic credit.

900-Level Project-Based Courses  
Enrollment is limited and by approval of the department. Students will apply methodologies learned in previous theatre courses to a term-contained project. The focus of this project will be developed by the student(s) with faculty input, and approved by the theatre and dance departments as part of our performance season. The total time required for this course may exceed the standard nine hours per week.
Advanced Practical Theatre Application
THDA-901
Five class periods. Each member of the class will assume a specific role: lead actor, director, stage manager, and playwright. All students are expected to work collaboratively through the creative process. Rehearsal schedules will be determined on a case-by-case basis. This course will culminate in a performance scheduled in conjunction with the department. See introductory notes to 900-level performance-based courses. Only students who have taken the Directing course (THDA-360) will be eligible to direct a 901 project.

Prerequisite: Permission from the department.

Advanced Studies in Dance Performance
THDA-902
Five class periods. Students will assume a specific role as choreographer or dancer. Rehearsal schedules will be determined on a case-by-case basis. Students will actively engage in the creative process through identifying a creative problem, researching supportive material, and assessing and revising their work. Students will collaborate with lighting designers as well as other designers/performers as determined. The course will culminate in a performance scheduled in conjunction with the department. See introductory notes to 900-level performance-based courses.

Prerequisites: THDA-365 or -370, and project approval from the department.

Advanced Studies in Technical Theatre Production
THDA-903
Five class periods. The exact focus of the project will be developed by the student with faculty input, and approved by the theatre department. Examples include designing and creating a set of costumes for a dance show or creating a sound design for a THDA-920 production. Students will be expected to work collaboratively with the director and other designers of the show. The course will culminate in execution of their design in a performance scheduled by the department. See introductory notes to 900-level performance-based courses.

Prerequisites: THDA-320, -321, or -326, and project approval from the department.

Elective Courses Recently Taught, but Not Offered in 2015–2016

- Sound in the Theatre
  THDA-326

- Directing
  THDA-360

- Performance Art: The Creative Self
  THDA-370

- Acting and Directing Workshop
  THDA-510

- Choreography II
  THDA-565

- Junior Show
  THDA-910
World Languages

Andover’s requirement of at least three high school years of an ancient or modern language rests on the firm belief that direct acquaintance, through language, with the culture and people of other lands is a psychological and intellectual resource of inestimable value for each individual, for every country, and for our common world.

The diploma requirement is usually satisfied by successful completion, in one language, of three trimesters at the 300 level. (See individual languages for details.)

To encourage students to consider studying a language that may not have been available to them prior to coming to Andover, the Division of World Languages also will allow students, by petition, to fulfill the requirement by successfully completing a total of three levels in two different languages. This alternative, the two-language path, must be done by successfully completing the first or second level of a language offered by relatively few schools (Chinese, German, Greek, Japanese, or Russian), with the balance done in another language (typically French, Classics, or Spanish).

Placement of new students in all languages is based on their previous school record, on the placement test, on the questionnaires sent to them and their current language teachers in the spring, and, when appropriate, on a personal interview with the language chair at Andover. Details regarding various options and the diploma requirement as applicable to incoming Uppers and Seniors who begin a new language at Andover are available from the Registrar’s Office.

Each of our languages, ancient and modern, may be started appropriately by students of any grade. Most Andover students continue their language study beyond the third year. Some study a second language in addition.

In the case of modern languages, the world language is the language of the classroom. In conversation, in reading, and in writing, the goal is direct communication in the world language rather than communication through translation. At all levels of instruction, attention is focused both on basic language skills and, increasingly, on the literature, history, and various art forms that reveal the people whose languages are being studied.

Students are advised to take the College Board SAT II Subject Test in a world language as late as possible in their course of study, and in no case earlier than the second trimester of the third level.

Chinese

Standard Chinese (a.k.a. Mandarin) boasts the largest number of native speakers of any language in the world and is learned in school by all Chinese people regardless of local dialect. In addition to its burgeoning economy, China is also known for its rich history and culture, and the knowledge of Chinese can open doors to a wide variety of opportunities. Because Chinese words are tonal (varied in pitch) and uninflected (unmodified due to person, tense, number, gender, etc.), and because the script consists of characters rather than an alphabet, the study of Chinese offers a unique learning experience.

All Chinese courses develop listening, speaking, reading, and writing skills (using the simplified script). Intermediate and advanced levels introduce and develop the reading and writing of Chinese using computers. Opportunities are available for students to participate in the five-week study/travel program in China and an academic year program, both run by School Year Abroad (SYA) in Beijing, China.

First-Level Chinese

CHIN-100
(F)
Five class periods. This course is designed for those students who have had little or no previous world language experience. It provides an introduction to spoken and written Chinese, with an emphasis on pronunciation, the Pinyin Romanization system, and the building blocks (radicals) of Chinese characters.

First-Level Chinese

CHIN-110
(F)
Five class periods. This course is designed for those students who have had previous experience in Chinese, but who are not sufficiently prepared for the second-level course. It provides a review of the Pinyin Romanization system and the building blocks (radicals) of Chinese characters, and emphasizes tonal accuracy.
First-Level Chinese  
CHIN-110/5  
(A TWO-TERM COMMITMENT)  
Five class periods. This course, a continuation of CHIN-100/1 and CHIN-110/1 First-Level Chinese, prepares students for CHIN-200 the following year.

Accelerated Chinese Sequence  
CHIN-120/5  
(A TWO-TERM COMMITMENT)  
Five class periods. Students will be recommended by the teacher for this accelerated course at the end of the first trimester of CHIN-100 or CHIN-110. This course moves at a fast pace, and students are expected to do much independent learning outside of class. Successful completion of CHIN-120 allows students to advance to CHIN-220. The CHIN-100, -110, -220, -320 sequence covers three years of Chinese in two years.

Second-Level Chinese  
CHIN-200/0  
(A YEARLONG COMMITMENT)  
Five class periods. This course continues to emphasize proficiency in everyday situations. Students enlarge their inventory of words and phrases while also developing a deeper understanding of the essential features of Chinese grammar.  
Prerequisite: Successful completion of CHIN-110/5 or equivalent.

Accelerated Chinese Sequence  
CHIN-220  
(F)  
Five class periods. CHIN-220 follows CHIN-120 and precedes CHIN-320 as part of an accelerated sequence. Because of the fast pace, each student’s progress will be closely monitored during the fall term to see whether it is in his or her best interest to rejoin CHIN-200 for the remainder of the year or to continue the accelerated sequence in CHIN-320 in the winter and spring. The course focuses on building oral and written proficiency on daily topics with student-centered activities. Texts, supplementary readings, and audio and video materials are used to provide a rich and complete learning experience.  
Prerequisite: Successful completion of CHIN-120/5.

Third-Level Chinese  
CHIN-300/0  
(A YEARLONG COMMITMENT)  
Four class periods. This course provides more emphasis on reading and writing. Students are introduced to longer texts, covering such topics as family life, social issues, and aspects of Chinese culture.

Accelerated Chinese Sequence  
CHIN-320/5  
(A TWO-TERM COMMITMENT)  
Five class periods. This third-level course follows CHIN-220 and continues the accelerated sequence of “three years in two” started in CHIN-120. The course moves at a fast pace and expects students to do thorough preparation and review independently outside of class. Much of the class time is devoted to oral proficiency development on concrete topics that are related to high school student lives and their perspectives. All students are expected to participate actively in class at the individual, small group, and whole class levels. Written proficiency is equally important for this course. Students are expected to practice and improve writing through various tasks, including essay and other types of written assignments.  
Prerequisite: Permission of the department chair.

Fourth-Level Chinese  
CHIN-400/0  
Four class periods. Increased use of authentic materials is employed as more sophisticated aspects of language and culture are explored. In particular, students are exposed to the more formal written style of Chinese, which is prevalent in newspapers, on street signs, etc.  
Prerequisite: Successful completion of CHIN-300 or equivalent.
Accelerated Chinese Sequence
CHIN-420/0
(A YEARLONG COMMITMENT)
Four class periods. The course is designed for intermediate learners who have acquired basic Chinese cultural knowledge and feel comfortable engaging in further exploration of this topic. In addition to continued language acquisition through listening, speaking, reading, and writing, students also will become familiar with Chinese literature, history, and current events.

Prerequisite: Successful completion of CHIN-320 or equivalent.

Advanced Chinese Sequence
CHIN-520/0
(A YEARLONG COMMITMENT)
Four class periods. This intensive course is designed in accordance with the College Board guidelines to prepare students for the AP exam in Chinese. Students refine their communicative abilities in the interpersonal, interpretive, and presentational modes while deepening their understanding of Chinese history and contemporary society.

Prerequisite: Successful completion of CHIN-420 or permission of the department chair.

Advanced Topics in Chinese
CHIN-620/1
CHIN-620/2
CHIN-620/3
Four class periods. This advanced course explores a wide range of modern issues in China within a historical, political, and cultural framework. In addition to assigned readings and class discussions, students also are expected to conduct independent research (using a variety of media), present oral reports, and submit papers on a regular basis.

Prerequisite: Successful completion of CHIN-500 or -520, or permission of the department chair.

Courses for Advanced Heritage Learners

Topics in 20th-Century China for Advanced Heritage Learners
CHIN-641/2
CHIN-641/3
Four class periods. Students keep learning complex sentence structures and improving fluency and accuracy in both colloquial and written formats. Course materials include reading excerpts, newspaper articles, TV programs, and movies that reflect the major events in 20th-century China. Main topics include the 1911 revolution, the founding of PRC, opening and reform policy, family planning policy, educational reforms, and “one country, two systems” policy. Through reading, listening, writing, and discussing the course materials, students will gain a deeper understanding of the development of China in the past century, while fine-tuning their language with enlarged vocabulary and complex sentence patterns both in spoken and written forms.

Prerequisite: Successful completion of CHIN-640 or -642, or permission of the department chair.

Elective Courses Recently Taught, but Not Offered in 2015–2016

Modern Chinese Literature for Advanced Heritage Learners
CHIN-640/1
CHIN-640/2
CHIN-640/3
Through the study of Greek, the Department of Classics offers students a direct entry into Greek literature. The Greek alphabet is easily mastered in the first few class meetings, and students quickly discover that the poetic and expressive qualities of Greek language and literature stimulate the imagination and illuminate the early political and intellectual development of the Mediterranean basin.

### Accelerated Greek Sequence

**CLAS-150/4**

**(A TWO-TERM COMMITMENT)**

Four class periods. The Department of Classics is excited to offer our pilot program of Beginning Attic Greek as part of the Eight Schools Association (ESA) Connected Learning initiative. This course not only will introduce the vocabulary, forms, and syntax of Attic Greek, but also the thoughts, feelings, and actions that characterized Greek culture. When we say “Attic Greek,” we mean the Greek of Periclean Athens, when the civilization was at its apex. This is the language which gave voice to authors like Plato, Aristotle, Sophocles, Euripides, Demosthenes, Thucydides, and many others. Furthermore, you will eventually have the foundation to read authors like Homer, Hesiod, Herodotus, and other Greek writers who wrote in related dialects.

In other words, this course is the gateway to understanding the foundation of western humanist thought from its infancy. We will use a mixture of online modules to provide grammatical and syntactical lessons along with textbook work to supply grammatical practice and readings in authentic Greek. Additionally, we will be using a suite of Web-enhanced tools and applications to connect students at different ESA peer institutions in their endeavor to learn Attic Greek together.

The course will feature project-based and collaborative assessments, using both translation and composition; there also will be some self-directed research projects that can explore student’s individual interests. This yearlong course is open to students of all grades with the permission of the Greek or Classics department chair. For Andover students, the course will satisfy the beginning level of Greek and thus can count toward the student’s language requirement.

### Accelerated Greek Sequence

**CLAS-250**

**(S)**

Five class periods. A continuation of *CLAS-150*. Successful completion prepares students for *CLAS-400/0*.

### Accelerated Greek Sequence

**CLAS-400/0**

**(A YEARLONG COMMITMENT)**

Four class periods. This course introduces students directly to the classical Greek of Periclean Athens through a series of readings that present not only the vocabulary, forms, and syntax of the language, but also the thoughts, feelings, and actions that characterized Greek culture. Though preliminary selections are necessarily simplified, within the first year students are reading excerpts in their original form from the Greek masterpieces, always with the purpose of understanding the spirit of the people who produced them.

**Prerequisite:** *CLAS-250* or corequisite: LATN-300.

### Greek: Homer and Classical Authors

**CLAS-500/0**

**(A YEARLONG COMMITMENT)**

Four class periods. Students will read, in the original Greek, selected works of Homer, and Lysias, Euripides, Herodotus, or Plato.

**Prerequisite:** *CLAS-400/0*
The Epic Tradition
CLAS-551
(F)
Every Epic needs its hero. But what else does it require? A journey, an antagonist, a purpose? In this course, we will examine the tradition of Epic poetry and literature, looking at the conventions and traditions it has instilled into our modern consciousness. This project-based course will draw from texts, ancient and modern, oral and written, literary and cinematic. Although not required, students with experience in Latin or Greek may continue working with ancient texts in the original language. This course is open to all seniors or with permission from the Classics Department chair.

Women in Antiquity
CLAS-552
(W)
The literary woman in antiquity and the actual woman in antiquity are rather different concepts. In classical literature, we can find numerous examples of powerful, erudite, and accomplished women; however, in classical history, these examples are few. In this course, we will look at this variance and try to determine how it came to be, especially in societies whose own deities were often female. We will pay close attention to literary figures such as Helen, Andromache, Medea, Lysistrata, Lucretia, Lesbia, and Dido, and we will examine the life of the actual woman in the classical world in order to see how her experience compares with her literary counterpart. Although not required, students with experience in Latin or Greek may continue working with ancient texts in the original language. This course is open to all seniors or with permission from the Classics Department chair.

Ancient Theatre
CLAS-553
(S)
Ancient theatre produced two enduring genres, tragedy and comedy, which remain with us today. We will explore the cultural history surrounding these two genres, from Greek festivals to Roman novels, and how they have filtered down to us in modernity. Looking at modern corollaries and adaptations will be an important component of this course as we try to identify the threads that connect these ancient dramatic arts to our modern experience. Although not required, students with experience in Latin or Greek may continue working with ancient texts in the original language. This class is open to all seniors or with permission from the Classics Department chair.

Latin
The Department of Classics offers students a direct entry into the traditional Latin literary curriculum while at the same time providing students with an opportunity to develop a more sophisticated historical and international perspective. Whenever possible, traditional language study is supplemented with readings in English that address both ancient and modern cultural concerns.

First-Level Latin
LATN-100/0
(A YEARLONG COMMITMENT)
Five class periods. The purpose of the course is to teach students the basic features of the Latin language and of Roman culture in relation to other cultures, e.g., family life and societal relationships, slavery, travel, sports, life in the big city, entertainment, and education. Students learn the traditional forms and syntax. All six tenses, indicative and passive, are covered, as well as all five declensions of nouns, three declensions of adjectives, and the standard pronouns. There is extensive practice in recognizing endings of nouns, adjectives, pronouns, and verbs, as well as case uses and normal Latin sentence structures, with the goal of mastering basic techniques of accurate translation and comprehension of Latin sentences and stories.

First- and Second-Level Latin, Intensive
LATN-150/0
(A YEARLONG COMMITMENT)
Five class periods. This course covers in one year the essential elements of LATN-100 and LATN-200.
Second-Level Latin
LATN-200/0
(A YEARLONG COMMITMENT)
Five class periods. During the fall, the linguistic and cultural approach of LATN-100 is continued as the class reviews and completes the basic grammar (including participles, subjunctives, and indirect statements) and reads about other aspects of Roman life. In the winter and spring, students read selections from Caesar, Livy, and Ovid.

Third-Level Latin: Livy, Catullus, Cicero, Vergil
LATN-300/0
(A YEARLONG COMMITMENT)
Four class periods. Students begin the fall with a thorough review of the Latin language in conjunction with correlated reading passages. In the latter half of the fall, students read selections from Livy or Cicero. In the winter, students read the lyric love poetry of Catullus and selections from Cicero's speech, Pro Caelio, defending one of Catullus's former friends against charges brought by the woman to whom Catullus wrote his most famous poems. In the spring, students read selections from Book II of Vergil's Aeneid, the story of the Trojan Horse and the destruction of Troy, a heroic backdrop for very human struggles of duty and loyalty among women and men, parents and children, leaders and followers, humans and their gods.

Advanced Courses

Vergil/Caesar
LATN-520/0
(A YEARLONG COMMITMENT)
Five class periods. Students read the entire Aeneid in English and substantial selections of Books I, II, IV, and VI in Latin, examining Vergil's literary form and technique, as well as the philosophical and political dimensions of his age. Students then turn to Latin prose, reading selections from Caesar's Commentaries on the Gallic War. Cicero himself called Caesar the most eloquent of all Romans. His Latin, pure and unadorned, provides an excellent balance to Vergil's tragic style.

Prerequisite: A grade of 5 or higher in LATN-300 or permission of the department.

Advanced Latin Authors
LATN-600/1
LATN-600/2
LATN-600/3
Four class periods that meets three times a week, this is primarily a literature course with works in the original Latin.

Fall term—In the fall, students read Lyric Poetry, beginning with Catullus and continuing with Horace after the midterm. Although their lifetimes overlapped, Catullus flourished during the time of Julius Caesar and the crumbling Roman Republic, whereas Horace wrote his Odes after civil war had established the reign of Augustus, the first emperor of Rome. Beyond appreciating the magnificent and still resonant art of these two famous poets, students will compare the differences in their styles, personae, and philosophies, and discuss how these reflect not just each artist's poetic voice, but the contemporary political regime as well.

Winter term—Students focus on Ancient Rhetoric, beginning with an examination of Platonic vs. Aristotelian ideals of rhetoric, and continuing with a more detailed study of Ciceronian precepts of oratory. While translation and discussion of selections from Cicero's speeches, essays, and letters are the focus of this term's scholarship, students also make connections with modern examples of persuasive technique in the form of advertisements, popular songs, and political speeches.

Spring term—While students in LATN-600 have some choice about the authors and readings for spring term, they will begin with several selections from Ovid's Metamorphoses.

Prerequisite: The prerequisite for any term of LATN-600 is a 5 or above in LATN-520V. An additional prerequisite for the spring term of LATN-600 is a 5 or above in at least one previous term of LATN-600.
French

French is a world language spoken on five continents and in many international organizations, such as the United Nations, UNESCO, and NATO. It is an official language of more than 30 countries, including Belgium, Canada, Côte d’Ivoire, the Democratic Republic of the Congo, Guinea, Haiti, Senegal, and Switzerland. L’Organisation Internationale de la Francophonie has 56 member states. While France is the most visited country in the world and famous for many reasons—including its cultural heritage, beauty, food, and art of living—the importance of French extends far beyond France.

The French Department offers courses at six different levels, from beginning through Advanced Placement and beyond to courses for fluent speakers. At all levels, classes are conducted entirely in French, and in all courses French is taught in cultural contexts. The first two years emphasize basic language structures; the third serves as a transition to advanced courses that offer in-depth study of the literature and civilization of France and other French-speaking areas, especially those in Africa and North America. Each year, the Academy enrolls French-speaking students from abroad who provide important firsthand contact with Francophone cultures. Students may spend a full academic year or a summer in Rennes through the School Year Abroad program. Information on this and other off-campus opportunities can be obtained from the Department of World Languages.

**First-Level French**

**FREN-100**

(F)

Five class periods. This course is designed for those students who have had little or no previous world language experience. The course emphasizes the skills of listening, speaking, reading, and writing in the cultural context of the Francophone world. Assignments are regularly required in the Language Learning Center.

**FREN-110**

(F)

Five class periods. This course is designed for those students who have had previous experience in French, but who are not sufficiently prepared for the second-level course. The course emphasizes listening comprehension and the use of basic conversational patterns of French speech. It includes elementary grammatical and idiomatic structures, as well as appropriate reading material. Assignments are regularly required in the Language Learning Center.

**FREN-110/5**

(A TWO-TERM COMMITMENT)

Five class periods. This course is a continuation of the First-Level French course for students from both FREN-100 and FREN-110 in preparation for FREN-200 the following year.

**Accelerated French Sequence**

**FREN-120/5**

(A TWO-TERM COMMITMENT)

Five class periods. Students will be recommended by the teacher for this accelerated course at the conclusion of the first trimester of FREN-100 or FREN-110. Successful completion of FREN-120 allows students to advance to FREN-220. The FREN-100/110–120–220–320 sequence covers three years of French in two years.

**Second-Level French**

**FREN-200/0**

(A YEARLONG COMMITMENT)

Five class periods. For students who have completed FREN-110, or for new students who qualify through a placement test. Students practice the idiomatic expressions that are most useful in everyday situations. While continuing to develop aural-oral skills, this course involves reading nontechnical French prose and writing simple compositions.

**Accelerated French Sequence**

**FREN-220**

(F)

Five class periods. FREN-220 follows FREN-120 and precedes FREN-320 as part of an accelerated sequence. Because of the rapid pace, each student’s progress will be closely monitored during the fall term.
to see whether it is in his or her best interest to move to FREN-200 for the remainder of the year or to continue the accelerated sequence in FREN-320 in the winter and spring. The course consists of grammar review and acquisition of contemporary vocabulary, along with films and varied texts. (Texts: Cinéphile, Conditto; Le Petit Nicolas, Sempé and Goscinny)

**Third-Level French**
FREN-300/0  
(A YEARLONG COMMITMENT)

Five class periods. This yearlong course develops listening, speaking, reading, and writing skills through a review of grammar and the study of French films and francophone texts. Articles from magazines and newspapers, online resources, and poems and recitations complement this core program. (Text: Le Petit Nicolas, Sempé and Goscinny)

**Accelerated French Sequence**
FREN-320/5  
(A TWO-TERM COMMITMENT)

Five class periods. This third-level course follows FREN-220 and continues the accelerated sequence of “three years in two” started in FREN-110 and FREN-120. The course consists of conversation, a thorough grammar review, and varied texts and films. (Texts: Cinéphiles, Conditto; Les Jeux Sont Faits, Sartre.)

### Advanced Courses

**Inquiry-Based Approaches to the Francophone World**

FREN-400/1
FREN-400/2
FREN-400/3

Four class periods. This course is intended for students who understand, read, and write French well and already speak at a competent level, but would like to develop further conversational skills and acquire the vocabulary and idiomatic expression necessary to be able to discuss major cultural and social issues. Students will use literary texts, film, TV programming, and journalism to provide a basis on which to discuss and understand issues in the francophone world. An inquiry-based learning approach will guide this course each term as students plan and complete a variety of individual and group projects designed to inform themselves, their classmates, and the broader community about the francophone world.

**Prerequisite:** Completion of FREN-300 or equivalent.

**Crossing Cultures**

FREN-401/0  
(A YEARLONG COMMITMENT)

Four class periods. This course includes conversation practice, vocabulary acquisition, grammar exercises, and essay writing in the context of cross-cultural themes in literature and movies. Students consider the question of cultural identity and what it means to have more than one language and more than one culture.

**Fall term—Camus and Algeria.** The class studies what it means to be “the other” in the complex relationship between France and Algeria in Albert Camus’ novel L’Étranger and Gillo Pontecorvo’s movie La Bataille d’Alger.

**Winter term—France in World War II.** The themes of love and war in Le Silence de la Mer and Hiroshima Mon Amour.

**Spring term—Belonging to more than one culture.** Texts include Marjane Satrapi’s Persepolis, an autobiographical French graphic novel set in Iran and France, and Camara Laye’s L’Enfant Noir, a coming of age story set in Guinea.

**Prerequisite:** Completion of FREN-320 or equivalent.

**French Civilization, Literature, and Cinema**

FREN-520/0  
(A YEARLONG COMMITMENT)

Five class periods. Open to students who have completed three terms of fourth-level French and to qualified new students. Students explore works of literature, films, and current events to develop their critical-thinking skills and understand the cultural and social contexts of the French-speaking world. The
course also includes instruction in language skills and in the methodology of expository writing in French. Students usually take the Advanced Placement French Language exam.

The works studied include texts such as *Cyrano de Bergerac*, Rostand; *Candide*, Voltaire; *Béni ou le ParadisPrivé*, Bégag; *Paul et Virginie*, Bernardin de Saint Pierre; and *Mercure*, Nothomb; and films such as *Le Grand Bleu*, Besson; *Les 400 Coups*, Truffaut; *Le Goût des Autres*, Jaoui; *Moi, Tituba, Sorcière*, Maryse Conde; and *Méfie Blanche*, Kim Lefèvre.

### Advanced Topics in French

**FREN-620/1**

**FREN-620/2**

**FREN-620/3**

Four class periods. A seminar course open to students who have completed 500-level French or the equivalent.

**Fall term—Translation and Interpreting.** Do you trust what you read in translation? Should you? What can Google Translate not do? Can you? Find out in this course, designed as a seminar, that will lead you from the comparison of several translations of the same piece, to the theory and methodology of translation, to doing your own translations, from English to French (Version) and French to English (Thème). In this course, students will learn how to judge translations as well as produce them professionally with reliable tools. Students will translate news articles, literature, assembly instructions, popular songs, and U.N. speeches. Students also will attempt to write subtitles for film sequences. In addition, they will participate in actual translation projects, such as translations for the Peabody Museum archives. In the process, we will review French grammar in depth and study real-life idioms.

In the second part of this course, students will learn how to do immediate translation as if they were U.N. interpreters. They will refine their aural and oral skills by translating orally what they are hearing in real time, which is both a fascinating exercise and also a possible career option.

**Prerequisite:** FREN-520 or equivalent.

**Winter term—Popular Culture of the French Antilles.** This course is designed for a wide range of students of French, including native speakers, near-native speakers, and those who are very proficient in the language and wish to widen their scope of knowledge of the Francophone World. It explores the rich popular cultures of the Antilles and focuses primarily on the Francophone Caribbean peoples of Martinique, Guadeloupe, Haiti, and Guiana, as well as their diaspora in Europe and North America. The course is a combination of language, literature excerpts, music, and cinema. It will expose students to the diversity and the rich multicultural history of these peoples, their linguistic heritage and language, their travels, their resilience, their humor, their music (zouk, kompa, calypso, cadence-lypso, kados, bouyon, mereng, etc.), their religious values, their cinema, and their culinary traditions, among other components of cultural identity. The central goal of the course is to present a complete picture of the Caribbean by underlining its rich biodiversity, the multiculturalism of its peoples, its geopolitical importance, and various aspects of life in the Antilles, beyond the limited assumption of being solely vacation destinations. In this course, the peoples of the Caribbean tell us their own stories in different ways with different tools. Authors whose excerpts will be studied include Maryse Condé (Guadeloupe), Dany Laferrière (Haiti), Patrick Chamoiseau (Martinique), and Léon-Gontran Damas (Guiana). Films and documentaries: *Nèg Marron*, *Le Gang des Antillais*, *Rue Cases-Nègres*, *Béguine*, *Case Départ*, *L’avenir est ailleurs*, and *Café au Lait*. (Dr. Odjo)

**Prerequisite:** FREN-520 or equivalent.

**Spring term—Popular Culture of Francophone Africa: Migration, Perceptions, Realities, and Prospects.** We will endeavor to present Africa in unbiased and complete pictures through various lenses, means, and media. We will judiciously explore the works of selected visual artists and performing artists from different francophone countries in West Africa, East Africa, North Africa, and Central Africa. We shall examine how these artists engage in the political conversations and discourses of their respective countries or the continent. Why is Africa perceived the way it is perceived? What can the world do to improve the perceptions about Africa and the standard of living of peoples in the continent? What can Africans do to uplift their continent? What are the responsibilities of the locals? What role does religion play in the status quo of Africa? How are visual arts used to portray Africa? What are the roles of music and dance in African cultures? How is music used to engage in difficult as well as ordinary conversations? What is the place of oral traditions in Africa? What are the hard truths? In a few decades, Africa will become the most populous continent on the planet. What is the impact of that reality on humankind and on the future generation that our students represent? How do they relate to Africa? What do they know about Africa? What do they know about the music and the peoples of Africa? What is the contribution of Africa to the world? How relevant is Africa to them?

**Prerequisite:** French 520 or equivalent.
German

German is spoken in four countries with diverse cultural, political, and economic traditions: Austria, the Federal Republic of Germany, Liechtenstein, and Switzerland. It is also the mother tongue of significant minorities in neighboring countries. Among Europeans, in fact, the approximately 98 million native speakers of German greatly outnumber those of English, French, Italian (58–60 million each), or Spanish (36 million). In business, diplomacy, and tourism, German stands second only to English in Western Europe, and in Eastern Europe it holds first place. It is the language of many of modern history’s most notable writers, scientists, musicians, and philosophers, among them Nietzsche, Beethoven, Bach, Einstein, Freud, Goethe, and Mozart. As English is a Germanic language, the study of German is quite accessible for English speakers. No prior world language experience is necessary to begin the study of German. Many students find the study of German enhances their comprehension of English grammar and gives them a unique insight into the English language.

The department offers a five-year course of study in reading, writing, and speaking German. Digital lab materials, most of which are available to students over the Web, and contemporary films supplement language immersion in the classroom. Students at the second, third, and fourth levels also have the opportunity to participate in the National German Exam as well as the American Association of Teachers of German three-week summer study–home stay program in Germany. Students completing GERM-520 with a strong 5 or a 6 are well prepared for the AP German Exam.

First-Level German
GERM-100/0
(A YEARLONG COMMITMENT)
Five class periods. A yearlong elementary course in speaking, reading, writing, listening comprehension, and culture. No previous experience in German or any other world language is needed to enroll in this course. GERM-100 offers significant daily structure and support in order to facilitate successful language learning. Current text: Deutsch Aktuell 1, 6th edition, digital version supplemented by digital exercises, contemporary films, songs, and adapted short stories.

Accelerated First-Level German
GERM-150/5
(A TWO-TERM COMMITMENT)
Five class periods. Open to students who have completed the fall term of GERM-100 with distinction and who have been recommended by their instructor. Superior work in this course enables students to enter GERM-250 the following fall, followed by GERM-300 in the winter and INTD-300 in the spring terms, thereby completing three years of the study of German in two years. An accelerated course in grammar, speaking, listening comprehension, reading, and culture. Current texts: Deutsch Aktuell 1, 6th edition, digital version; supplemented by video, digital exercises, contemporary films, poems, songs, and adapted short stories.

Second-Level German
GERM-200/0
(A YEARLONG COMMITMENT)
Five class periods. Open to students who have successfully completed GERM-100 or its equivalent. The study of basic grammar, conversation, and reading skills is continued along with the introduction of theme writing. Current text: Deutsch Aktuell 1, 6th edition, digital version; supplemented by digital exercises, contemporary films, songs, and adapted short stories.

Accelerated Second-Level German
GERM-250
(F)
Five class periods. Open to students with strong language-learning skills who have completed GERM-150 or its equivalent with distinction. This accelerated course develops the language skills in speaking, listening comprehension, reading, and writing. Greater emphasis on classroom discussion as well as short essay writing is introduced. Current texts: Vater und Sohn, by E.O. Plauen. Successful completion of this course qualifies students to enter GERM-300/2 in the winter term.

Third-Level German
GERM-300/0
(A YEARLONG COMMITMENT)
Four class periods. Open to students who have successfully completed GERM-200 or GERM-250 or its equivalent. This course develops the language skills in speaking, listening comprehension, reading,
and writing through the introduction of German texts in the original. Greater emphasis on classroom discussion as well as short essay writing is introduced. Current texts: *Vater und Sohn*, by E.O. Plauen; *Emil und die Detektive* by Kästner; and *Biedermann und die Brandstifter*, by Frisch. Digital exercises, skits, contemporary films, and songs supplement the reading.

Spring term—**Berlin: From Imperial Capital to Weltstadt.** The 2015 spring term of GERM-300 is designed to combine the study of the German language with the study of German culture and history. The language classes will focus on the integration of immigrant youth in today's Berlin. The course materials, a 2010 documentary titled Neukölln Unlimited and related newspaper articles and music selections, will provide students with grammar and vocabulary that enrich their understanding of the city's transformation from an imperial capital to a multicultural world city. The history classes will be taught in English and use Berlin as a lens through which to study some of the most transformative moments in German history: the unification in 1871, the First World War, the Weimar Republic, the rise of fascism and the Second World War, the post-war division of Germany, and finally, the reunification of a divided Germany from 1989 to 1990. Readings will combine historical narrative with cultural studies of the art and architecture that form the Berlin landscape in order to understand how the city on the Spree was shaped by shifts in the nature of German national identity.

Successful completion of this course satisfies the diploma requirement in German.

### Fourth-Level German

**GERM-400/1**  
**GERM-400/2**  
**GERM-400/3**  
Five class periods. Open to students who have successfully completed GERM-300 or its equivalent. This course is ideal for students who are looking to review the first three years of grammar as well as broaden vocabulary and improve conversational skills.

**Fall term**—Grammar, film, short stories, concrete poetry

**Winter term**—The play, *Der Besuch der alten Dame*, Dürrenmatt

**Spring term**—Film, current events, Goethe’s poem *Erlkönig*

**Prerequisite:** GERM-300 or permission of the department chair.

### Advanced Fourth-Level German

**GERM-520**  
(F)

Five class periods. The first term of a yearlong sequence, this course is open to students who have successfully completed GERM-300 or its equivalent and whose grammar skills are solid. A guideline is that students should have received an honors grade of 5 or 6 in GERM-300. Vocabulary expansion, increased oral fluency through daily classroom discussion, and written accuracy through paragraph writing and rewriting are central to this course. Selective review of advanced grammar topics is incorporated as needed.

Texts: short stories by Lenz, Gappmeier, and Kästner; film; and concrete poetry

**Prerequisite:** GERM-300 or permission of the department chair.

### Advanced Fourth-Level German

**GERM-520/5**  
(A TWO-TERM COMMITMENT)

Five class periods. This course is a continuation of GERM-520 with increased emphasis on oral proficiency through both informal classroom discussions as well as formal oral assessments. Students continue to review advanced grammar as needed, while being exposed to a wider variety of German works in the original.

**Winter term**—Dürrenmatt’s play *Der Besuch der alten Dame*

**Spring term**—Film, current events, AP preparation, and Goethe’s poem *Erlkönig*

**Prerequisite:** GERM-520 or permission of the department chair.
Advanced Topics in German
GERM-600/1 (NOT OFFERED FALL 2015)
GERM-600/2
GERM-600/3
Four class periods. Open to students who have successfully completed three terms of fourth-level German or GERM-520, or their equivalent, this course varies with the needs of the class. It is usually a seminar in the reading and discussion of German novels and plays. The syllabus is on a two-year rotation.
Materials for 2015–2016: *Die Physiker* (Dürrenmatt), *Das Versprechen* (Dürrenmatt), short stories (Kafka), current events, and film. Offered only if there is sufficient enrollment.

Greek—see Classics

First-Level Japanese
JAPA-100/0
(A YEARLONG COMMITMENT)
Five class periods. Open to all students. Seniors may take the course, but in situations of high enrollment, priority will be given to younger students to fulfill language requirement. Students will learn to express themselves in a variety of conversational situations and to read and write *hiragana*, *katakana*, and about 15 *kanji*, or Chinese characters. Classroom instruction will be based on *Adventures in Japanese, Book 1*, and its corresponding workbook. Students will learn not only the basic grammatical structures but also important elements of Japanese culture.

Second-Level Japanese
JAPA-200/0
(A YEARLONG COMMITMENT)
Five class periods. Open to students who have successfully completed first-level Japanese or its equivalent. A continuation of *JAPA-100*, the instruction will be based on *Adventures in Japanese, Book 2*, and its workbook. In this course there is an increased emphasis on grammar and an additional 150 *kanji*.

Third-Level Japanese
JAPA-300/0
(A YEARLONG COMMITMENT)
Four class periods. Open to students who have successfully completed second-level Japanese or its equivalent. Instruction is given based on *Adventures in Japanese, Book 3*, and its workbook. Emphasis is placed on more conversational practice using the previously learned grammar and more advanced new grammar. Additional emphasis is placed on a significant increase in *kanji* characters. Students are expected to learn an additional 150 *kanji* by the end of the course.

Fourth-Level Japanese
JAPA-400/0
(A YEARLONG COMMITMENT)
Four class periods. Open to students who have successfully completed third-level Japanese or its equivalent. Using the advanced textbook of *Adventures in Japanese, Book 4*, and its workbook, students will learn to express themselves more creatively and to communicate with status-appropriate word usage. Students will learn an additional 150 *kanji* by the end of the course. Emphasis is placed on more advanced Japanese culture and understanding Japanese history and values. Projects include interviews, research, and the final papers.

Japanese Language and Culture
JAPA-520/0
(A YEARLONG COMMITMENT)
Four class periods. This course is designed to be comparable to college/university Japanese courses where students complete approximately 300 hours of college-level classroom instruction. Like corresponding college courses, this course supports students as they develop the productive, receptive, and cultural skills necessary to communicate with native speakers of Japanese. Students' proficiency levels at the end of the course are expected to reach the intermediate-low to intermediate-mid range, as described in the American
Council on the Teaching of Foreign Languages (ACTFL) Proficiency Guidelines. Offered only if there is sufficient enrollment.

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**Latin—see Classics**

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**Russian**

With the demise of the Soviet Union and resulting rapid expansion in East-West activity, the ability to communicate in Russian and knowledge of Russian culture have lost none of their importance. At the beginning of the 21st century, there are more contacts now with Russia and countries of the former Soviet Union than ever before. Not only are American business, science, and technology clamoring for Russian speakers to work in and with the new Russia, but Russian remains the *lingua franca* in all the former Soviet republics, making it extremely important now for national security reasons as well.

No prior world language experience is necessary to begin the study of Russian. Before studying Russian, many consider it strange and difficult, but its alphabet and vocabulary have the same sources as English, and it follows many of the same principles of grammar. Continuous oral, visual, and instructional use quickly make Russian familiar and enjoyable.

The Russian department offers a five-year course of study. This well-established program ensures confident progress in speaking, aural comprehension, reading, and writing. Elementary courses use a unique digital textbook to strengthen grammar skills and improve vocabulary learning. At the upper levels, students continue to use iPads for reading in Russian with built-in dictionaries. Video is used throughout to improve understanding of culture as well as language. Students who have had success in another world language or who have some prior experience with Russian are encouraged to consider taking RUSS-150 after the fall term introduction. It is the policy of the Division of World Languages to use the target language exclusively in the classroom. Students enrolled in all Russian courses are required to have an iPad in lieu of textbooks or workbooks throughout their Andover Russian career.

- **First-Level Contemporary Russian**
  - **RUSS-100/0**
    - (A YEARLONG COMMITMENT)
    - Five class periods. A yearlong elementary course in speaking, listening, reading, and writing. Texts: all-digital textbook (for the iPad—see note in introduction) developed by the department for exclusive use at PA; reference materials.

- **A Short Course in Beginning Russian**
  - **RUSS-130**
    - (S)
    - Four class periods. A term-contained introduction to speaking, reading, and writing Russian, using conversational text materials, this course enables students to feel comfortable with the somewhat different features of a Slavic language. It also gives a sound foundation for continuing courses in Russian language, history, and literature, whether at Andover or in college.

- **Accelerated First-Level Russian**
  - **RUSS-150/5**
    - (A TWO-TERM COMMITMENT)
    - Five class periods. Open to students who have completed the fall term of RUSS-100 with distinction and who have been recommended by their instructor. Superior work in this course enables students to enter RUSS-250 in the fall, followed by RUSS-300 in the winter and spring terms, thereby completing three years of Russian language in two years. An accelerated course in grammar, speaking, listening comprehension, reading, and culture. *This course may require more than the standard four to five hours of homework per week.* Texts: the same as those of RUSS-100 and RUSS-200.

- **Second-Level Contemporary Russian**
  - **RUSS-200/0**
    - (A YEARLONG COMMITMENT)
    - Five class periods. Completion of the elementary course with continued emphasis on active use. Texts: all-digital textbook developed by the department for exclusive use at Phillips Academy; reference materials.

  **Prerequisite:** Successful completion of RUSS-100.
- **Accelerated Second-Level Russian**
  
  **RUSS-250**
  
  (F)
  
  Five class periods. Open to students with strong learning skills who have completed RUSS-150 or its equivalent with distinction. This accelerated course completes the work of RUSS-200 with the addition of intensive grammar review and writing. Successful completion of this course qualifies students to enter RUSS-300 in the winter term. This course may require more than the standard four to five hours of homework per week. Texts: the same as those of RUSS-200 and fall term of RUSS-300.

- **Third-Level Russian**
  
  **RUSS-300/0**
  
  (A YEARLONG COMMITMENT)
  
  Four class periods. Students will improve conversation and composition skills through work with selected 19th- and 20th-century short stories and with video materials. A review of problematic areas of grammar is integrated into the course. Work with video and audio materials constitutes an important component of the course.
  
  **Prerequisite:** Successful completion of RUSS-200 or -250.

- **Fourth-Level Russian**
  
  **RUSS-400/1**
  
  **RUSS-400/2**
  
  **RUSS-400/3**
  
  Four class periods. Expanded work in conversation, listening comprehension, and composition. Extensive use of videos as a source of culture and for conversation and understanding daily speech. Texts will become less modified as the year progresses.
  
  **Prerequisite:** Successful completion of RUSS-300.

- **Advanced Fourth-Level Russian**
  
  **RUSS-520/0**
  
  (A YEARLONG COMMITMENT)
  
  Five class periods. The core materials of the course are similar to those used in Fourth-Level Russian. In addition, however, one of the five weekly meetings will be devoted to preparation for the newly announced Advanced Placement Russian test. The additional material will be selected to reflect the structure of the AP exam. This course may require more than the standard four to five hours of homework per week.
  
  **Prerequisite:** Honors grades in RUSS-300 or permission of the department chair.

- **Advanced Topics in Russian**
  
  **RUSS-600/1**
  
  **RUSS-600/2**
  
  **RUSS-600/3**
  
  Four class periods. A central goal of this course is to provide students with an overview of the major themes and developments in the last two centuries of Russian literature and history. Students will be expected to integrate this knowledge into the base they have acquired in their previous Russian study. The spring term works with a historical docudrama of the Stalinist period in the Soviet State.
  
  **Prerequisite:** Successful completion of RUSS-400/3 or -520.

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**Spanish**

The Department of Spanish offers a six-year course of study. Students who demonstrate unusual ability and interest during the first year are invited to join an accelerated sequence. The language of the classroom is Spanish, and extensive use is made of the Language Learning Center. Students learn to understand, speak, read, and write the language, and also are given a comprehensive introduction to the literature and culture of Spain and Latin America. To enhance a student's language experience, the opportunity to study in Madrid, Spain, is offered through the INESLE program; the opportunity to study in Zaragoza, Spain, is offered through the School Year Abroad (SYA) program. Information is available through the SYA program director. Upon completion of any fourth-level course sequence or combination, a student will be prepared to take the AP language exam.
First-Level Spanish  
SPAN-100  
(F)  
Five class periods. This course is designed for those students who have had no previous world language experience. The course emphasizes listening comprehension and the use of basic conversational patterns of Spanish speech. Elementary grammatical and idiomatic structures are introduced, as well as appropriate reading material. All class work is conducted in Spanish. (Text: Panorama)

First-Level Spanish  
SPAN-110  
(F)  
Five class periods. This course is designed for those students who have had previous experience in Spanish or in another world language. The course emphasizes listening comprehension and the use of basic conversational patterns of Spanish speech. Elementary grammatical and idiomatic structures are introduced, as well as appropriate reading material. All classwork is conducted in Spanish. (Text: Panorama)

First-Level Spanish  
SPAN-110/5  
(A TWO-TERM COMMITMENT)  
Five class periods. This course is a continuation of the first-level Spanish course for those students not enrolled in SPAN-120, Accelerated First-Level Spanish. (Text: Panorama)

Accelerated First-Level Spanish  
SPAN-120/5  
(A TWO-TERM COMMITMENT)  
Five class periods. Especially competent students will be recommended for this accelerated course at the conclusion of SPAN-100/1 or SPAN-110/1. Superior work in SPAN-120 enables recommended students to enter SPAN-220. Panorama serves as the primary text (see above) and is supplemented with reading selections and proficiency-oriented exercises.

Second-Level Spanish  
SPAN-200/0  
(A YEARLONG COMMITMENT)  
Five class periods. Using the Imagina text, this course completes the introduction of grammar begun in the first year. Topics covered are imperfect, imperfect/preterite contrast, subjunctive, perfect tenses, future, and conditional. Extensive thematic vocabulary is integrated into each lesson. There are integrated video and audio programs by which the grammar and vocabulary are reinforced. Significant emphasis is placed on oral practice. Writing and reading skills are further developed. Various Latin American countries are studied.

Accelerated Spanish Sequence  
SPAN-220  
(F)  
Five class periods. SPAN-220 is open only to students who have obtained departmental permission, in most cases after completing SPAN-120. Being part of the accelerated sequence, this course moves at a faster pace than a regular course and the workload is also heavier than usual. Only those students who demonstrate the ability to make progress at a rapid pace will be recommended for the SPAN-320 sequence during the winter and spring terms. Students not recommended for SPAN-320 will rejoin SPAN-200 in order to move at a regular pace more in tune with their abilities. SPAN-220 aims at promoting the student’s ability to communicate in the target language. Intermediate-level grammar is thoroughly reviewed, and there is great emphasis on vocabulary building by means of a variety of readings, including short stories and newspaper articles about current social issues. Students should be ready to engage in conversation on a daily basis, either through group exercises and activities or speaking up on their own. Passive acquisition without oral participation is not encouraged; the student is required to engage in all four skills on a daily basis: listening, reading, speaking, and writing.

Third-Level Spanish  
SPAN-300/0  
(A YEARLONG COMMITMENT)  
Four class periods. During the fall term, students read short stories, testimonies, and poems of diverse Hispanic traditions that explore notions of family, individual and collective identities, and personal and
social relationships. These texts also serve as structural and thematic models to various written exercises and other class activities.

During the winter term, students read articles and debate current controversial subjects. These readings provide students with pertinent vocabulary, as well as with ideas on which they can base their class discussions. Whereas grammar and vocabulary continue to be significant, the main focus is on oral and written expression. In the spring students read *Crónica de una muerte anunciada* (Chronicle of a Death Foretold), a novel written by Gabriel García Márquez. During the spring the object is to have students build their communicative competence and reading comprehension through a series of grammar, vocabulary, and comprehension exercises.

### Accelerated Spanish Sequence

**SPAN-320/5**  
(A TWO-TERM COMMITMENT)

Five class periods. *SPAN-320* is open to students who have obtained permission of the department chair, usually after completing *SPAN-220* in the fall. At the end of this course, most students will be able to enroll in courses at the 400 level, which require considerable knowledge of grammar and vocabulary and the ability to discuss subjects of higher conceptual complexity.

Consequently, there is noticeable change in the length, complexity and range of genres presented, including a play, *Death and the Maiden*, in the spring. Throughout the two terms, students continue to work on their vocabulary and grammar, but the focus is still on communication, so students are expected to be active participants at all times.

**Prerequisite:** Permission of the department chair.

### Advanced Courses

#### Current Events and Multimedia: Approaches to the Hispanic World

- **SPAN-400/1**
- **SPAN-400/2**
- **SPAN-400/3**

Four class periods.

**Fall term**—Spain. Students will refine speaking, writing, and listening skills in Spanish as well as their ability to express current issues through a cultural context. This course will use literary texts, film, TV program series, and journalism to provide a basis on which to discuss and understand issues of modern Spain from the post-Franco era to the present. The course will begin a comprehensive review of basic to advanced grammar structures for students thinking about taking the various national Spanish exams. Class requirements include essays, tests, oral class presentations, and recordings. Daily class participation is essential.

**Winter term**—Mexico. Students will refine their speaking, writing, and listening skills in Spanish as well as their ability to express current issues through a cultural context. This course will use literary texts, film, and art to provide a basis on which to discuss and understand the historical facts that shaped Mexico from the Mexican Revolution to the present. The study of grammar will concentrate on the more challenging structures for English speakers, continuing the grammar review started in fall term *SPAN-400/1*. Daily class participation is essential.

**Spring term**—Hispanic Caribbean. Students will refine their speaking and writing skills through the analysis of poetry and short stories of select Caribbean authors. This course will use Caribbean poetry, short stories, film, music, and journalism to provide a basis on which to discuss and analyze current and historical issues of Puerto Rico, Cuba, and the Dominican Republic. In addition, the course will complete the review of basic to advanced grammar structures started in the fall and winter trimesters. Class requirements include essays and oral class presentations. Daily class participation is essential.

### Introduction to Hispanic Literature

- **SPAN-401/1**
- **SPAN-401/2**
- **SPAN-401/3**

Four class periods. Each trimester the class aims to develop language skills through reading, discussion, oral presentations, and regular writing assignments centered around major writers and texts of the contemporary Hispanic world. This course also emphasizes some of the finer Spanish grammar points and idiomatic expressions.

**Fall term**—Students will be exposed to short stories by contemporary Latin American and Spanish authors as varied as Carlos Fuentes, J.L. Borges, Gabriel García Márquez, among others.
Winter term—In the winter, the focus is on Spanish and Spanish American drama and contemporary Hispanic poetry.

Spring term—Students will read one of the following works: Cien Años de Soledad, Gabriel García Márquez; La casa de los espíritus, Isabel Allende; or Don Quijote de la Mancha, Miguel de Cervantes.

Advanced Spanish Language Colloquium SPAN-500 (F)

Four class periods. This advanced, intensive language course is designed for students of Spanish who have completed their language requirement and seek an immersion experience. Students will continue to sharpen their linguistic competencies in speaking, listening, writing, and reading, and will explore an assortment of authentic media in doing so. These sources will reflect the diversity of registers heard throughout the Spanish-speaking world and will expose students to a wide range of cultural, social, and historical phenomena. Students will have many opportunities to synthesize and analyze these topics through various communicative modes (interpersonal, interpretive, and presentational) in class discussions and written work, in oral/aural exercises, and in presentations delivered to their peers and broader audiences. Students will complete a research project and participate in a colloquium with the greater Spanish-speaking community. Students who take this course will be prepared to take the AP Spanish Language Exam in May. Materials will include a variety of media from the Spanish-speaking world. Students must take this course in order to be considered for SPAN-511 in the spring.

Prerequisites: Completion of SPAN-400, -401, or -520. Students with fewer than three terms of prerequisite courses should seek approval from department chair.

Immersion in Lawrence, The Immigrant City SPAN-510 (W)

Four class periods (Tuesday, periods 3 and 4; Thursday, periods 3 and 3e). Lawrence, Massachusetts, has a long history of immigration, beginning during the Industrial Revolution with the Irish and Italians and continuing into the present with an influx of world cultures, predominantly from Caribbean and other Spanish-speaking American nations. For all intents and purposes, modern Lawrence is a Hispanic city, and our involvement there amounts to nothing less than an immersion in the language and culture of an entire hemisphere. This course exposes students to the culturally rich and vibrant “Immigrant City” and helps them understand, through firsthand accounts from members of the Lawrence community, the realities of living in a bicultural, bilingual world. Texts will include popular fiction, prose, journalism, and other media in Spanish. Students write a weekly journal and collaborate with a Spanish class from Lawrence High School on community partnerships and projects. A weekend-long home stay exchange is offered as an optional additional experience to deepen and strengthen students’ relationships with their peers from Lawrence.

Prerequisites: Completion of SPAN-400, -401, or -500. Students with fewer than three terms of prerequisite courses should seek approval from department chair.

Community Engagement in the City of Lawrence: We, the People SPAN-511 (S)

Four class periods (Tuesday, periods 3 and 4; Thursday, periods 3 and 3e). Students will continue to immerse themselves in the Immigrant City, moving from the theoretical in the winter to the practical in the spring. In conjunction with Lawrence High School, Lawrence Community Works, and Lawrence History Center, students engage in documenting firsthand accounts of life in Lawrence through an ambitious oral history project. Availing themselves of sophisticated digital tools—thanks to a grant from the Abbot Academy Association—students broaden their own perspectives of Hispanic life in the United States, while also leaving a “legacy” of cooperation and mutual respect to tie together the Lawrence and Andover communities.

Prerequisite: SPAN-500 in the fall. Limited enrollment: Preference is given to students who take SPAN-510 in the winter, though students with considerable experience in Lawrence (i.e., on the level of community service project coordinators) may seek departmental approval. Readings and a daily journal are required in addition to the final project.
Understanding Latin America
SPAN-520/1
SPAN-520/2
SPAN-520/3

Four class periods. This course is an introduction to the reality of present-day Latin America through the study of its popular culture. The subject is approached from a diachronic perspective starting in the 20th century, which entails reviewing some of the major historical events, but the spotlight is on those aspects of everyday life that play a role in shaping the values of a community or contribute to creating a sense of identity: language, religious beliefs, traditions, social movements, sports, and cultural production (music, cinema, and television; literature and visual arts).

From a linguistic point of view, students will continue to work on the four skills: reading (texts of various genres), writing (expository writing), speaking (oral presentations and daily conversation practice), and listening (in class and at home—they need to watch a popular telenovela or soap opera).

Prerequisites: Completion of SPAN-400, -401, or -500. Students with fewer than three terms of prerequisite courses should seek approval from department chair.

“Our Americas”: Crossing Borders
SPAN-620/1
SPAN-620/2
SPAN-620/3

Four class periods. In this post-AP course, students will investigate how Latin America as a region is negotiating the challenges of globalization and border crossing by concentrating on three main areas: the United States’ relationship with Latin America, the transatlantic correlation between Latin America and Spain, and the transnational cultural experience of Latinos in the U.S. Students will acquire a basic knowledge of key periods, perspectives, and concepts particular to different disciplines (history, literature, economics, anthropology, art, and political science, among others) and go on to examine a series of issues central not only to Latin Americans, but to “people from the Americas.” The class will have a hands-on multidisciplinary experience by having guest lecturers, by utilizing the resources of the Addison Gallery of American Art and the Peabody Museum, and by organizing possible trips to local museums and/or theatres.

Fall term—Students will study the increasingly strong relationship between Latin America and the United States through trade, immigration, cultural influences, and economic, political, and historical movements. Students will answer the question: What presence and influence has the United States had in Latin America in both the 20th and 21st centuries?

Winter term—We will concentrate on the transatlantic relationship between Spain and Latin America through economic and migratory movements both ways. During the 19th, 20th, and 21st centuries, both regions have experienced an exchange of migratory movements that have shaped the national culture of the recipient countries. Through a variety of cultural products (literary texts, essays, newspapers, blog entries, music, art, films, etc.), we will study the different aspects of the migratory experience—as a celebratory manner, but also as a source of abuse and alienation.

Spring term—In the last series of the Americas, we will concentrate on the current cultural and demographic transformation that the United States is experiencing due to the increasing numbers of immigrants from Latin America (thus the name “Latino”) coming to this country. We will study how Latin American peoples, wherever their point of departure or destination, have had to negotiate from within this transnational cultural experience in the United States. We will learn the different U.S. legal processes that migrants go through in order to enter the country, and we will analyze concepts of identity, bilingualism, migration, diaspora, crossing borders, sense of home and belonging, and otherness. This course is open only to students who have completed a year of Spanish at the SPAN-500, -520, or -521 level, or by permission of the department chair.

Elective Courses Recently Taught, but Not Offered in 2015–2016

Latin American Perspectives
SPAN-521/1
SPAN-521/2
SPAN-521/3
INTERDISCIPLINARY STUDIES & MULTIDISCIPLINARY COURSES

The Epic Tradition
CLAS-551
(F)
Every Epic needs its hero. But what else does it require? A journey, an antagonist, a purpose? In this course, we will examine the tradition of Epic poetry and literature, looking at the conventions and traditions it has instilled into our modern consciousness. This project-based course will draw from texts, ancient and modern, oral and written, literary and cinematic. Although not required, students with experience in Latin or Greek may continue working with ancient texts in the original language. This course is open to all seniors or with permission from the Classics Department chair.

Women in Antiquity
CLAS-552
(W)
The literary woman in antiquity and the actual woman in antiquity are rather different concepts. In classical literature, we can find numerous examples of powerful, erudite, and accomplished women; however, in classical history, these examples are few. In this course, we will look at this variance and try to determine how it came to be, especially in societies whose own deities were often female. We will pay close attention to literary figures such as Helen, Andromache, Medea, Lyssistrata, Lucretia, Lesbia, and Dido, and we will examine the life of the actual woman in the classical world in order to see how her experience compares with her literary counterpart. Although not required, students with experience in Latin or Greek may continue working with ancient texts in the original language. This course is open to all seniors or with permission from the Classics Department chair.

Ancient Theatre
CLAS-553
(S)
Ancient theatre produced two enduring genres, tragedy and comedy, which remain with us today. We will explore the cultural history surrounding these two genres, from Greek festivals to Roman novels, and how they have filtered down to us in modernity. Looking at modern corollaries and adaptations will be an important component of this course as we try to identify the threads that connect these ancient dramatic arts to our modern experience. Although not required, students with experience in Latin or Greek may continue working with ancient texts in the original language. This class is open to all seniors or with permission from the Classics Department chair.

Brazilian Cultural Studies
ENGL-530AB or MUSC-530
(S)
One credit assigned in either English or Music. Four class periods. Brazil is one of the largest countries in the world, with a diverse population, geography, and cultural makeup. Besides being one of the important BRICS countries, the winner of five soccer World Cups, and the home of the famous Girl from Ipanema, it is also an illustration of how the whole can be greater than the sum of its parts. Its combination of African, European, and native cultures has produced some of the most interesting examples of literature and music in the world. In this course, 19th- and 20th-century Brazil will be studied through the lens of literature, film, art, and music being created at those times. Of special interest will be the literary works of Machado de Assis, Jorge Amado, Clarice Lispector, Carlos Drummond de Andrade, and the participants in the 1922 Week of Modern Art movement, as well as the musical traditions of Europe and Africa that merged in Brazil, producing genres such as chorinho, samba, bossa nova, and tropicalismo. Students in this course will also partner with students from Escola SESC, a Brazilian boarding school in Rio de Janeiro, who will visit Andover for one week during the term. (Dr. Vidal and Mr. Cirelli)
Prerequisite: Successful completion of a music course at the 200 level or above or permission of the Music Department chair.

August Wilson’s View of 1900–1940s: His Pittsburgh, Our America
ENGL-539AW/1 or THDA-539/1
One credit assigned in either Theatre or English. This course will use August Wilson’s plays to investigate how our society’s view of race changed over the 20th century. Students will move through Wilson’s plays in chronological order, exploring their characters and themes in both a literary and theatrical sense. Nine of the ten plays, in the America Cycle, are set in the same neighborhood in Pittsburgh. The fall term section will give students an understanding of August Wilson’s fictionalized Pittsburgh, a glimpse into a more
historically accurate Pittsburgh and the man as playwright. Students will look for connections between Pittsburgh and other American urban environments; examining how cities have changed during the first half of the 20th century and how those changes correlate to our changing concept of race. This course is open to Seniors; Uppers may take it with permission from department chair. (Mr. Grimm)

**August Wilson’s View of the Second Half of the 20th Century**
ENGL-539AW/2 or THDA-539/2

One credit assigned in either Theatre or English. Like the fall term section, this course will use August Wilson's plays to investigate how our society's view of race changed over the 20th century. We will explore the plays that make-up last six decades of the 20th century. This will allow students who took the previous term to build off previous work, while introducing new students to a great playwright. All students will gain a unique perspective of America and theatre in America. This course is for Seniors; Uppers may take it with permission from department chair. (Mr. Grimm)

**What Is Critique?**
ENGL-530AA

Like the fall term section, this course will use August Wilson's plays to investigate how our society's view of race changed over the 20th century. We will explore the plays that make-up last six decades of the 20th century. This will allow students who took the previous term to build off previous work, while introducing new students to a great playwright. All students will gain a unique perspective of America and theatre in America. This course is for Seniors; Uppers may take it with permission from department chair. (Mr. Grimm)

**Relativity, Incompleteness, Subjectivity**
ENGL-530CQ

In a 1923 letter, the German critic and philosopher Walter Benjamin wrote, “All human knowledge takes the form of interpretation,” and with that sentence he captured the epoch: the collapse of Objectivity. In this seminar, we will read challenging theorists—Walter Benjamin, Judith Butler, Hans-Georg Gadamer, bell hooks, Immanuel Kant, Karl Marx, Linda Nochlin, and Edward Said, among others—and we will apply their thinking to works by artists and writers such as Judy Baca, Banksy, Kate Chopin, Marcel Duchamp, F. Scott Fitzgerald, James Joyce, Nella Larsen, and Robert Rauschenberg. (Mr. Fox)

**Yoga: Poetry and Practice**
ENGL-534YO

This is an interdisciplinary course in English and athletics. Students must enroll in yoga as their LIFE sport alongside this English elective. The yoga class will meet four times per week for 75 minutes, immediately following the literature seminar. The course is open to experienced yoga students and serious beginners. We will study the philosophy of yoga in traditional texts such as The Yoga Sutras of Patañjali and the Bhagavad Gita, and then trace the path of those ideas through a wide variety of poets across time and continents. Students will write every week. The asana practice will explore ways the language of yoga can
be learned in and through the body, developing strength, flexibility, balance, observation, detachment, and the acceptance of change. (Ms. Tousignant)

### Third-Level German

**GERM-300/0**  
**A YEARLONG COMMITMENT**

Four class periods. Open to students who have successfully completed GERM-200 or GERM-250 or its equivalent. This course develops the language skills in speaking, listening comprehension, reading, and writing through the introduction of German texts in the original. Greater emphasis on classroom discussion as well as short essay writing is introduced. Current texts: *Vater und Sohn*, by E.O. Plauen; *Emil und die Detektive* by Kästner; and *Biedermann und die Brandstifter*, by Frisch. Digital exercises, skits, contemporary films, and songs supplement the reading.

**Spring term—Berlin: From Imperial Capital to Weltstadt.** The 2015 spring term of GERM-300 is designed to combine the study of the German language with the study of German culture and history. The language classes will focus on the integration of immigrant youth in today’s Berlin. The course materials, a 2010 documentary titled Neukölln Unlimited and related newspaper articles and music selections, will provide students with grammar and vocabulary that enrich their understanding of the city’s transformation from an imperial capital to a multicultural world city. The history classes will be taught in English and use Berlin as a lens through which to study some of the most transformative moments in German history: the unification in 1871, the First World War, the Weimar Republic, the rise of fascism and the Second World War, the post-war division of Germany, and finally, the reunification of a divided Germany from 1989 to 1990. Readings will combine historical narrative with cultural studies of the art and architecture that form the Berlin landscape in order to understand how the city on the Spree was shaped by shifts in the nature of German national identity.

Successful completion of this course satisfies the diploma requirement in German.

### Out of Tune: Music and the State in the 20th Century

**HIST-SS485 or MUSC-485**  
**(S)**

One credit assigned in either History or Music. Four class periods. Open to Uppers and Seniors. Can governments control culture? What effect can political oppression have on an artist's work? What does it take to be accepted by a totalitarian state as a legitimate composer? Can you determine the real intentions of a composer working under a repressive regime? While some composers enjoyed approval and even served the purposes of the state, the 20th century is rife with examples of composers whose work was compromised, neglected, even forbidden. The rise of the technology of mass media also aided governments in their use of music. Hitler and Stalin, for example, were both masters of propaganda and were acutely aware of the power of music to influence people.

The course includes an exploration of the work of Richard Strauss, Dmitri Shostakovich, and Aaron Copland, amongst others, as well as the attitudes of the governments under which they worked. The course will end with an examination of the artistic deprivations imposed by the Cultural Revolution in China. Students will also research a case study of their choice. A student who wishes to receive history credit should sign up for HIST-SS485; a student who wishes to receive music credit should sign up for MUSC-485.

**Prerequisite:** Successful completion of a music course at the 200 level or above or permission of the Music Department chair.

### The Brain and You—A User’s Guide

**PSYC-490**  
**(W)**

One credit assigned in either Science or Psychology. Five class periods. Open to Uppers and Seniors. The human brain is the most sophisticated biological organ ever evolved on Earth and is the source of all human cognitive functions. Have you ever wondered how yours works? How do you use it to enjoy music, for social relationships or experience strong emotions? Have you ever asked yourself whether there are differences between the male and female brains or if the capabilities of the human brain are really unique in the animal kingdom? Join us in this interdisciplinary course as we search for answers to these questions (and more) by examining the evolution and function of the brain and how this applies to understanding the role of the brain in complex human psychology, including the perception, creation and performance of music, personality, memory and other higher intellectual activities. The teaching of this course will involve multiple members of the PA faculty and staff. (Dr. Israel)
Musical Theatre
MUSC-390 or THDA-390
(W)
Four class periods. Open to any student (no prerequisites). One credit assigned to either Music or Theatre. Musical Theatre is an interdisciplinary and experiential class that will explore both the history and performance elements of American Musical Theatre. Beginning with the 1920s and culminating with present day, students will explore the historical context of a significant musical in a particular decade each week. Students also will perform a number from that musical each week, challenging themselves in the discipline of performance. Over the course of the term, students will gain knowledge of American history through the lens of the performing arts and gain experience in performing in the three elements of musical theatre (song, dance, and spoken word). Public performances will occur throughout the term, including a final project.

Water and Humanity
SCIE-430
(F)
Five class periods. Open to Seniors and to Uppers who have completed one year of laboratory science. Water and Humanity, an Eight Schools Association (ESA) collaborative course, examines the dynamic and tenuous relationship between water resources and human development. Exploring water from a multidisciplinary, project-driven perspective, students will think critically about the central role water has played and must continue to play in the viability and vitality of all civilizations, as well as the many challenges that people face in sustaining, protecting, and gaining access to usable fresh water. Students will encounter diverse materials, use holistic approaches, and engage in innovative project planning to consider, understand, and propose solutions to complex water issues. Water and Humanity involves working with teachers and students from peer schools that also are ESA members. Using blended methodology involving online videoconferencing and learning, face-to-face conversations and lessons, research and project development, this course will focus on the value of water and on the issues that water scarcity presents within the contexts of such elements as religious belief and practice, the human-water relationship in fine art and architecture, national and imperial infrastructure, and industrial development. Students also will think about the role of water in their own local, regional, and global communities, while researching and proposing their own solutions to complex multidisciplinary water issues.

Bioethics: Humanity in the Post-Genomic Era
SCIE-445
(W)
Five class periods. Open to Uppers and Seniors. This course examines current biological topics that challenge our understanding of humanity and provides a brief introduction to ethics and philosophical anthropology and their roles in setting public policy. We live in a modern age in which major scientific advances are the norm. Bombarded with stories in the news regarding ethical dilemmas pertaining to novel biomedical interventions, it is often difficult for us to make sense of competing arguments without having a basic command of the biological and philosophical issues involved. Questions to be addressed include: What is a stem cell? When does a developing human being first experience sensation? Show evidence of cognitive abilities? Acquire moral status? How does our modern, post-genomic understanding of human biology influence our philosophical understanding of what is to be human? Which biological enhancements are ethical? Which are unethical? To what extent (if at all) should the use of biotechnology be regulated in our society? Historical and current readings will be assigned and lively discussions encouraged. Students will be graded through a variety of assessments, including papers, presentations, journals, and class participation. (Dr. Marshall-Walker)

Prerequisite: One yearlong course in biology and one yearlong course in chemistry.

Darwin’s (R)Evolution
SCIE-475
(F)
Five class periods. Open to Uppers and Seniors. “Let it also be borne in mind how infinitely complex and close-fitting are the mutual relations of all organic beings to each other and to their physical conditions of life; and consequently what infinitely varied diversities of structure might be of use to each being under changing conditions of life.” —Charles Darwin, on The Origin of Species.

With the publication of the Origin of Species in 1859, Charles Darwin changed the world. For the first time, the past and present of all the organisms on Earth were explained without supernatural processes, with important historical connections now made.

We will explore the history of Darwin's ideas and the turbulent revolutions they caused, and we will consider the significance of his ideas today in fields as diverse as history, religion, psychology, philosophy,
literature, and biology. With such a broad reach across the natural sciences, social sciences, and humanities, no wonder the theory of evolution by natural selection has been called the single best idea, ever.

Specific weekly topics may include: Darwin and the Huxley Family; Inherit the Wind and the Teaching of Evolution; Darwin Abused: Charles Murray and The Mismeasure of Man; Eugenics: What is Social Darwinism?; Evolution and Aesthetics; Evolutionary Psychology; Darwin, Schopenhauer, Nietzsche; Conrad and Evolution; Darwin's Drawings; Darwin's Voyages; Darwin's Politics; God and Evolution?; Capitalism and Evolutionary Theory. (Mr. Holley)

Humanities Writing Seminar

INTD-400/1

This course focuses on essay writing of all kinds and in all disciplines, including personal essay, critical essay, persuasive essay, literary critique, narrative, historical essay, etc. Students will work in groups to critique each other's work as well as work closely with the instructors on composing, editing, and revising. Use of the Academy's Writing Center will be a vital part of the class. Course content will include exploring and responding to the intellectual and cultural resources of the campus. This course is open only to one-year Seniors and may not be taken as part of a four-course schedule.

Note: This interdisciplinary course offers an additional opportunity for one-year Seniors to develop writing skills.