

OFFICE OF THE DEAN OF STUDIES

Course of Study

2018–2019



Phillips Academy
ANDOVER

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*PLEASE NOTE: The information that follows is accurate as of this 10/10/18 update.
Phillips Academy reserves the right to make subsequent changes.*

GENERAL INFORMATION

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.

Diploma Requirements

The basic diploma requirement is the satisfactory completion of a four-year secondary school program, with the senior year 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.

To be eligible for a diploma, all students must satisfy the Department of Physical Education's swimming requirement. 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-term course offered by the Department of Philosophy and Religious Studies (usually taken 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 one 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 (combined) in art, music, and theatre and dance, 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 their junior year.
- Entering Lowers must earn no fewer than three credits (combined) in art, music, and theatre and dance, with at least one credit each in art and music.
- Entering Uppers need to pass one term of either art or music at the Academy.

Additional details about the manner in which these requirements are to be fulfilled can be found in the opening descriptions of the departments.

Term 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 their upper and senior years, students must accumulate a minimum of 27 term credits, with a minimum of 12 graded term credits during senior year. Approved Independent Projects are counted as graded courses.

The following table shows a summary of diploma requirements. Additional details about the manner in which these requirements are to be fulfilled can be found in the opening descriptions of the departments.

	4-year student	3-year student	2-year student	1-year student
Art, Music, Theatre & Dance	1 art, 1 music, plus 2 more of art, music, and/or theatre and dance	1 art, 1 music, and 1 more art, music, or theatre and dance	1 art or 1 music	None
English	<i>English 100, 200, and 300</i>	<i>English 200 and 300</i>	<i>English 301</i> and 3 terms at 500-level	3 terms***
World Languages	Completion of 3 terms 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.*	Completion of 3 terms 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.*	Completion of 3 terms of 300-level or 1 term of 400-level or completion of 6 terms of a new world language (following successful student petition)	If student does not have three years of language previously a 3-term sequence
History & Social Science	<i>History 100A and 100B</i> in 9th grade, <i>History 201</i> and <i>202</i> in 10th grade, and <i>History 300</i>	<i>History 201</i> in 10th grade and <i>History 300</i>	<i>History 300**</i>	If no prior credit for U.S. history, then 1 year: <i>History 300</i> or <i>320</i> plus an additional term
Lab Science	Two 3-term lab sciences	Two 3-term lab sciences (including yearlong lab sciences taken at previous high school)	Two 3-term lab sciences (including yearlong lab sciences taken at previous high school)	Two 3-term lab sciences (including yearlong lab sciences taken at previous high school)
Math	Completion of <i>Math 280</i> or <i>340</i>	Completion of <i>Math 280</i> or <i>340</i>	Completion of <i>Math 280</i> or <i>340</i>	Placement at 500-level or higher course or <i>Math 400</i>
Philosophy & Religious Studies	1 term (10th grade unless granted an exception)	1 term	None	None
Physical Education	1 term (10th grade)	1 term (10th grade)	Pass swim test	Pass swim test

*The other language may also be less commonly taught. Students **must** have the division head'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 *English 498* and *499*, and most PGs must take one term of *English 495*.

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 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.

Junior Year

When planning a program of study, students are reminded to include all diploma requirement courses.

Each term a Junior must take five or six courses. A Junior's program typically will include the following courses:

Arts	<i>Introductory Art (ART225)</i> and <i>Introductory Music</i> (by placement) (2 terms) In addition, many Juniors will take one or two additional courses in the arts (art, music, or theatre and dance) or elective courses in other departments.
English	<i>ENG100</i> (3 terms)
History	<i>HSS100A</i> and <i>HSS100B</i> (2 terms)
Mathematics	Enter the sequence by placement of the department and take 3 terms
Science	Most students take <i>BIO100</i> ; students placing in <i>MTH280</i> or higher may wish to consider other sciences. (3 terms)
World Language	Enter the sequence by placement of the department (often at 100-level), and take 3 terms

Most Juniors take six courses two of their three terms, often completing three courses in the arts.

Lower Year

Each term a Lower may take five or six courses. (See the *The Blue Book* for the policy on six-course loads.) Most Loweres take six courses during the term they take Physical Education.

A Lower's program typically will include the following courses:

New Students

Arts	A 300-level art course or a theatre and dance course (1 term) Introductory music, by placement (1 term)
English	<i>ENG200</i> (3 terms)
History	<i>HSS201</i> (1 term)
Mathematics	Enter the sequence by placement of the department (3 terms typically)
Physical Education	<i>PHD200</i> (1 term)
Science	Usually one 3-term lab science
World Language	Enter the sequence by placement of the department (3 terms)

Returning Students

English	<i>ENG200</i> (3 terms)
History	<i>HSS201</i> and <i>HSS202</i> (2 terms)
Mathematics	Continue the sequence (3 terms typically)
Phil/Rel Studies	A 300-level course in philosophy and religious studies (1 term)
Physical Education	<i>PHD200</i> (1 term)
Science	One 3-term lab science
World Language	Continue the sequence (3 terms)

In addition, some Loweres will take additional courses in the arts (art, music, or theatre and dance) or elective courses in other departments. Loweres seeking alternate programs of study (e.g., two languages, two sciences) should consult with the Dean of Studies Office.

Upper Year

During the Upper and Senior years, a student must accumulate a minimum of 27 credits. Each term 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.)

A student wishing to participate in an approved off-campus program during all or part of the Upper year should discuss these plans with their advisor and consult the Dean of Students Office for guidance with their course plan.

An Upper's program will typically include the following courses:

New Students

English	<i>ENG301</i> (3 terms)
History	Usually <i>HSS300</i> . This may be taken senior year. (3 terms)
Mathematics	Enter the sequence by placement of the department (3 terms, typically)
Science or other elective	Art, computer science, history, another mathematics, another language, music, philosophy and religious studies, theatre/dance, or interdisciplinary (3 terms, typically)
World Language	Enter the sequence by placement of the department (3 terms)

New Uppers may consult with our college counseling office prior to arriving on campus for guidance in planning their program of study.

Returning Students

English	<i>ENG300</i> (3 terms)
History	Usually <i>HSS300</i> . This may be taken senior year. (3 terms)
Mathematics	Continue the sequence (3 terms, typically)
Science or other elective	art, computer science, history, another mathematics, another language, music, philosophy and religious studies, theatre/dance, or interdisciplinary (3 terms, typically)
World Language	Continue the sequence (3 terms, typically)

Senior Year

Seniors are expected to take five courses each term. (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 credits. A credit equals one course taken for one term. A Senior must earn a minimum of 12 graded term credits during the senior year. Seniors must have passing term grades for all courses taken during their spring term in order to graduate. 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 typically includes the following courses:

New Students

English	As placed by the department (3 terms)
Mathematics	Enter the sequence by placement of the department (3 terms)
World Language	Enter the sequence by placement of the department if the requirement is not yet satisfied (3 terms)
Other Courses	In addition, new Seniors typically take courses in art, computer science, another English or history, mathematics, music, philosophy and religious studies, science, classics, or theatre/dance

Returning Students

Returning Seniors must be sure to take any remaining courses needed to meet diploma requirements. 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.

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.

Course Numbers

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

- **Level 1** = 100; for courses that introduce a subject (*SPA100*) or that are typically taken by Juniors (*BIO100*, *ENG100*)
- **Level 2** = 200; for courses that are the second level in a sequence (*SPA200*) or courses that are typically taken by Lower or Juniors (*ART225*, *HSS201*)
- **Level 3** = 300; for courses that are the third level in a sequence (*SPA300*), or for courses that are appropriate for Uppers (*ENG300*) or for Juniors, Lower, and Uppers (*PHR300*, *CHM300*), or for courses with assumed prior experience (*ART3XX*)
- **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 or 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 in music or theatre and dance.
The second and third digits, and any appended letters, reflect organization schemes at the departmental level.

Key to Course Designations

The designations T1, T2, and T3 indicate the term during which the course is offered: T1 = Fall; T2 = Winter; T3 = Spring. Carefully check each course description for any other limitations: prerequisites, permission of the instructor or the department chair required, etc.

ART

The visual arts program emphasizes artistic thinking and the development of creative thinking 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.

Diploma Requirements in Art

- 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 junior year.
- New 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.
- New Uppers must take at least one term of 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.

Art Placements

- Students who matriculated as Juniors should take *ART225* by the end of junior year, which qualifies them for any 300-level art elective. Juniors with a strong background in art may seek permission from the department chair to enroll directly in a 300-level art elective chosen in consultation with the chair. Placement in 300-level courses are granted on the basis of a student's previous coursework and a portfolio of recent art.
- Students who matriculated as Lowers should enroll in a 300-level art elective during their lower year to fulfill the diploma requirement.
- Students who matriculated as Uppers can fulfill their diploma requirement in the visual and performing arts by completing a 300-level art elective. Moving directly into 500-level electives requires the permission of the instructor and the department chair. Permission is granted on the basis of a student's previous coursework and a portfolio of recent art.
- Entering Seniors and PGs have no diploma requirement in art. They may take any 300- or 400-level elective (excluding *ART410*, *Photographic Truths and Fictions*) or *ART506* (*Film Photography*). Moving directly into other 500-level electives requires the permission of the instructor and the department chair. Permission is granted on the basis of a student's previous coursework and a portfolio of recent art.
- Entering students considering *ART600* (*Advanced Studio Art*) should check prerequisites or consult with the department chair and their advisor to plan a program that includes at least two art electives beyond the diploma requirement, for a total of three studio art classes. Students who are not able to complete all three studio prerequisites can request permission from the instructor and the department chair to enroll in the class. Permission will be granted on the basis of a student's previous coursework, a portfolio of recent work, and evidence of ability to work independently.

Visual Studies for Juniors

■ Visual Studies

ART225

(T1, T2, T3)

For Juniors. *Visual Studies* focuses on artistic thinking, visual vocabulary, visual literacy, and the relationship of making and thinking. Why do humans create? And how? Projects, discussions, and visits to the Addison Gallery of American Art and Peabody Museum of Archaeology focus students on their own creative work and what they perceive in the world around them. Students use a range of media (such as drawing, collage, photography, video, or clay) to expand their perceptual, conceptual, and technical skills, and develop the visual language needed to communicate their experiences and ideas. Juniors who complete *ART225* are eligible to take any of the 300-level art electives.

300-Level Electives

Students who have successfully completed a 300-level elective are eligible to take other 300-level electives or the corresponding 500-level elective.

■ Architecture I

ART301

(T1, T3)

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 will change from Term 1 to Term 3 and will address architectural design in different contexts so that a student wishing to continue with architecture at the 500-level can work with a variety of design issues. With hands-on sketches, drawings, and models, students will explore the issues of a well-planned 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. Students often find that this class requires more than the usual amount of homework time. Students who complete *ART301* are eligible to take other 300-level art electives or *ART501*. (Mr. Lawson)

Prerequisite: Juniors must have completed *ART225*.

■ **Clay and the Ancestral Pot**

ART302

(T1, T2, T3)

This course explores ceramics from a variety of perspectives, including archaeology, geology, and studio art. As a studio class, students will experiment with a range of hand-building techniques while answering studio assignments. The aesthetics of form and surface will be a principle focus. In addition, this class will investigate clay from the perspective of geology, archaeology, and human evolution. Visits to examine the Peabody Museum of Archaeology's collection will offer historical context and a rich array of objects to frame class discussions and assignments. In Term 1, a field component will take students out into the environment to source and dig their own clay. Students who complete *ART302* are eligible to take other 300-level art electives or *ART502*. (Mr. Zaeder)

Prerequisite: Juniors must have completed *ART225*.

■ **Drawing I: Methods and Materials**

ART304

(T1, T2, T3)

Drawing is fundamentally about learning how to see and how to translate that vision onto paper through a variety of mark-making techniques. Through in-class exercises and formal assignments, students learn the language of drawing and develop skills relating to contour, gesture, and fully rendered compositions. Course concepts include the depiction of three-dimensional form on a two-dimensional plane, use of light and dark contrast, and sighting. Assignments are designed to develop students' skills in drawing representationally from direct observation and to encourage creative and expressive thinking. Students who successfully complete *ART304* are eligible to take other 300-level art electives or *ART504*. (Ms. Trespas)

Prerequisite: Juniors must have completed *ART225*.

■ **Painting I: Paint, Palette, and Process**

ART305

(T1, T3)

Develop skills with the basic elements of painting in acrylics as you explore different approaches to generate ideas for paintings. Learn how dots become complex abstract compositions or how the game of Pictionary prompts surreal spaces. Working from both the imagination and observation, specific projects 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 desire for self-expression. Class critiques and visits to the Addison Gallery of American Art complement the actual painting process. Students who successfully complete *ART305* are eligible to take other 300-level art electives or *ART505*. (Ms. Trespas)

Prerequisite: Juniors must have completed *ART225*.

■ **Printmaking: Beyond the Matrix**

ART307

(T2)

Students develop personal imagery while learning monoprint and relief printmaking techniques. Images are constructed by drawing, painting, or carving surfaces such as plastic or rubber. These are inked and transferred to paper by hand or printing press. Often several impressions will be "pulled" from one printing plate and combined with another print or form. Book Arts, digital printing, installation, and working serially are integrated. A collaborative project, with individualized contributions, allows students to explore theme and team-based creative methods. Opportunities for use of laser- and vinyl cutters in The Nest (the Academy's makerspace) are also availed. This class can be taken more than once. (Ms. Trespas)

Prerequisite: Juniors must have completed *ART225*.

■ **Sculpture: Clay, Plaster, Welded Wire, and Japanese Papermaking**

ART308

(NOT OFFERED IN 2018–2019)

Sculpture is 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 and 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: Juniors must have completed *ART225*.

■ Video I

ART309

(T1, T2, T3)

Students will consider the broad scope of the video medium in daily life as well as its role in art, popular culture, and journalism. Students will shoot and edit their own video works throughout the term. Class time will include viewing and discussing historical film and video work as well as giving feedback on completed student projects. Projects will explore techniques and ideas around basic shooting and editing; montage; found footage; and post-production effects as well as narrative, truth, and fiction. Cameras will be provided by the Polk-Lillard Center. Students who successfully complete *ART309* are eligible to take other 300-level art electives or *ART509*. (Mr. Kelman)

Prerequisite: Juniors must have completed *ART225*.

■ Digital Photography I: Appreciating Light, Color, and Time

ART310

(T1, T2, T3)

In this introductory digital photography course, students will examine the concept of beauty in the environment and how an audience may appreciate the poetic and contemplative experience of a photograph. Small projects each week enable students to exercise a number of the creative controls in good camerawork using DSLR cameras. Students will be guided through a work flow process in the Polk-Lillard Center to adapt to a regular photographic practice. Non-destructive editing, adjustments, retouching, and composite imagery also will be explored as will introductory studio lighting. Students will have the opportunity to edit from each small project to construct small print and digital portfolios by term's end. Loaner DSLR cameras are available through the Polk-Lillard Center, or students may use their personal DSLRs. Students who successfully complete *ART310* are eligible for *ART410*, *ART510*, *ART506*, and other 300-level art electives. (Mr. Membreno-Canales)

Prerequisite: Juniors must have completed *ART225*.

■ Design for Living: Innovate and Fabricate

ART311

(T2)

In this course, students will explore product design by developing a concept and prototypes using 3-D printing, laser-cutting, sewing, and a range of hand modeling techniques. As starting points for projects, students will be looking to nature, a particular need, or a particular product, depending on the assignments. During the term, students will conduct investigations of designs, develop and build prototypes in response to their investigations, conduct more tests, and ultimately produce a final prototype. Class time will include discussions and demonstrations as well as studio time in Benner House (ceramics) and The Nest (the Academy's makerspace). There will be a required evening lab. Due to the iterative nature of design, students should expect to devote more than the usual amount of homework time to their projects. This class can be taken more than once. (Mr. Lawson)

Prerequisite: Juniors must have completed *ART225*.

■ Weaving: When the Paleolithic Meets the Digital Age

ART314

(T3)

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 on back-strap looms made from decommissioned climbing harnesses and carabineers. Students also will design threading drafts (essentially simple coding) for card weaving projects. Floor looms are available for final projects, and Shibori (Japanese tie-dye) dyeing provides a break between weaving projects.

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 in the 1800s 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 of Archaeology and the Addison Gallery of American Art. This class can be taken more than once. (Ms. Zemlin)

Prerequisite: Juniors must have completed *ART225*.

■ Special topics in Video: Dance on Camera

ART319

(T2)

Students will explore the possibilities of dance as a subject for video, and the camera as a tool for choreography. All participants will be encouraged to spend time shooting and editing video as well as moving for the camera. We will view a broad span of historical and contemporary experiments with dance, performance, and video, potentially including the documentary "Paris is Burning" about the 1980s New York voguing scene, the filmed works of John Cage and Merce Cunningham, Jacolby Satterwhite's use of dance and animation, Wim Wenders' film about Pina Bausch, Jennifer Monson's traveling ecological dances, early video-performance art, music videos, viral YouTube dance videos, and more. Students will learn a range of techniques for shooting in different indoor and outdoor environments; we will explore a wide range of approaches to editing including close attention to soundtrack, experiments with post-production effects, and various montage strategies. We may engage with lighting and projected video for live performance as well. This class will be open to beginner, intermediate, and advanced video students. This class will also require some afternoon, evening or weekend time for shooting with appropriate

release time from class when needed to accomplish the video projects and culminate in public screening/performance. (Mr. Kelman and Ms. Wombwell)

Prerequisite: ART225 or equivalent.

■ **The Artist: Media and Meaning**

ART350

(NOT OFFERED IN 2018–2019)

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 and 3-D media, including the synergy between digital technologies and traditional hands-on applications of material such as digital photography, drawing, clay, welded wire, and collage. In class presentations and lectures, examples from art and popular culture will provide context for discussions relevant to personal and cultural topics.

Prerequisite: Juniors must have completed ART225.

400-Level Electives

■ **Visual Culture: Curating the Addison Collection**

ART400

(T1)

This course will focus on the study of American art. A significant part of the course will be spent interacting with the Addison Gallery of American Art staff, current exhibitions, and the gallery's vast collection of images and objects. Students will engage in the curatorial process and, as "curators," will go through the steps of developing and creating a thematic exhibition based on selected artwork from the collection that they will tie in with the history and context of American Art. Students will explore the Addison collection 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 raise questions about the nature of art and exhibitions. (Dr. Sparling Williams, Visiting Scholar in Art History and Assistant Curator at the Addison Gallery of American Art)

Prerequisite: Juniors must have completed ART225.

■ **Photographic Truths and Fictions**

ART410

(NOT OFFERED IN 2018–2019)

ART410 is a term-contained opportunity for students to apply critical thinking and observational skills to the discernment of authenticity in the daily consumption of media imagery and stories. Authenticity will be established based on source, voice, and issues of trust and biases that inform the construction of photographs and their expression as political works of art or as prominent elements in journalistic and commercial media. Class discussions of rhetorical strategies and sessions on the methods of metadata analysis, reverse image search, and cross checking of facts and sources will promote the development of civic online reasoning skills to differentiate fact from fiction and satire from real news. Students will create group and individual multimedia projects that inform citizens' trust of media and its commercial or political messages. Students who complete ART410 are eligible to take ART510 and ART506. (Mr. Membreno-Canales)

Prerequisite: ART310 or permission of the instructor and the department chair.

■ **Art and Mathematics**

ART415 or MTH415 (may be taken as an Art, Math, or Interdisciplinary course; official course number is INT508AM)

(T3)

One credit assigned in Art, Math, or Interdisciplinary. How can mathematicians use art to create proofs and how can artists use math as a basis for concept and imagery? How can these connections help to clarify or develop both mathematical and artistic processes? Students in this class will be using math to generate designs and structures that will function as the starting point in the creation of unique and expressive works of art. Students can expect to complete three to four projects utilizing mathematical topics. The class will explore mathematical areas such as sequences, geometry, number theory, and transformations along with art studio processes such as painting, collage, folding (origami), drawing, and building with welded wire. On-campus field trips will include the Addison Gallery, the Knafel Map Collection, and the Peabody Institute. (Ms. Zemlin and Ms. Buckwalter)

Prerequisite: Open to Lower, Uppers, and Seniors who have completed MTH340. Completion of ART225 or a 300-level art elective is recommended but not required.

■ **Histories of Art**

ART441 (may be taken as an Art or Interdisciplinary course; official course number is INT503HA1)

ART442 (may be taken as an Art or Interdisciplinary course; official course number is INT503HA2)

ART443 (may be taken as an Art or Interdisciplinary course; official course number is INT503HA2)

(T1, T2, T3)

One credit assigned each term in Art or Interdisciplinary. Michelangelo's *David*. A three-second Snapchat. The Rothko Chapel. Video of a police officer shooting Tamir Rice. O'Keeffe's flowers.

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. Particular attention is paid 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 will serve 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 *ART443* also are eligible to join an optional study trip to Europe during Spring Break.

ART441, Term 1—Beginning with art as mimesis—as representation of “reality”—in Greece, Term 1 concludes with the further development of art during the Renaissance in Italy. Along the way, students encounter creators such as Giotto and Leonardo and explore many topics, including the development of organized labor, economics of the Medici Bank, evolution of the social status of some creators from craftsman to artist, devastation caused by the Black Death, gendering of different media (e.g., tapestries versus sculpture), and the power of monarchy and papacy.

ART442, Term 2—Term 2 stretches from the Reformation through Impressionism. 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.

ART443, Term 3—Covering the end of the 19th century to the present day, students in Term 3 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 postmodern 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 ART225 or a 300-level art elective is recommended but not required.*

■ **What Is America? What Is American Art?**

ART465 (May be taken as an Art or Interdisciplinary course; official course number is INT529WA)

(T3)

One credit assigned in either Art or Interdisciplinary. Utilizing the Addison Gallery of American Art's collection, *ART465* students will have the opportunity to learn how aspects of history and culture are portrayed, expressed, and shaped by art and in art collections. This course will guide students through themes in American art from the 19th century to the present and explore the history of the Addison Gallery's collecting practices, beginning with the gallery's founding in 1931. *ART465* will split time between the classroom and the Addison. In the classroom, students will learn about and discuss historical developments in American art. In the galleries, students will hone their skills in visual analysis while applying historical knowledge gained from assigned readings and in-class discussion to deepen their understanding of objects in the Addison's collection. Students are expected to engage deeply with the Addison collection, complete all readings and assignments on time, and work collaboratively with their peers.

Students will walk away from this class with a foundational understanding of major themes in American art and an overview of the Addison's collecting practices over time as well as important and transferable visual literacy skills.

Based on their term-long study of the Addison Gallery's collection and the history of American art, students will be asked to draft an acquisition proposal for their final project in the class. These final projects will be used by the gallery's curatorial team to guide future acquisition considerations. (Dr. Sparling Williams, Visiting Scholar in Art History and Assistant Curator at the Addison Gallery)

Prerequisite: *Open to Lowers, Uppers, and Seniors; completion of ART225 or a 300-level art elective is recommended but not required.*

500-Level Electives

■ Architecture II

ART501

(T1, T3)

ART501 is designed as a continuation of *ART301* for students who wish to develop and further expand their ideas. The sequence of projects throughout Term 1 and Term 3 is designed to allow a student to study a range of architectural issues by addressing different contexts—a natural setting (Term 1) and an urban context (Term 3). After taking *ART501* once, and in consultation with the instructor, students can develop a term-long project that includes research and analysis as well as a developed design that they choose independent of the class assignment. This course also will offer the possibility of developing a multidisciplinary project in coordination with work in another class. *ART501* meets in conjunction with students from *ART301* and can be taken more than once. (Mr. Lawson)

Prerequisite: *ART301*

■ Ceramics II

ART502

(T3)

This course is designed for students who have completed *Clay and The Ancestral Pot (ART302)* 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. This class can be taken more than once. (Mr. Zaeder)

Prerequisite: *ART302*

■ Drawing II: Further Explorations

ART504

(NOT OFFERED IN 2018–2019)

This advanced course builds on the knowledge and skills developed in *Drawing I* while helping students find and express their personal voice through drawing. *ART504* focuses on thematic subjects and continues to stress the balance between observational and perceptual skills and the development of concepts, compositions, and techniques. Proportion, spatial studies, the understanding of color, and the exploration of mixed media will be some of the areas explored. This class can be taken more than once. (Ms. Trespas)

Prerequisite: *ART304*

■ Advanced Drawing and Painting: Inside-Outside

ART505

(T3)

This course builds on the knowledge and skills developed in *Drawing I* and/or *Painting I* while helping students find and express their personal voice through one of—or a combination of—these media. *ART505* focuses on thematic subjects and continues to stress the balance between observational and perceptual skills and the development of concepts, compositions, and techniques. Paraphrasing Henri Matisse, this class will explore “not how to paint things but how to paint the difference between things.” Painting and drawing from both the imagination and observation, students learn ways of working that broaden the definition of what paintings and drawings can be; students may combine traditional methods and materials with collage and mixed media while developing a series of related pieces. Emphasis is placed on cultivating solid technical skills with light, color, and form as well as inventive and challenging approaches to subjects that encourage artistic growth. Critiques and visits to the Addison Gallery of American Art are important components of this course. This class can be taken more than once. (Ms. Trespas)

Prerequisite: *ART304* or *ART305*.

■ Film Photography: Exploring 19th- and 20th-Century Photographic Praxis

ART506

(NOT OFFERED IN 2018–2019)

This is a traditional black and white photographic darkroom laboratory course. Students will meet in George Washington Hall's Photography Darkroom area to explore early 19th- and 20th-century techniques of generating photographic images such as the pinhole, cyanotype, and black and white silver gelatin photographic prints. Film cameras will be provided for students 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 the documentary traditions will further enhance each student's understanding of how a photographer carefully selects and represents their vision of the world. This class can be taken more than once.

Prerequisite: No prerequisite for *Uppers* and *Seniors*; *Juniors* and *Lowers* must have completed *ART310*.

■ **Video II: Special Topics in Video**

ART509

(T3)

This course gives students a chance to more deeply investigate areas of video introduced in *ART309*. In a given term, the course will focus on a particular mode of video making; this focus will change on a rotating basis from Term 1 to Term 2. Topics of term-long focus will include the video essay, documentary/journalism, and animation/experimental video. Students will have the opportunity to pursue their own interests within the given topic. Class time will include viewing historical work in film and video, technical workshops, and feedback sessions on one another's projects. This class may be taken more than once. (Mr. Kelman)

Prerequisite: *ART309*

■ **Photography II: The Advanced Photographic Portfolio**

ART510

(T2, T3)

A companion course to *ART310*, this course will exercise students' working knowledge of DSLR work flow and nondestructive editing. This advanced photography opportunity is designed for students who wish to go deeper in the development and tightly edited execution of a self-motivated thematic photography portfolio. Additionally, there will be demonstrations on creating and printing from digital negatives and some advanced studio lighting work. Editorial guidance in the production of a well-defined project will be provided for print, installation, digital, and/or e-book portfolios. Project work may include case studies; interdisciplinary or small group research topics are encouraged. This class can be taken more than once. (Mr. Membreno-Canales)

Prerequisite: *ART310 and/or ART410*.

■ **Design for Living II**

ART511

(T2)

ART511 is designed as a continuation of *ART311* for students who wish to develop and further expand their ideas. The sequence of projects throughout the term is designed to allow a student to study a range of design issues by addressing different contexts and functions.

Students have the opportunity to develop a term-long project that includes research and analysis as well as a developed design that they choose, independent of the class assignment. This course also will offer the possibility of developing a multidisciplinary component in coordination with work in another class. *ART511* meets in conjunction with students from *ART311* and can be taken more than once. (Mr. Lawson)

Prerequisite: *ART311*

600-Level Elective

ART600 is open to Uppers and Seniors in all art media who have taken at least three art classes and are interested in self-directed projects.

■ **Advanced Studio Art: Self-Directed Studio Projects**

ART600A

ART600B

ART600C

(A YEARLONG COMMITMENT)

ART600 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 in all art media are welcome and will be expected to also consult with instructors in their areas of specialization as needed. The course provides students with opportunities for creative, self-directed, and independent work at an advanced level in a class of similarly advanced and self-motivated students.

Term 1—Students will complete two to three projects in response to broad themes or prompts, and will participate in two, day-long field-trips to regional art museums or art events. Interested students will be guided through the process of assembling portfolios for college, art school, and/or precollege summer program applications.

Term 2—Students audit a 300-level or 500-level studio elective to focus on a specific medium, while also meeting biweekly with the ART500 class for readings, discussions, Addison Gallery events, and one or two field trips to art museums. Students will also develop proposals for their Term 3 projects.

Term 3—Students will complete an independent project that will be part of the *ART600* exhibition in the Gelb Gallery.

All three terms of *ART600* include periodic group and individual critiques, a weekly evening lab, and one or two field trips to regional art galleries. (Ms. Zemlin)

Prerequisite: *Open to Uppers and Seniors who have completed three art courses, or with permission of the department chair and the instructor.*

ENGLISH

The diploma requirements in English are intended to establish competence in writing and reading. All Juniors take *ENG100*, followed by three terms of *ENG200* and then three terms of *ENG300*. Juniors may not take *ENG200*. For new Lowers, this requirement is fulfilled by successful completion of *ENG200* and *ENG300*. New Uppers fulfill their requirement by successful completion of *ENG301* and three terms of English electives. International students who are new Uppers usually begin the sequence with *ENG301*. One-year American students and some one-year international students will begin with *ENG495* for one term, followed by electives in Term 2 and Term 3; these international students must be placed by the chair of the department. The remainder of the one-year international students begin with *ENG498* and *499*, followed by an elective Term 3. 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 to English*

ENG100A

ENG100B

ENG100C

(T1, T2, T3) (THREE-TERM COMMITMENT)

ENG100 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.

ENG100 assents to Helen Vendler's notion that "every good writer was a good reader first." Accordingly, *ENG100* 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, *ENG100* students revel in the beauty, humor, and wisdom of the literature. During the three terms, *ENG100* students read literature of various genres and periods. For their syllabi, teachers turn to a great many authors.

ENG100 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, *ENG100* 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, *ENG100* students do not receive grades during the Term 1. 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 *ENG100* experience. The course prepares our youngest students well for the further challenges of their education at Andover.

■ *Writing to Read, Reading to Write*

ENG200A

ENG200B

ENG200C

(T1, T2, T3) (THREE-TERM COMMITMENT)

ENG200A, Term 1—We begin by focusing 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 Term 1, classes also work deliberately on vocabulary development, clarity, grammar, mechanics, and punctuation.

ENG200B, Term 2—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 Term 1 and reinforcing argument and persuasion as patterns of thought that can guide the writer logically through a discussion of a poem.

ENG200C, Term 3—The focus shifts again to reading and writing about fiction, including the novel. Students continue to write in the modes introduced in Terms 1 and 2 and focus on organizing the essay. Term 3 includes a project involving one of the texts and a research paper, class presentation, or performance.

■ *The Stories of Literature*

ENG300A

ENG300B

ENG300C

(T1, T2, T3) (THREE-TERM COMMITMENT)

Literature tells the stories of people's experiences—their dreams, their desires, their acts, their mistakes. *ENG300* 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**

ENG301A

ENG301B

ENG301C

(T1, T2, T3) (THREE-TERM COMMITMENT)

Tailored to the particular needs of new Uppers, *ENG301* conforms in spirit and essence to *ENG300*, but with more intensive attention to expository writing.

■ **Strangers in a Strange Land**

ENG495

(T1)

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 considered have included: Ken Kesey's *One Flew Over the Cuckoo's Nest*, Joseph Conrad's *Heart of Darkness*, poems by Terrance Hayes and Emily Dickinson, and Tim O'Brien's *The Things They Carried*.

■ **American Studies for International Students**

ENG498

ENG499

(T1, T2)

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)

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 *ENG300*, *301*, *495*, *498*, or *499* as well as to select Uppers who, with the permission of the department chair, may enroll in an elective concurrently with Term 2 and/or Term 3 of *ENG300* or *301*, when space permits.

Writing Courses

■ **Creative Nonfiction**

ENG501CN

(T2)

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—that is, 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 interested in improving their craft, recognizing and amplifying their unique writing voice, and pushing creative boundaries.

ENG501CN, Term 2—Students will explore the art of essay writing by working in a number of rhetorical modes. Possibilities include the personal essay, the analytical essay, the lyric essay, the review, the profile, and the feature. Writing assignments will be frequent and will constitute the bulk of the coursework. Short readings will include models selected from an anthology of contemporary work. (Ms. McQuade)

■ **The Personal Essay**

ENG501PE

(T3)

Where you're from, where you've been, what you've seen, what you know, whom you've met, what you've read, what you wish, who you are—this is the raw material from which students will work to write, edit, and revise a series of personal essays. Readings designed to provide courage for the work and examples of the form are by Brenda Ueland, Roxanne Gay, Alice Walker, Amy Tan, Sherman Alexie, Wang Ping, Junot Díaz, David Rakoff, David Foster Wallace, Malcolm X, Ralph Waldo Emerson, Zora Neal Hurston, Langston Hughes, Jhumpa Lahiri, Terrence Des Pres, Ian Frazier, Edwidge Danticat, John McPhee, Annie Dillard, and Grace Suh. (Ms. Scott)

■ **Writing for Change**

ENG501WT

(T1, T2, T3)

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 *ENG501WT* 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. (Mr. Bernieri)

■ **Creative Writing: Fiction**

ENG505CF

(T1, T2, T3)

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. (Ms. Lane)

■ **Creative Writing: Poetry**

ENG505CP

(T1, T2, T3)

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. (Ms. Lane)

Genre Courses

■ **Theories of Children's Literature**

ENG510CL

(T2)

This course considers the role of the imagination in communicating and effecting cultural change. Students will be asked to apply a variety of critical theory for interpretation and discussion of the literature. Themes explored by this course will include alternative realities, the nature of dreams, the function of the subconscious, and the use of allegory. Probable selections include *The Adventures of Alice in Wonderland* and *Through the Looking Glass*, by Lewis Carroll; *Haroun and the Sea of Stories*, by Salman Rushdie; *The Wind in the Willows*, by Kenneth Grahame; *The Jungle Book*, by Rudyard Kipling; *The Wizard of Oz*, by L. Frank Baum; *The Pied Piper of Hamelin*, by Robert Browning; *The Secret Garden*, by Frances Hodgson Burnett; *A Child's Garden of Verses*, by Robert Louis Stevenson; *The Lion, the Witch and the Wardrobe* and *The Last Battle*, by C.S. Lewis; and *Grimm's Fairy Tales*, *Mother Goose*, writings by Carlos Castaneda, and essays by Bettelheim and Zipes. Possible films include *The Red Balloon* and *The Point*. (Mr. Tortorella)

■ **Gothic Literature: Living in The Tomb**

ENG510GL

(T1)

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; *Dracula*, by Bram Stoker; *The Turn of the Screw*, by Henry James; stories by Poe, Faulkner, Gaskell, Irving, Hawthorne, Gilman, Jackson, Cheever, DeLillo, Carver, and Oates; and poetry by Christina Rossetti, Thomas Gray, William Cowper, Louise Glück, and Sylvia Plath. Possible films include *Affliction*, *The Royal Tenenbaums*, *A Simple Plan*, *Psycho*, and *The Cabinet of Dr. Caligari*. (Mr. Tortorella)

■ **Media Studies**

ENG511MS (may be taken as an English or Interdisciplinary course; official course number is INT530MS1)

ENG512MS (may be taken as an English or Interdisciplinary course; official course number is INT530MS2)

ENG513MS (may be taken as an English or Interdisciplinary course; official course number is INT530MS3)

(T1, T2, T3)

One credit assigned each term in English or Interdisciplinary. Working from the premise that all messages are constructed, we will examine the forces (explicit and subtle) that inform those constructions as well as the ways in which our daily and multiple interactions with various media determine our sense of self, identity, truth, and desire. Students will read a range of media studies theory and then put those theories into practice by examining the language, images, narratives, and truth we encounter in news sources, advertising, television, politics, sports, and other cultural representations. Students will be expected to write every week. Term 1 will focus on the production and consumption of commercial news media, the indeterminate lines between news and entertainment, and the importance of branding and advertising. Terms 2 and 3 will look at contemporary television shows, examining questions of narrative, character, and identity; current critical writing about TV; important aspects of TV production; and thematic treatment of topics such as nostalgia, heroism, or family.

This course does not currently meet requirements for NCAA eligibility.

■ “The World in Pieces”: Poetry and Cinema of the Avant-Garde

ENG511WP

(T3)

We explore the aesthetics and politics of collage and montage in the poetry, manifestos, and cinema of 20th-Century American and European avant-gardes, drawing into conversation experiments in poetic language and consciousness, and early films by Fernand Léger, Man Ray, Luis Buñuel, Joseph Cornell, and others. During the second half of the term, we focus on post-World War II, American avant-garde cinema, in particular, the work of Maya Deren, Kenneth Anger, Marie Menken, and Stan Brakhage. (Mr. Bird)

■ Journalism

ENG514JO

(T1)

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 *Absence of Malice*, *All the President's Men*, *The Year of Living Dangerously*, and *Welcome to Sarajevo*. (Ms. Scott)

■ The Graphic Novel

ENG515GR

(T3)

The graphic novel is an extended comic book with similar subject matter to, and the sophistication of, traditional novels. By its very nature, the graphic novel 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; 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)

■ Mid-Twentieth Century American Poetry

ENG516CP

(T3)

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)

■ Last Acts: Remember Me?

ENG517LA

(T1)

“I got shot,” Tupac Shakur declares at the opening of his posthumous film *Resurrection*, and the viewer asks, “How did he know that was going to happen?” This course begins with some basic questions: How will I be remembered? Can I influence that memory? This is a course that looks at literature and other cultural texts (film, photography, music) produced as a response to those questions, works that the instructor calls “automortography”: a genre that centers on acts of self-representation in the face of death and the mode of reading that such a genre produces. Automortography, then, is not only how someone consciously or unconsciously anticipates and scripts one's death, but also how the audience reads works through the lens of that writer's death, thus touching on the larger question of how we memorialize others (i.e., in museums and memorials). In the course, we will explore a range of texts, from Keats to Tupac, so as to understand these figures, their predicaments and contexts, and why we need and how we use this mode of reading. In taking several diverse cases together, we might ask, “Are they keeping it real, or is this genre a ploy or performance?” Potentially drawing on examples ranging across disciplines, literary figures to consider may include Sylvia Plath, Reinaldo Arenas, Raymond Carver, Charles Bukowski, Jane Kenyon, May Sarton, William Gaddis, Malcolm X, and Mark Twain. (Dr. Kane)

■ **The Novel After Modernism**

ENG521NM

ENG522NM

(T2, T3)

In the middle of the 20th century, writers began to move past both the period and the styles that we still call “modern.” What does it mean for a novel to be past modern? Postmodern? Past postmodern? Can a contemporary novel still be a modern novel? In this course we will study the recent progress of the novel genre. We will read aggressively, studying four or five novels per term.

ENG521NM, Term 2—We will read novels written by U.S. authors.

ENG522NM, Term 3—We will read novels written by international authors. Our novelists may include Russell Banks, Italo Calvino, J.M. Coetzee, Robert Coover, Don DeLillo, Joan Didion, Ralph Ellison, Gabriel García Márquez, Cormac McCarthy, Toni Morrison, Haruki Murakami, Vladimir Nabokov, Joyce Carol Oates, Thomas Pynchon, Philip Roth, José Saramago, and Zadie Smith. (Mr. Domina)

Special Topics Courses

■ **American Identities in African Literature**

ENG521AI

ENG522AI

(T2, T3)

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 Gardener*, *Hotel Rwanda*, and *Sarafina*. (Mr. Nyamwaya)

■ **Feasts and Fools: Revelers and Puritans in Literature and Life**

ENG521FF

ENG522FF

ENG523FF

(T1, T2, T3)

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/neo-classical, 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 semio-logical 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)

■ **Law and Literature**

ENG521LL (may be taken as an English or Interdisciplinary course; official course number is INT504LL1)

ENG522LL (may be taken as an English or Interdisciplinary course; official course number is INT504LL2)

(T1, T2)

One credit assigned each term in English or Interdisciplinary.

ENG521, Term 1—Exploring Narrative. This course explores the role of narration and storytelling in law, politics, and literature. It begins with a study of what narrative is, drawing from readings in literature, philosophy, and psychology. Equipped with a working definition, students will then investigate the narrative form in action across the disciplines of law, politics, and literature. What role does storytelling play in our law and politics? How do the stories of literature impact our understanding of law and politics?

ENG522LL, Term 2—Exploring Metaphor. This course explores the power and role of metaphor in law and literature. Drawing from interdisciplinary sources, students will study competing theories on the nature of metaphor and its particular importance in the disciplines of law and literature. Along the way, students will grapple with two works of literature where the nature of metaphor is on display: Vladimir Nabokov’s enigmatic novel *Pale Fire* and the poems of Wallace Stevens in *The Palm at the End of the Mind*. Some questions we will struggle with include what is the relationship between metaphor, truth, and literal meaning; how do metaphors generate their meanings; and how, if

at all, might metaphors expand or contract our understanding and experience of the law, the world, and ourselves? Student work will consist of the analytical essay, discussion board writings, and some introduction to the practice of legal writing and advocacy.

In both terms, readings will draw from a wide range of disciplines and genres, including legal opinions; cultural, political, and philosophical essays; poems; a novel; and/or a play. (Mr. Calleja)

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

ENG524TS

(T1)

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 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)

■ **Dictatorship and the Artist**

ENG529DA

(T1)

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 America and South America serve as starting points for the course, artists from around the world will be included. (Ms. Curci)

Interdisciplinary Studies

■ **What Is Critique?**

ENG530WC (may be taken as an English or Interdisciplinary course; official course number is INT512WC)

(T1)

One credit assigned in English or Interdisciplinary. 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”)?

To address these questions and others, we will read the works of many challenging theorists, including Walter Benjamin, Judith Butler, Jacques Derrida, Sigmund Freud, Henry Louis Gates, bell hooks, Nanette Salomon, and Kathi Weeks, among others—and we will apply their thinking to various art, film, and fiction. (Mr. Fox)

■ **Youth from Every Quarter**

ENG530YQ (may be taken as an English or Interdisciplinary course; official course number is INT533YQ)

(T2)

One credit assigned in English or Interdisciplinary. Decades before the public education reforms of Horace Mann, Phillips Academy was founded as a school that “shall be ever equally open to Youth, of requisite qualifications, from every quarter.” In this colloquium, we will interrogate the three words often omitted from this statement of egalitarian ideal: “of requisite qualifications.” By developing historical and contemporary understandings of Phillips Academy itself, we will explore issues of effort, merit, and privilege. When the Academy was founded, what constituted qualification? Who determined it, for what purposes, and with what consequences? How have answers to these questions evolved during the last 238 years, and why?

Using multiple methodologies and sources, we will generate our own research and observations about Phillips Academy and focus on varied topics, including: the experiences of various historically marginalized groups at the school; privilege; the school’s role in the abolitionist movement and slave trade; the history of Abbot Academy and its merger with/ acquisition by Phillips Academy; Asian and Asian-Americans and the mythology of the “model minority”; the role of science and technology in fostering inclusion and exclusion, among other topics. (Monday and Wednesday, 7:50–9:20 a.m.)

■ **August Wilson’s View of the 20th Century: His Pittsburgh, Our America**

ENG531AW or THD531 (may be taken as an English, Theatre, or Interdisciplinary course; official course number is INT511AW)

(T1)

One credit assigned in English, Theatre, or Interdisciplinary. This course will use a selection of August Wilson’s plays to investigate how our society’s view of race changed during the 20th century. Students will move through Wilson’s plays in chronological order, focusing on the Aunt Ester plays in the Century Cycle in both a literary and theatrical way. This section will give students a glimpse into Wilson’s fictionalized Pittsburgh and insights into a more historically accurate Pittsburgh and America, as well as the man as a playwright. Students will look for connections between Pittsburgh and other American urban environments, examining how cities changed during the 20th century. This course is open to Seniors; it may be taken by Uppers with permission from the department chair. (Mr. Grimm)

■ **The History and Literature of the Haitian Revolution**

ENG540HR or HSS588 (may be taken as an English, History, or Interdisciplinary course; official course number is INT505HR)

(T2)

One credit assigned in English, History, or Interdisciplinary. Few events have been as transformative and far reaching in effect—yet so untaught and unlearned across the humanities—as the Haitian Revolution, which occurred from 1791 to 1804. This interdisciplinary course will investigate the revolution and its legacy and attempt to address, at least in part, the monumental significance of the only successful large-scale slave rebellion in the Atlantic World. By 1804, the newly independent Haitians, freed by their own hands, had won for themselves a unique inheritance: theirs was a society born of the Age of Revolutions and animated by the Enlightenment-inspired language of liberty, but equally theirs was a society deeply rooted in African and Afro-Caribbean slave culture. In its independence, Haiti became the center of a transnational black diaspora as it defended its existence at a time when the United States and European colonial powers viewed racial slavery as the pillar of their burgeoning capital economies. This elective aims to explore these complicated ideas through a variety of texts, digital archives, fiction and nonfiction, literature, and history. (Ms. Curci and Dr. Jones)

■ **Asian/American Literature and Film**

ENG541AS (may be taken as an English or Interdisciplinary course; official course number is INT514AS1)

ENG542AS (may be taken as an English or Interdisciplinary course; official course number is INT514AS2)

ENG543AS (may be taken as an English or Interdisciplinary course; official course number is INT514AS3)

(T1, T2, T3)

One credit assigned each term in English or Interdisciplinary. This seminar explores the literary, historical, and broader sociocultural development of the complex and ever-expanding body of work that collectively (and not always neatly) contributes to what may be called “Asian/American” literature and film. We will engage with a wide range of written and visual texts, including poetry, fiction, memoir, cinema, and television, as well as with scholarly and other artistic forms of production, in order to fashion an analytical framework, informed perspective, and interpretive approach through which to reread and rethink the culture, politics and history of the United States itself. A related goal is to understand the role of literature and other cultural forms in our nation’s struggles over identity, power, and resources. Focusing on the development and representation of Asian/America, we will unpack the social formation of race and the complexity of racial dynamics in the United States historically and today.

ENG541AS, Term 1 and Term 2—The syllabus includes works by canonical and popular authors, filmmakers, and content creators. To develop and flex our critical tools and skills of reading, viewing, analyzing, and interpreting these written and visual texts, we will learn about and practice applying fundamental concepts, themes, and critical methodologies of the field of Asian/American literary and cultural studies. Our goal in this seminar is to gain wide exposure to the exciting diversity of Asian/American literature, film, and cultural production.

ENG543AS, Term 3—Placing Asian America: Ethnic Enclaves in Literature and Film. This special topics seminar is organized around a broad theme such as Asian/American activism, Asian in the U.S. Literary Imagination, or a specific genre, historical period, or geographic or cultural region (e.g., Viet Nam or Chinatowns). (M. Martin)

Single Author Courses

■ **James Joyce**

ENG531JJ

ENG532JJ

(T2, T3)

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)

■ **John Milton: Poetry and Revolution**

ENG532JM

(T2)

“Give me the liberty,” John Milton declared in his anti-censorship tract *Areopagitica*, “to know, to utter, and to argue freely according to conscience, above all liberties.” Almost 350 years separate Milton’s time from ours, yet the liberty to know, to utter, to argue is still too often subject to official censorship and restraint. Throughout his varied career as poet and polemicist, John Milton championed an increasingly expansive definition of individual political and religious freedom. “The exercise of freedom for Milton was a moral and dynamic right: free citizens must always strive to earn their freedom,” Robert McCrum recently wrote of John Milton’s *Areopagitica* in *The Guardian* series “One Hundred Best Non-Fiction Books of All Time”: “For Milton, it was this ‘struggle’ that bestowed value on the individual’s place in society, a theme that links the ethical position of all his writing, poetry as much as prose.” In this course, we read Milton’s epic, *Paradise Lost*, a selection of his shorter poems, and generous excerpts of his prose as we explore the ways in which this “ethical position” informs his work and how it continues to inform our own definitions of freedom. (Mr. Bird)

■ **Shakespeare**

ENG531SH

ENG532SH

ENG533SH

(T1, T2, T3)

Every term the Department of English offers an elective course on the work of William Shakespeare.

ENG531SH, Term 1—Jane Austen’s Henry Crawford says that Shakespeare’s “thoughts and beauties are so spread abroad that one touches them everywhere.” Perhaps, but to contemplate such thoughts deeply and to appreciate such beauties truly we must read the work of the great poet-playwright ourselves. In this course, we will study three or four of William Shakespeare’s plays as well as a selection of his sonnets. (Mr. Domina)

ENG532SH, Term 2—“What a Change Is Here!” This term we will examine a selection of Shakespeare’s plays alongside modern adaptations, asking what these reimaginings have to teach us about Shakespeare and what Shakespeare has to teach us about our modern world. Possible pairings include: *Romeo and Juliet* with *West Side Story*; *Taming of the Shrew* with *Kiss Me, Kate*; *King Lear* with *Ran*; *Macbeth* with *Throne of Blood*; and *Henry IV* with *My Own Private Idaho*. (Dr. Gardner)

ENG533SH, Term 3—**Shakespeare and the Law.** According to Robert Ferguson in his study “The Bard and the Bench,” Shakespeare has been cited more than 800 times in our court system, including citations from all 37 of Shakespeare’s plays. This course explores Shakespeare and the law through the close reading of three of his plays: *Merchant of Venice*, *Othello*, and *Measure for Measure*. In doing so, students will not only engage with the language of the plays, but also the concepts of justice, equity, and law that are found in them. The reading of the plays will be supplemented with an introduction to some basic legal concepts in contract law as well as an examination of justice and jurisprudence within today’s society. (Mr. Calleja)

■ **Who Do You Think You Are?: An Alice Munro Retrospective**

ENG534AM

(T3)

In 2013, Alice Munro became only the 13th woman to win the Nobel Prize in Literature in more than 100 years. Now called the “best fiction writer working in North America,” Munro is considered a master of the contemporary short story. Under Munro’s care, the short story has been elevated from “practice for novel writing” to a literary form of significant weight and merit. Munro is iconic for fiction that plays with time, for stories of quiet betrayal, private hurt, and commonplace catastrophe. Her work focuses in on psychological realism, with precise attention to detail and the illumination of painful everyday truths. In this course, we will examine Munro’s work across the decades, from 1968’s “Dance of the Happy Shades” to the semiautobiographical pieces that open 2012’s “Dear Life”. Over the course of the term, in addition to reading upwards of 20 of Munro’s stories, we will examine Munro’s swift acceptance by Canadian critics as well as her more recent ascent to recognition among the best writers of the modern era. (Dr. Erdmann)

■ **Yeats and the Irish Tradition**

ENG541YT

(T1)

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.

Poetry: *Selected Poems*, W.B. Yeats; *Opened Ground*, Seamus Heaney; *The Water Horse*, Nuala Ni Dhomhnaill. Fiction: *The Year of the French*, Thomas Flanagan; *Reading in the Dark*, Seamus Deane; *Castle Rackrent*, Maria Edgeworth. Drama: *Selected Plays*, W.B. Yeats; *The Playboy of the Western World* and *Riders to the Sea*, J.M. Synge; *Waiting for Godot*, Samuel Beckett; *Translations*, Brian Friel. Film: *Michael Collins* (Neil Jordan, director), *The Field* (Jim Sheridan, director), *Cal* (Pat O’Connor, director). (Mr. O’Connor)

Writers in Depth

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.

■ *Jane Austen*

ENG537JA

(T1)

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 *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. (Ms. Fulton)

■ *Charles Dickens*

ENG537CD

(T2)

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. (Ms. Fulton)

■ *Virginia Woolf*

ENG537VW

(T3)

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)

Culture Studies

■ *The Sky Is Falling: Magical Realism in Latin American Literature and Beyond*

ENG519MR

(T2)

What if you entered a library with infinite titles, endless corridors, and duplicate copies? What if a speck in the sky turned out to be a ceiling, one that got lower and lower with each passing day? What if your new next-door neighbor seemed remarkably—even eerily—like a future version of yourself? In this course, we will explore the broad umbrella of magical realism, a literary genre in which primarily realistic stories contain some element of magic, as well as varying alternative fictions. Each of our texts will take the recognizable world and add unsolved mysteries, the supernatural, or unexplained phenomena to complicate our understanding of reality, as well as our characters' experiences and emotional states. We will explore how and why authors choose to manipulate reality and examine the effects on our understanding of a character's motive and identity. Using a broad scope of writers and traditions, we will address Sigmund Freud's "uncanny," as well as Dan Chaon's "spooky" and Margaret Atwood's "speculative fiction." In keeping with magical realism's roots, we will begin the term with mid-century Latin American writers such as Jorge Luis Borges and Gabriel Garcia Marquez, and then expand our scope to include Kelly Link, Shirley Jackson, and Jean Rhys, among many others. (Dr. Erdmann)

■ *Gender Theory*

ENG530GT (may be taken as an English or Interdisciplinary or course; official course number is INT513GT)

(T3)

One credit assigned in English or Interdisciplinary.

Foundational Gender Theory. This course introduces students to foundational texts in intersectional gender theory, including key concepts from gender theory as they are understood and used in critical interdisciplinary studies of gender. We will explore how these concepts are taken up from different perspectives to address specific social problems, particularly rape culture, and the implications of these critical approaches for thinking about and acting in the world. It is most important, independent of degree of familiarity and expertise with this body of work, that you come willing and eager to read texts closely, ask and ponder questions, and engage others in the classroom community as peers worthy of your respect, especially in moments of disagreement. Possible authors include Gloria Anzaldúa, Cherríe Moraga, Judith Butler, Michel Foucault, Sigmund Freud, Kate Harding, Melissa Harris Perry, Patricia Hill Collins, Fatema Mernissi, Laura Mulvey, E. Anthony Rotundo, Gayle Rubin, Hortense Spillers, Audre Lorde, and Kimberlé Crenshaw. (Dr. Vidal)

■ **Atomic America: Service Learning**

ENG540AA

(T3)

Term 3 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. Not NCAA Approved. (Dr. Kane)

■ **The History and Literature of the Haitian Revolution**

ENG540HR or HSS588 (may be taken as an English, History, or Interdisciplinary course; official course number is INT504HR)

(T3)

One credit assigned in English, History, or Interdisciplinary. Few events have been as transformative and far reaching in effect—yet so untaught and unlearned across the humanities—as the Haitian Revolution, which occurred from 1791 to 1804. This interdisciplinary course will investigate the revolution and its legacy and attempt to address, at least in part, the monumental significance of the only successful large-scale slave rebellion in the Atlantic World. By 1804, the newly independent Haitians, freed by their own hands, had won for themselves a unique inheritance: theirs was a society born of the Age of Revolutions and animated by the Enlightenment-inspired language of liberty, but equally theirs was a society deeply rooted in African and Afro-Caribbean slave culture. In its independence, Haiti became the center of a transnational black diaspora as it defended its existence at a time when the United States and European colonial powers viewed racial slavery as the pillar of their burgeoning capital economies. This elective aims to explore these complicated ideas through a variety of texts, digital archives, fiction and nonfiction, literature, and history. (Ms. Curci and Dr. Jones)

■ **An Introductory Survey of African American Literature**

ENG541AA (may be taken as an English or Interdisciplinary course; official course number is INT532AA1)

ENG542AA (may be taken as an English or Interdisciplinary course; official course number is INT532AA2)

ENG543AA (may be taken as an English or Interdisciplinary course; official course number is INT532AA3)

(T1, T2, T3)

One credit assigned each term in English or Interdisciplinary. This seminar course offers an overview of African American literature through reading and writing assignments, discussions, student-led seminars, and possible visiting lectures on art, music, and history.

ENG541AA, Term 1—Origins, Icons, and Abominations. The class will focus on the literature from slavery and freedom, including captivity narratives and oral tradition, as well as Reconstruction and Post-Reconstruction literature.

ENG542AA, Term 2—Considering the American Dream. Students read the literature of the Harlem Renaissance and African-American expressions of realism, naturalism, and modernism.

ENG543AA, Term 3—Centralizing and De-centralizing Black Life and Culture. Following an examination of the Black Arts movement, the course will focus on literature, including poetry and drama, since the 1970s. (Dr. Tsemo)

■ **Asian/American Literature and Film**

ENG541AS (may be taken as an English or Interdisciplinary course; official course number is INT514AS1)

ENG542AS (may be taken as an English or Interdisciplinary course; official course number is INT514AS2)

ENG543AS (may be taken as an English or Interdisciplinary course; official course number is INT514AS3)

(T1, T2, T3)

One credit assigned each term in English or Interdisciplinary. This seminar explores the literary, historical, and broader sociocultural development of the complex and ever-expanding body of work that collectively (and not always neatly) contributes to what may be called “Asian/American” literature and film. We will engage with a wide range of written and visual texts, including poetry, fiction, memoir, cinema, and television, as well as with scholarly and other artistic forms of production, in order to fashion an analytical framework, informed perspective, and interpretive approach through which to reread and rethink the culture, politics and history of the United States itself. A related goal is to understand the role of literature and other cultural forms in our nation’s struggles over identity, power, and resources. Focusing on the development and representation of Asian/America, we will unpack the social formation of race and the complexity of racial dynamics in the United States historically and today.

ENG541AS, Term 1 and Term 2—The syllabus includes works by canonical and popular authors, filmmakers, and content creators. To develop and flex our critical tools and skills of reading, viewing, analyzing, and interpreting these written and visual texts, we will learn about and practice applying fundamental concepts, themes, and critical methodologies of the field of Asian/American literary and cultural studies. Our goal in this seminar is to gain wide exposure to the exciting diversity of Asian/American literature, film, and cultural production.

ENG543AS, Term 3—Placing Asian America: Ethnic Enclaves in Literature and Film. This special topics seminar is organized around a broad theme such as Asian/American activism, Asian in the U.S. Literary Imagination, or a specific genre, historical period, or geographic or cultural region (e.g., Viet Nam or Chinatowns). (M. Martin)

■ **The Boom Generation**

ENG541BG

(T3)

The Boom Generation represented one of the most significant and influential eras of Latin American literature—and yet is largely under-represented in discourse concerning the 1960s. In this course, students will explore el boom latinoamericano as one of the most exciting moments in Latin American history, a time during which an exuberant, immensely talented body of writers made their mark on Latin American fiction—and on writers around the world to come. Possible authors to be studied: Elena Poniatowska, Alejandra Pizarnik, Carlos Fuentes, Mario Vargas Llosa, and Gabriel García Márquez as well as the Spanish literary agent who made it all possible, Carmen Balcells. (Ms. Driscoll)

■ **“Crossing the Line”: U.S.-Mexico Border Literature and Contemporary Politics**

ENG541BL

(T1)

What does it mean to live on or near a border, and more importantly, what does it mean to read and write literature about border experiences? In this course, students will explore the U.S.-Mexico border and literature produced “on the line,” what Gloria Anzaldúa describes as “La Frontera.” Students will read works that identify as “border literature” and will be introduced to border studies, discussing themes such as immigration, hybridity, border militarization, and in general, issues concerning U.S.-Mexico border politics. Possible authors to be studied: Yuri Herrera, Cormac McCarthy, Nicholas Mainieri, Cristina Henríquez, Luís Albero Urrea, Emma Pérez, Lucretia Guerrero, Sandra Cisneros, Reyna Grande, and Ana Castillo. (Ms. Driscoll)

■ **Contemporary Native American Literature**

ENG541NA

(T2)

What does it mean to be a Native American writer in the 21st century? In this Senior elective course, students will explore life on and off the Native American reservation in works produced by writers from a wide variety of indigenous communities in the United States. The course will involve navigating issues/topics a propos to Native American studies, such as colonialism and genocide, cultural survival, and political and environmental activism. Possible writers to be studied: Luci Tapahonso, Evelina Zuni Lucero, Sherman Alexie, Paula Gunn Allen, Leslie Marmon Silko, Ramson Lomatewama, Simon Ortiz, nila northSun, Joy Harjo, Gerald Vizenor, Louise Erdrich, Diane Glancy, Winona LaDuke, Anton Treur, Wendy Rose, and Linda Hogan. (Ms. Driscoll)

■ **A Room of Their Own: Women’s Studies and Literature**

ENG541WW (may be taken as an English or Interdisciplinary course; official course number is INT517WW1)

ENG542WW (may be taken as an English or Interdisciplinary course; official course number is INT517WW2)

ENG543WW (may be taken as an English or Interdisciplinary course; official course number is INT517WW3)

(T1, T2, T3)

One credit assigned each term in English or Interdisciplinary.

ENG541WW, Term 1—Masculinities in Feminist Literature In an interview with *The Atlantic* magazine, writer Junot Diaz says, “I think [my character’s] tragedy in a number of places in this book is that he keeps choosing his mask.” Many scholars of gender talk about American masculinity as a “mask,” and as Diaz states, this mask can lead to tragedy: suffering, disconnection, even violence. In this literature course, we will read authors who write toward a feminist view of manhood: one that emphasizes equality of the genders, emotional connection, and healthy relationships. Each writer we will explore puts a masculine character at the center of a novel, short story, or poem that exposes the ways in which gender norms can impede a quest for authenticity, connection, love, and truth. The texts in this course look at themes of friendship and mentorship; identity, race, and class; sexuality; and fatherhood. Together we will consider how these authors can help inform a range of feminist possibilities for men and masculine-identifying people. Authors: Sherman Alexie, Ta-Nehisi Coates, Junot Diaz, Louise Erdrich, Barbara Kingsolver, Yusef Komunyakaa, and others.

ENG542WW and ENG543WW, Term 2 and Term 3—“To be a feminist can feel like being in a different world even when you are seated at the same table,” writes philosopher Sara Ahmed in *Living a Feminist Life*. In this course, our seminar table will center the voices of woman-identified authors working in all genres of literature. These authors could be called “feminist” writers, for their work somehow calls for, or envisions, a world resistant to sexism. Our writers may all identify as women, but they write from vastly different positions in history, society, identity, and politics. So what is “feminist literature,” and what kind of work does it do in the world? Students should prepare to write critically, personally, and creatively both in and out of class. Authors include: Roxane Gay, Marilyn Chin, Toni Morrison, Marge Piercy, Sylvia Plath, Alison Bechdel, Virginia Woolf, Marjane Satrapi, Kate Bornstein, Margery Kempe, Ursula K. LeGuin, Louise Erdrich, and others. (Ms. Staffaroni)

■ **“I See Your True Colors”: Queer Literature**

ENG541QL (may be taken as an English or Interdisciplinary course; official course number is INT519QL1)

(T3)

One credit assigned in English or Interdisciplinary. This course examines poems, plays, and stories that raise key questions about sexuality, gender, identity, and desire. Alongside our core literary texts, we will also consider art, music, and film as well as classic texts in the history and theory of sexuality. Topics may include: gay liberation; AIDS activism; the closet, passing, and coming out; the relationship between feminism and lesbian practice; trans identities and narratives; bisexual erasure; queer communities, spaces, and performance; non-normative

love and affinity; law, medicine, psychoanalysis, and religion; homophobia, transphobia, and heterosexism; mental health; debates around same-sex marriage and assimilation; and the intersections of sexuality with race, class, age, nationality, and ability. (Dr. Gardner)

■ **Lockdown (may be taken as an English or Interdisciplinary course; official course number is INT518LD)**

ENG544LD

(T2)

One credit assigned in English or Interdisciplinary. 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)

Period Studies Courses

■ **Medieval Literature**

ENG546ML

ENG547ML

ENG548ML

(T1, T2, T3)

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.

ENG546ML, Term 1—We 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.

ENG547ML, Term 2—We will focus on the medieval (and post-medieval) dream vision genre. Have you ever fallen asleep over your books? If so, you are practically a medieval poet, because they snoozed on their reading material all the time and even composed volumes of poetry about the experience. Readings will include Geoffrey Chaucer's *Book of Duchess & Parliament of Fowls*, Christine de Pizan's *The Book of the City of Ladies*, and the alliterative poem, *Pearl*. For context, both medieval and modern, we also will read from Dante's *Divine Comedy*, Guillaume de Lorris & Jean de Meun's *Romance of the Rose*, and Freud's *Interpretation of Dreams* and view several films and television episodes.

ENG548ML, Term 3—This term of *Medieval Literature* will concentrate on Geoffrey Chaucer's vibrant, bawdy, edgy, unsettling, funny, and fierce poetry. Chaucer has long been imagined the "father of English literature." Nonetheless, although he is marked as a canonical figure in the history of English letters, we will open ourselves up in Term 3 to the transgressive and unconventional qualities of his works—Chaucer not as icon but iconoclast. Works will include: *Canterbury Tales* (selections) and Paul Strohm's *Chaucer's Tale: 1386 and the Road to Canterbury*. We will read texts in Middle English without translation, which will prove a surprisingly pleasant and entirely doable venture. Class time will be devoted to learning to read and understand these Middle English narratives. (Dr. Har)

■ **Outsiders and Underdogs in American Literature**

ENG548AR

(T1)

This course examines the greatest American literature of the 19th century, with an eye to its massive cast of rascals, loners, misfits, fugitives, dreamers, renegades, and wanderers. We might think of the defiance of Hester Prynne and the roving spirit of Huck Finn; the tenacity of Harriet Jacobs and the resourcefulness of Ruth Hall; the swagger of Whitman and the watchful solitude of Dickinson; the inscrutability of *Bartleby* and the perversity of Poe's oddballs; the determination of Douglass and the calculated disobedience of Thoreau; and the curiosity of Ishmael and the obsession of Captain Ahab. What is particularly "American" about these outsiders and underdogs? Why did these characters figure so large in the 19th-century literary imagination, and what draws us to them still? What captivates us about Whitman's proclamation, "From this hour I ordain myself loos'd of limits and imaginary lines"?

Through analytical writing, creative projects, and discussion with their peers, students will have the opportunity not only to delight in extraordinary uses of language, but also to delve deeply into the big questions: what it means to belong, the allure of escape and exploration, the relationship between the individual and society, the realities of oppression and inequality, the ethical duties of citizenship, the uses and gratifications of art, the journey to self-discovery, and the contours of a good life. (Dr. Gardner)

Elective Courses Recently Taught, but Not Offered in 2018–2019

- *Play Writing*
ENG507PW
- *Cinema Symbiosis*
ENG511CS
- *This Is America: The Wire*
ENG511TW
- *Twentieth Century Drama*
ENG512DR
ENG513DR
- *The Literature of Travel Writing*
ENG518TW
- *Children in Literature: Growing Up in a Changing World*
ENG520CL
- *Gender Roles in Contemporary World Fiction*
ENG520GR
- *Under the Fur: Animals in Literature*
ENG521AL
- *Being, Thinking, Doing*
ENG521BT
- *Arthurian Clatter*
ENG526AC
- *Troubling Literature: Contesting Authority In and Through Literature*
ENG528TL
- *The Storm*
ENG530ST
- *Don Quixote*
ENG539DQ
- *Evil, be though my good: Paradise Lost*
ENG539PL
- *August Wilson's View of the Second Half of the 20th Century*
ENG532AW or THD532
- *Christopher Marlowe: Dissident Poetics*
ENG539CM
- *African Literature*
ENG540AF
- *Postcolonial India: Midnight's Children and India in the 20th/21st Century*
ENG540IN
- *Contemporary Caribbean Literature*
ENG543CC
- *Race and Comparative American Literatures*
ENG543CL
- *Steal This Course!*
ENG544ZZ
- *Modernisms*
ENG546MO
- *John Donne and 17th-Century English Poetry*
ENG547JD
- *The Internet in Print*
ENG549DD

HISTORY AND SOCIAL SCIENCE

The study of history and the social sciences provides certain kinds of knowledge, skills, and understanding fundamental to a liberal arts 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 successfully complete seven terms of departmental study. *HSS100A*, *HSS100B*, *HSS201*, and *HSS202* are four terms in total. The additional three terms of U.S. history complete the department's requirement. Students entering as 10th-graders must successfully complete four terms of departmental study: one term of *HSS201* taken in 10th grade and three terms of U.S. history. Students entering as 11th-graders must successfully complete three terms of U.S. history as described above or, if given credit by the department chair for a U.S. history course taken previously, three terms of other courses in the department. Students entering as 12th-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 10th grade, for which the department ordinarily does not grant credit. For one-year international students, the diploma requirement is the completion of three terms of history, starting with *HSS320*. 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 December) or a year (begin the following September). It should be noted that there is no requirement that students begin U.S. history during their upper year—those with passionate interests in other areas may find it advantageous to wait until senior year. However, barring strong alternative interests, it is recommended that students take U.S. history in their upper 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 Term 2 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 *HSS300* or *HSS310* 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.

Notes for Students and Advisors

The Department of History and Social Science places great value on teacher continuity and works with the scheduling office to ensure that, as often as possible, students in the 100 and 300 sequence retain the same instructor. The *HSS201* and *HSS202* courses, however, are not a continuous sequence. They are term-contained courses. *Returning Lowerers who will take HSS201 and HSS202 should not expect to have the same instructor in both classes.*

In the past, students have applied for independent projects (IPs) when they have desired to do advanced work in history or social science not covered by our elective program. *We now ask that students interested in advanced work in this department enroll in HSS600 in Term 2 instead of applying for an IP.*

■ World History

HSS100A

HSS100B

(TWO-TERM SEQUENCE; *HSS100A* AND *HSS100B* CAN BE TAKEN T1 & T2, T2 & T3, OR T1 & T3)

HSS100A, Exploring Global Antiquity, 600 B.C.E.–600 C.E.—For Juniors. *Exploring Global Antiquity* investigates the creative and disparate ways in which communities across the globe developed, organized themselves, and responded to crucial social, political, and economic obstacles. This course asks students to examine particular stories in detail, whether it be the Persian challenge to Greek city states, the great temple construction of the Mayans, the consolidation of the Han Empire in China, or the striking emergence of Christianity in the Mediterranean basin. Students will practice and improve the skills essential to the study of history and social science: think objectively; read and evaluate primary sources and secondary sources; annotate efficiently and organize notes; write with clarity and concision; integrate evidence effectively 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.

HSS100B, Consolidating Powers and Expanding Connections, 600 C.E.–1400 C.E.—For Juniors. In *Consolidating Powers and Expanding Connections*, students examine the continuity and development of the Chinese state, the impact of increased economic productive capacity, and the implications of expanding and intensifying networks of communication and exchange that linked people across continents and seas, enabling incredible journeys and facilitating the exchange of customs, goods, ideas, beliefs, technologies, and germs—with far-reaching consequences. The development and spread of the Islamic faith and the expansion of the Mongol Empire are two lenses through which these increasing connections are examined. Equally important to understanding these stories is the continued development of the skills begun in Term 1 of the sequence.

■ **World History**

HSS201

(T1, T2)

Exchange, Resistance, and Adaptation, 1400 C.E.–1800 C.E.—For Lower. This course will examine how economic, intellectual, and social change developed as a dialogue between peoples of the world from 1400 to 1800. By examining primary and secondary sources from multiple perspectives, students will work to contextualize local experiences within global transformations and will be encouraged to understand historical change as a dynamic process. Areas of study will include economies of silver, the Atlantic slave trade, gunpowder empires, and religious reform and transformation.

■ **World History**

HSS202

(T2, T3)

For Lower. Instructors choose to teach one of the following courses. Each is a different topic with different content, but designed to develop the same skills.

Revolutions—What is a revolution? What is the difference between change and revolution? What motivates people to risk their lives or engage in violence to bring about political and social change? What factors contribute to successful revolutions? This course will explore these questions by studying the histories of three distinct revolutions: the Haitian Revolution in the late 18th century, the Russian Revolution in the early 20th century, and the long battle to end South African Apartheid throughout much of the 20th century. With an emphasis on building analytical and critical writing skills, we will analyze the causes and patterns of change that take place in culture, social structure, politics, and the economy.

Cities—In 1800, only 3 percent of the world’s population lived in cities. In 2008, the world’s population was evenly split between urban and rural areas. By 2050, almost two-thirds of the world’s population will live in cities. Historically, people migrated to cities in search of jobs and opportunity, and cities often proved to be spaces of growth and industry. Although places of cultural and social exchange, cities also fostered stark inequalities. As such, cities are contradictory spaces, enabling innovation and collaboration, but at times limiting, confining, and excluding groups of people. With an emphasis on building analytical and critical writing skills, we will study the rise and growth of cities, asking how space and power has been negotiated and contested, how urbanization has affected the rural, and how we have shaped cities—and they have shaped us.

Required Sequence in United States History

■ **The United States**

HSS300A

HSS300B

HSS300C

(THREE-TERM COMMITMENT)

(T1, T2, T3)

For Uppers and Seniors. This course completes the department’s diploma requirements. The sequence emphasizes three goals: knowledge of a narrative of American history; the acquisition of skills by daily exercises in reading, note-taking, and writing; and in-depth study of organizing themes.

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**

HSS320A

HSS320B

(TWO-TERM COMMITMENT)

(T1, T2)

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 *HSS300* or, in rare cases, with the permission of the department chair. These courses may be taken for a term only, but students may choose to remain in two-term or yearlong elective sequences.

■ **Senior Research and Writing Seminar**

HSS495

(T1)

For one-year students. This course emphasizes the skills needed to successfully complete Andover's upper-level history electives. It will share with other humanities classes an interest in how language and evidence are used—and misused—to make arguments. Our primary focus will be learning how to research and write persuasive essays and papers, and we will benefit from frequent visits and access to the campus's Oliver Wendell Holmes Library. This course is organized around a series of contemporary themes: the duties and obligations of citizens in the 21st century, global poverty, human rights, and war and peace. (Mr. Fritz)

■ **Economics I: Microeconomics and the Developing World**

HSS501

(T1, T2)

In *HSS501* students 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. Students completing this course are eligible to enroll in *HSS502* and/or *HSS503*.

Term 1—Limited to Seniors. Coupled with *HSS502* in Term 2, the Term 1 course will prepare students to take both the macroeconomics and microeconomics AP exams.

Term 2—Preference to Seniors. Students enrolling in *HSS501* in Term 2 will be prepared to take the macroeconomics AP exam.

■ **Economics II: Macroeconomics and the Global Consumer**

HSS502

(T2, T3)

HSS502 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.

Prerequisite: *Successful completion of HSS501.*

■ **Economics Research Colloquium**

HSS503

(T3)

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 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 HSS501.*

■ **Comparative Government**

HSS505

(T2)

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. (Mr. Fritz)

■ **Women’s, Gender, and Sexuality Studies**

HSS509 (may be taken as a History or Interdisciplinary course; official course number is INT521WG)

(T3)

One credit assigned in History or Interdisciplinary. 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)

■ **African Postcolonialism through Film**

HSS517

(NOT OFFERED IN 2018–2019)

This course will introduce students to a variety of African postcolonial histories and will use film as a lens to analyze, explain, and provide different views on the cultural, political, and economic legacy of colonialism in the 20th and 21st centuries. In each specific historical case, students will explore essential questions such as: What did colonialism look like? How was independence achieved? What were/are the repercussions for the colonizer and the colonized? Film will be used to help answer these questions and to help students better understand various perspectives and experiences of colonialism and postcolonialism.

■ **Asian History**

HSS521

(T3)

This course surveys the history of China, Korea, and Japan from traditional to modern times. The content of class lectures and discussions ranges over a variety of themes, which include the vectors of politics and structures of the state, connections with the outside world, economic and social organization, popular and elite cultures, and the contours of everyday life. In addition to a basic textbook, readings draw heavily on primary materials such as government documents and autobiographies, allowing us to explore Asian representations of their social world. (Ms. Son)

■ **History of the Middle East**

HSS532

(T3)

HSS532, Term 3—History of the Middle East will delve into the history of the relationship between Iran and Iraq. Two nations at the heart of contemporary conflict, this course will examine in greater detail their history through periods of stability, strength and regional dominance, and fracturing and disarray. We will examine the local, regional, and global impact of these two nations, whose histories are often inextricably linked. We will examine the development of nationalism, impact of colonialism, the Cold War and the rise of leftist and Islamist political movements and will take a more detailed look at the Iranian revolution and its regional and global impact, the Iran-Iraq war, the post-Cold War period and nuclear weaponry, the American wars in Iraq, the emergence of ISIS, and the nuclear deal-making. Along with our course text, we will utilize a wide array of source material, both primary and secondary, as well as articles, films, music, and online resources. (Ms. Monroe)

■ **Europe: Birth, Revolution, and War**

HSS541

HSS542

HSS543

(T1, T2, T3)

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.

HSS541, Term 1—1450–1789. 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. (Ms. Doheny)

HSS542, Term 2—1789–1914. Topics include: the French Revolution and Napoleon, the revolutions of 1848, nationalism and national unification, liberalism, and European imperialism. (Ms. Mulligan)

HSS543, Term 3—1914–1992. 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**

HSS546

(T3)

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 mythical 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)

■ **Europe 1914–1945: War and Peace**

HSS552

(T1)

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 arts 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. (Ms. Mulligan)

■ **Skulls, Angels, and Hour Glasses: Early New England Gravestone Iconography and Field Research**

HSS562

(T1)

This course investigates 17th-, 18th-, and early 19th-century gravestones in the towns of Andover and North Andover. Through readings, lecture, discussion, and most importantly, fieldwork in local colonial burial grounds, this course strives to answer several questions: How do gravestone styles change over time? How can these changes in style allow us to understand evolving religious thought in early Andover? Can we use this data to understand broader theoretical patterns of the change of material culture? What is the meaning of the graphic imagery and poetic epitaphs on colonial gravestones? What can we do to preserve these cultural resources for the future while making them more accessible to the public? Serving as the launch for a long-term project, this practicum course will lay the groundwork for photographic and three-dimensional documentation of stones, as well as the development of a database of all artistic, poetic, and biographic information recorded on stones. This work will be conducted in conjunction with The Nest (PA's makerspace), the North Andover Historical Society, and Andover's South Church. (Dr. Slater)

■ **North American Borders**

HSS564

(T1)

This course provides a space for engaging discussion and analysis on the conceptualization of borders, specifically the construction of imaginary and physical North American borders that unite as much as divide the people of the United States, Mexico, and Canada. Students will study the historiography of the social and political interactions among varied peoples along the native, imperial, and national borders of the continent throughout the mid-1800s to the present day. The class will explore themes concerning differential power relations; immigration, citizenship, human rights, and sovereignty; nationalism, transnationalism, and internationalism; border openings and closings; and the ethnic groups that cooperate or engage in conflict along these shifting and evolving boundaries. These complicated ideas will reflect the leading discourse from not only borderlands specialists but also the polemic rhetoric emerging from (non)state actors across the continent to understand the diversity of thought on shaping borders. (Dr. Villanueva)

■ **Critical Race Theory: The American Dream Deferred**

HSS574 (may be taken as a History or Interdisciplinary course; official course number is INT520CR)

(T3)

One credit assigned in History or Interdisciplinary. 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)

■ **American Conservatism—Colloquium**

HSS575 (may be taken as a History or Interdisciplinary course; official course number is INT591CO)

(T1)

One credit assigned in History or Interdisciplinary. In the 1955 mission statement for the newly founded journal the *National Review*, William F. Buckley wrote the following: “The profound crisis of our era is, in essence, the conflict between the Social Engineers, who seek to adjust mankind to conform with scientific utopias, and the disciples of Truth, who defend the organic moral order. We believe that truth is neither arrived at nor illuminated by monitoring election results, binding though these are for other purposes, but by other means, including a study of human experience. On this point we are, without reservations, on the conservative side.” In its skepticism of social change and its defense of natural order, Buckley’s *National Review* signified a mid-20th century renewal of American conservative thought, a political counterweight to postwar New Deal liberalism, with intellectual roots stretching back to the founding of the nation. But what specifically did it mean in 1955, and what does it mean now, to be “on the conservative side”?

In this version of the William Sloane Coffin Jr. ’42 Colloquia Series, we will explore the many dimensions of American conservatism as expressed in theory and in practice. Topics may include: the philosophy of conservatism; Edmund Burke and the American Revolution; conservative laissez faire capitalism and the Chicago School of economics; race, gender, and the conservative commitment to individual liberty; European and American conservatism in comparative study; anti-Communism; faith and science in conservative thought; and American exceptionalism. We will also devote attention to those ideas and ideologies that have been offshoots of traditional conservatism, challenges to traditional conservatism, or both, such as libertarianism, neo-conservatism, Marxism, and neo-liberalism. Finally, we will consider conservatism as a philosophical position that seeks stability, conservation, and tradition across disciplines ranging from the arts to the sciences. The authors we read may include William F. Buckley, Edmund Burke, John C. Calhoun, Benjamin Disraeli, Ross Douthat, Milton Friedman, Eugene Genovese, Barry Goldwater, Louis Hartz, Friedrich Hayek, Richard Hofstadter, Samuel Huntington, Robert Kagan, Russell Kirk, Irving Kristol, Joseph McCarthy, George Nash, Reinhold Niebuhr, Peggy Noonan, Corey Robin, Phyllis Schlafly, Leo Strauss, Sam Tanenhaus, Lionel Trilling, Richard Weaver, Garry Wills, and Gordon Wood.

Following the model of previous colloquia, we will meet Monday and Wednesday evenings from 8 to 9:30 p.m., and a different member of the faculty will lead each meeting. (Dr. Jones, coordinating with faculty from various departments)

■ **Urban Crisis**

HSS576

(T2)

“All politics,” Tip O’Neill concluded, “is local.” In this seminar, students will put this oft-cited sentiment to the test by examining the dynamic relationship between local, state, and federal politics. American cities—the key sites of contestation for many policy debates in the decades following WWII—will serve as the lens through which students access the lived experience and ramifications of broader national political trends, events, crises, and movements. Students will deploy the methodological tools of urban history to contemplate the cultural, spatial, and social reality of urban environments, and examine the contingent historical development—and impact—of urban policies on social and economic inequality in modern American cities. Some of the issues covered include suburbanization in Detroit, the War on Poverty in Las Vegas, the War on Crime in New York, and the War on Drugs in Los Angeles. (Dr. Dahm)

■ **Schooling in America**

HSS577

(T2)

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 Social History of Latin America**

HSS581

(T2)

This class will focus on the lives of people in Latin America as well as Brazil. We will cover the history of Mesoamerica 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? (Ms. Ramos)

■ **The History and Literature of the Haitian Revolution**

HSS588 or ENG540HR (may be taken as a History, English, or Interdisciplinary course; official course number is INT505HR)

(T2)

One credit assigned in History, English, or Interdisciplinary. Few events have been as transformative and far reaching in effect—yet so untaught and unlearned across the humanities—as the Haitian Revolution, which occurred from 1791 to 1804. This interdisciplinary course will investigate the revolution and its legacy and attempt to address, at least in part, the monumental significance of the only successful large-scale slave rebellion in the Atlantic World. By 1804, the newly independent Haitians, freed by their own hands, had won for themselves a unique inheritance: theirs was a society born of the Age of Revolutions and animated by the Enlightenment-inspired language of liberty, but equally theirs was a society deeply rooted in African and Afro-Caribbean slave culture. In its independence, Haiti became the center of a transnational black diaspora as it defended its existence at a time when the United States and European colonial powers viewed racial slavery as the pillar of their burgeoning capital economies. This elective aims to explore these complicated ideas through a variety of texts, digital archives, fiction and nonfiction, literature, and history. (Dr. Jones and Ms. Curci)

■ **Art and the State**

HSS591

(T1)

Art and the State examines how history—and its conflicts—can be understood through the artistic objects that societies create. This course offers a broad overview of the impact of art from the late 19th through the 20th centuries, investigating the correlation between art and major historical, political, and cultural events or shifts over the same period in the West and East. Focusing on how visual art, music, architecture, and urban planning represent (rather than reflect) social reality, we will analyze, on the one hand, how states support, mobilize, and utilize art and architecture and to imagine and construct national identity and cultural tradition, but on the other hand, how art enables a critique of the state, thereby undermining the nation/national identity. Students will use textual, visual, and audio sources as material sources and should come away with a sense both of the development of art in history and its relationship with the nation and the state. (Dr. Son)

■ **Natural Causes: How Climate Change Wrote History**

HSS593 or SCI476 (may be taken as a History, Science, or Interdisciplinary course; official course number is INT507NC)

(T2)

One credit assigned in History, Science, or Interdisciplinary. Open to Uppers and Seniors. The impact of human activity on the behavior of the earth's climate has become one of the overriding concerns of the modern world, making climate change the central environmental problem of our time. Anticipating the impact of climate change on modern civilization, however, is not an easy exercise. Past climate change can help us to understand it as a catalyst for change that humans were not aware of, and can then help us to decide the role humans have played in the current environmental situation.

Through a series of case studies, we will investigate how civilizations have been influenced by weather and climate change. Starting with a historical overview of broad changes in climate, students will investigate specific instances when weather has influenced the course of history. How, for example, did winter weather protect Russia from invasion by first Sweden, then Napoleonic France and Nazi Germany? We will then expand our scope to examine the larger and longer-term influence of climate shifts on the course of regional civilizations such as the Maya in Central America, the Tang Dynasty in China, and the Harappan/Indus Valley civilization. The third group of case studies will examine the impact of global climate shifts on the interaction between civilizations on a continental scale. Examples could include the rise and spread of the Mongol civilization from central Asia to Eastern Europe and eastern Asia. We will end the term by examining the possible consequences of climate change on the future course of modern civilization.

■ **History Research Seminar**

HSS600

(T2)

Building upon research skills developed in the Department of History and Social Science's 100, 200, and 300 sequences as well as our 500-level elective offerings, HSS600 challenges students to tackle more in-depth and independent (though still instructor-guided) research. Class periods will variously include lecture and discussion to build students' critical research skills and will provide work time devoted to library and internet research, writing, editing, teacher conferences, and peer review. Throughout the term, students will build toward the production of an academically rigorous research paper as they complete checkpoints, including a topic proposal, thesis statement, annotated bibliography, outline, and a paper draft. To encourage students to take full ownership of their research and to pursue individual passions in history and social science, each student will be given the autonomy to select a research topic of their choosing. Class size may be limited, and this course will take the place of most history Independent Projects.

Prerequisite: Completion of the HSS300 sequence.

■ **Histories of Art**

ART441 (may be taken as an Art or Interdisciplinary course; official course number is INT503HA1)

ART442 (may be taken as an Art or Interdisciplinary course; official course number is INT503HA2)

ART443 (may be taken as an Art or Interdisciplinary course; official course number is INT503HA3)

(T1, T2, T3)

Michelangelo's *David*. A three-second Snapchat. The Rothko Chapel. Video of a police officer shooting Tamir Rice. O'Keeffe's flowers.

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 *ART441*, *442*, or *443* also are eligible to join an optional study trip to Europe during spring break.

ART441, Term 1—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 Praxiteles, 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.

ART442, Term 2—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.

ART443, Term 3—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 postmodern dismantling of the Eurocentric tradition that permeates contemporary visual culture. (Mr. Fox)

Prerequisite: *Open to Lower, Uppers, and Seniors, who may take one, two, or three terms; completion of ART222, 223, 224 or 350 is recommended but not required.*

■ **What Is America? What Is American Art?**

ART465

(T3)

Utilizing the Addison Gallery of American Art's collection, *ART465* students will have the opportunity to learn how aspects of history and culture are portrayed, expressed, and shaped by art and in art collections. This course will guide students through themes in American art from the 19th century to the present and explore the history of the Addison Gallery's collecting practices, beginning with the gallery's founding in 1931. *ART465* will split time between the classroom and the Addison. In the classroom, students will learn about and discuss historical developments in American art. In the galleries, students will hone their skills in visual analysis while applying historical knowledge gained from assigned readings and in-class discussion to deepen their understanding of objects in the Addison's collection. Students are expected to engage deeply with the Addison collection, complete all readings and assignments on time, and work collaboratively with their peers.

Students will walk away from this class with a foundational understanding of major themes in American art and an overview of the Addison's collecting practices over time as well as important and transferable visual literacy skills.

Based on their term-long study of the Addison Gallery's collection and the history of American art, students will be asked to draft an acquisition proposal for their final project in the class. These final projects will be used by the gallery's curatorial team to guide future acquisition considerations. (Dr. Williams, Visiting Scholar in Art History and Assistant Curator at the Addison Gallery)

Prerequisite: *Open to Lower, Uppers, and Seniors; completion of ART225 or a 300-level art elective is recommended but not required.*

Elective Courses Not Offered in 2018–2019

- ***Disease and Medicine in the United States: Pox and Pestilence***
HSS480 or SCI480
- ***Race and Identity in Indian Country: Decolonizing Museums and Healing the Wounds***
HSS561
- ***The American Civil War, 1845–1877***
HSS565
- ***The Making of America? Industrialization, Immigration, and Identity in the Merrimack Valley, 1830–Present***
HSS567
- ***A History of 1968: Year in Crisis***
HSS572
- ***American Popular Culture***
HSS578
- ***Environmental History***
HSS579
- ***Shamans, Sacrifice, and Ceremony: The Maya Spirit World from Antiquity to the Present***
HSS583

INTERDISCIPLINARY STUDIES

A liberal education seeks, in part, to produce citizens who are synthesizers of information, interrogators of knowledge, and discerners of meaning—citizens equipped to question and enact justice. While a school fosters such critical thinking in myriad ways, integrative approaches to learning provide students with skills and dispositions fundamental to this aim: identifying preconceptions and bias, recognizing the validity of another's point of view, appreciating ambiguity, understanding ethical considerations, sparking creative problem-solving, and ultimately employing these skills in the pursuit of bettering our world.

At Phillips Academy, interdisciplinary approaches to learning can be structured in varied ways, yet the core component of any interdisciplinary experience has the student—the epistemological site of learning—place two or more disciplines in an active, sustained conversation that stresses connections.

The Department of Interdisciplinary Studies creates, houses, and supports individual courses devoted to interdisciplinary learning as well as courses devoted to the study of race-class-gender-sexuality, and it collaborates with other departments to embed such study across the curriculum. Throughout its work, the department is guided by its stated philosophy outlined in “Interdisciplinary Work at Andover: Purpose and Scope” (2016).

Each of the following courses may be taken for credit in Interdisciplinary Studies (INT). In addition, most courses may instead be taken for credit in one or more other academic departments, as indicated.

Courses that significantly embed intersectional studies of varied axes of identity, including race-class-gender-sexuality, are highlighted with an (*).

■ **Third-Level German**

INT300 (may be taken as a German or Interdisciplinary course)

(T3) (END OF A THREE-TERM COMMITMENT)

One credit assigned in German or Interdisciplinary.

INT300, Term 3—Berlin: From Imperial Capital to Weltstadt. One credit assigned in either German or Interdisciplinary. This course is open to students who have successfully completed *GER300B*. Term 3 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*, related newspaper articles, and music selections will provide students with the grammar and vocabulary that will 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.**

■ **Environmental Science: Food, Agriculture, and the Future**

INT501FA (may be taken as a Science or Interdisciplinary course)

(T1)

One credit assigned in Science or Interdisciplinary. 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 *SCI410* and/or *SCI430*. 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, provide an introduction to environmental economics and policy, 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. (Mr. MacKinson)

■ **Environmental Science: Global Climate Change**

INT501GC (may be taken as a Science or Interdisciplinary course)

(T3)

One credit assigned in Science or Interdisciplinary. Open to Seniors and to Uppers who have completed three-terms of laboratory science. This course may be taken in addition to or independently of *SCI420* and/or *SCI430*. 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. (Mr. MacKinson)

■ Water and Humanity

INT502WH (may be taken as a Science or Interdisciplinary course)

(T2)

One credit assigned in Science or Interdisciplinary. Open to Seniors and to Uppers who have completed one year of laboratory science.

Water and Humanity 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. 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. (Mr. MacKinson)

■ Histories of Art

INT503HA1 (may be taken as an Art or Interdisciplinary course)

INT503HA2 (may be taken as an Art or Interdisciplinary course)

INT503HA3 (may be taken as an Art or Interdisciplinary course)*

(T1, T2, T3)

One credit assigned each term in Art or Interdisciplinary. Michelangelo's *David*. A three-second Snapchat. The Rothko Chapel. Video of a police officer shooting Tamir Rice. O'Keeffe's flowers.

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. Particular attention is paid 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 will serve 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 *ART443* also are eligible to join an optional study trip to Europe during Spring Break.

ART441, Term 1—Beginning with art as mimesis—as representation of "reality"—in Greece, Term 1 concludes with the further development of art during the Renaissance in Italy. Along the way, students encounter creators such as Giotto and Leonardo and explore many topics, including the development of organized labor, economics of the Medici Bank, evolution of the social status of some creators from craftsman to artist, devastation caused by the Black Death, gendering of different media (e.g., tapestries versus sculpture), and the power of monarchy and papacy.

ART442, Term 2—Term 2 stretches from the Reformation through Impressionism. 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.

ART443, Term 3—Covering the end of the 19th century to the present day, students in Term 3 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 postmodern dismantling of the Eurocentric tradition that permeates contemporary visual culture. (Mr. Fox)

Prerequisite: Open to Lower, Uppers, and Seniors, who may take one, two, or three terms; completion of *ART225* or a 300-level art elective is recommended but not required.

■ Law and Literature

INT504LL1 (may be taken as an English or Interdisciplinary course)

INT504LL2 (may be taken as an English or Interdisciplinary course)

(T1, T2)

One credit assigned each term in English or Interdisciplinary.

ENG521, Term 1—**Exploring Narrative.** This course explores the role of narration and storytelling in law, politics, and literature. It begins with a study of what narrative is, drawing from readings in literature, philosophy, and psychology. Equipped with a working definition, students will then investigate the narrative form in action across the disciplines of law, politics, and literature. What role does storytelling play in our law and politics? How do the stories of literature impact our understanding of law and politics?

ENG522LL, Term 2—Exploring Metaphor. This course explores the power and role of metaphor in law and literature. Drawing from interdisciplinary sources, students will study competing theories on the nature of metaphor and its particular importance in the disciplines of law and literature. Along the way, students will grapple with two works of literature where the nature of metaphor is on display: Vladimir Nabokov's enigmatic novel *Pale Fire* and the poems of Wallace Stevens in *The Palm at the End of the Mind*. Some questions we will struggle with include what is the relationship between metaphor, truth, and literal meaning; how do metaphors generate their meanings; and how, if at all, might metaphors expand or contract our understanding and experience of the law, the world, and ourselves? Student work will consist of the analytical essay, discussion board writings, and some introduction to the practice of legal writing and advocacy.

In both terms, readings will draw from a wide range of disciplines and genres, including legal opinions; cultural, political, and philosophical essays; poems; a novel; and/or a play. (Mr. Calleja)

■ **The History and Literature of the Haitian Revolution**

INT505HR (may be taken as an English, History, or Interdisciplinary course)

(T2)

One credit assigned in English, History, or Interdisciplinary. Few events have been as transformative and far reaching in effect—yet so untaught and unlearned across the humanities—as the Haitian Revolution, which occurred from 1791 to 1804. This interdisciplinary course will investigate the revolution and its legacy and attempt to address, at least in part, the monumental significance of the only successful large-scale slave rebellion in the Atlantic World. By 1804, the newly independent Haitians, freed by their own hands, had won for themselves a unique inheritance: theirs was a society born of the Age of Revolutions and animated by the Enlightenment-inspired language of liberty, but equally theirs was a society deeply rooted in African and Afro-Caribbean slave culture. In its independence, Haiti became the center of a transnational black diaspora as it defended its existence at a time when the United States and European colonial powers viewed racial slavery as the pillar of their burgeoning capital economies. This elective aims to explore these complicated ideas through a variety of texts, digital archives, fiction and nonfiction, literature, and history. (Ms. Curci and Dr. Jones)

■ **Astrobiology: Life Among the Stars**

INT506AB (may be taken as a Physics or Interdisciplinary course)

(T3)

One credit assigned in Physics or Interdisciplinary. We invite you to embark on a journey to explore the field of astrobiology, the study of the origin, evolution, and distribution of life in the universe, on and beyond planet Earth. We will begin our exploration by studying the fundamentals of relevant sciences—physics, astronomy, chemistry, and biology—and will then apply these sciences to understand the potential requirements and limitations of life on Earth as well as on other planets and moons in our solar system. As we learn about historical and current efforts to detect life on these bodies, we will consider objects resident in our own solar system, including Mars, the moons of Jupiter, the moons of Saturn, and other solar system bodies such as Ceres and Pluto. Next, we will expand our view to include other possible abodes of life outside of our solar system as discovered by modern astronomers and modern instrumentation (i.e., the Hubble and Kepler space telescopes). Finally, we will examine the role of fictional alien biology on the human imagination through literature, film, and music.

■ **Natural Causes: How Climate Change Wrote History**

INT507NC (may be taken as a History, Science, or Interdisciplinary course)

(T2)

One credit assigned in History, Science, or Interdisciplinary. Open to Uppers and Seniors. The impact of human activity on the behavior of the earth's climate has become one of the overriding concerns of the modern world, making climate change the central environmental problem of our time. Anticipating the impact of climate change on modern civilization, however, is not an easy exercise. Past climate change can help us to understand it as a catalyst for change that humans were not aware of, and can then help us to decide the role humans have played in the current environmental situation.

Through a series of case studies, we will investigate how civilizations have been influenced by weather and climate change. Starting with a historical overview of broad changes in climate, students will investigate specific instances when weather has influenced the course of history. How, for example, did winter weather protect Russia from invasion by first Sweden, then Napoleonic France and Nazi Germany? We will then expand our scope to examine the larger and longer-term influence of climate shifts on the course of regional civilizations such as the Maya in Central America, the Tang Dynasty in China, and the Harappan/Indus Valley civilization. The third group of case studies will examine the impact of global climate shifts on the interaction between civilizations on a continental scale. Examples could include the rise and spread of the Mongol civilization from central Asia to Eastern Europe and eastern Asia. We will end the term by examining the possible consequences of climate change on the future course of modern civilization.

■ **Art and Mathematics**

INT508AM (may be taken as an Art, Math, or Interdisciplinary course)

(T3)

One credit assigned in Art, Math, or Interdisciplinary. How can mathematicians use art to create proofs and how can artists use math as a basis for concept and imagery? How can these connections help to clarify or develop both mathematical and artistic processes? Students in this class will be using math to generate designs and structures that will function as the starting point in the creation of unique and expressive works of art. Students can expect to complete three to four projects utilizing mathematical topics. The class will explore mathematical areas such as sequences, geometry, number theory, and transformations along with art studio processes such as painting, collage, folding

(origami), drawing, and building with welded wire. On-campus field trips will include the Addison Gallery, the Knafel Map Collection, and the Peabody Institute. (Ms. Zemlin and Ms. Buckwalter)

Prerequisite: *Open to Lower, Uppers, and Seniors who have completed MTH340. Completion of ART225 or a 300-level art elective is recommended but not required.*

■ **Project-Based Statistics**

INT509PSA (may be taken as a Math or Interdisciplinary course)

INT509PSB (may be taken as a Math or Interdisciplinary course)

INT509PSC (may be taken as a Math or Interdisciplinary course)

(THREE-TERM COMMITMENT)

One credit assigned each term in Mathematics or Interdisciplinary. This is a community-based learning statistics course that will enable students to implement learned knowledge to work with communities. This curriculum-driven project contains a civic responsibility component that ties in with the concept of citizenship. Students will apply their knowledge immediately and beneficially as they “bring numbers to life” in collaboration with the PA community and local nonprofit organizations. For instance, students potentially would be able to collect, organize, interpret, analyze, and project data to help the Admissions Office, Dining Services, the Brace Center for Gender Studies, College Counseling Office, Archives and Special Collections, and other departments of interest at PA. Similarly, students can assist worthy causes in the wider community, working with those entities to tell stories with numbers.

Prerequisite: *MTH350 or permission of the department.*

■ **Human Origins**

INT510HO (may be taken as a Science or Interdisciplinary course)

(T1)

One credit assigned in Science or Interdisciplinary. 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. Human Origins includes weekly field or laboratory work outside of the classroom; 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. (Dr. Wheeler)

■ **August Wilson’s View of the 20th Century: His Pittsburgh, Our America**

INT511AW (may be taken as an English, Theatre, or Interdisciplinary course)*

(T1)

One credit assigned in English, Theatre, or Interdisciplinary. This course will use a selection of August Wilson’s plays to investigate how our society’s view of race changed during the 20th century. Students will move through Wilson’s plays in chronological order, focusing on the Aunt Ester plays in the Century Cycle in both a literary and theatrical way. This section will give students a glimpse into Wilson’s fictionalized Pittsburgh and insights into a more historically accurate Pittsburgh and America, as well as the man as a playwright. Students will look for connections between Pittsburgh and other American urban environments, examining how cities changed during the 20th century. This course is open to Seniors; it may be taken by Uppers with permission from the department chair. (Mr. Grimm)

■ **What Is Critique?**

INT512WC (may be taken as an English or Interdisciplinary course)

(T1)

One credit assigned in English or Interdisciplinary. 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”)?

To address these questions and others, we will read the works of many challenging theorists, including Walter Benjamin, Judith Butler, Jacques Derrida, Sigmund Freud, Henry Louis Gates, bell hooks, Nanette Salomon, and Kathi Weeks, among others—and we will apply their thinking to various art, film, and fiction. (Mr. Fox)

■ **Gender Theory**

INT513GT (may be taken as an English or Interdisciplinary or course)*

(T3)

One credit assigned in English or Interdisciplinary.

Foundational Gender Theory. This course introduces students to foundational texts in intersectional gender theory, including key concepts from gender theory as they are understood and used in critical interdisciplinary studies of gender. We will explore how these concepts are taken up from different perspectives to address specific social problems, particularly rape culture, and the implications of these critical approaches for thinking about and acting in the world. It is most important, independent of degree of familiarity and expertise with this

body of work, that you come willing and eager to read texts closely, ask and ponder questions, and engage others in the classroom community as peers worthy of your respect, especially in moments of disagreement. Possible authors include Gloria Anzaldúa, Cherríe Moraga, Judith Butler, Michel Foucault, Sigmund Freud, Kate Harding, Melissa Harris Perry, Patricia Hill Collins, Fatema Mernissi, Laura Mulvey, E. Anthony Rotundo, Gayle Rubin, Hortense Spillers, Audre Lorde, and Kimberlé Crenshaw. (Dr. Vidal)

■ **Asian/American Literature and Film**

INT514AS1 (may be taken as an English or Interdisciplinary course)*

INT514AS2 (may be taken as an English or Interdisciplinary course)*

INT514AS3 (may be taken as an English or Interdisciplinary course)*

(T1, T2, T3)

One credit assigned each term in English or Interdisciplinary. This seminar explores the literary, historical, and broader sociocultural development of the complex and ever-expanding body of work that collectively (and not always neatly) contributes to what may be called “Asian/American” literature and film. We will engage with a wide range of written and visual texts, including poetry, fiction, memoir, cinema, and television, as well as with scholarly and other artistic forms of production, in order to fashion an analytical framework, informed perspective, and interpretive approach through which to reread and rethink the culture, politics and history of the United States itself. A related goal is to understand the role of literature and other cultural forms in our nation’s struggles over identity, power, and resources. Focusing on the development and representation of Asian/America, we will unpack the social formation of race and the complexity of racial dynamics in the United States historically and today.

ENG541AS1, Term 1 and Term 2—The syllabus includes works by canonical and popular authors, filmmakers, and content creators. To develop and flex our critical tools and skills of reading, viewing, analyzing, and interpreting these written and visual texts, we will learn about and practice applying fundamental concepts, themes, and critical methodologies of the field of Asian/American literary and cultural studies. Our goal in this seminar is to gain wide exposure to the exciting diversity of Asian/American literature, film, and cultural production.

ENG543AS3, Term 3—**Placing Asian America: Ethnic Enclaves in Literature and Film.** This special topics seminar is organized around a broad theme such as Asian/American activism; Asian in the U.S. Literary Imagination; or a specific genre, historical period, or geographic or cultural region (e.g., Viet Nam or Chinatowns). (M. Martin)

■ **Advanced Topics in Chinese**

INT516CH (may be taken as a Chinese or Interdisciplinary course)

(T3)

This advanced yearlong course will have three term-based focuses. Throughout the year, students will be consistently immersed in authentic materials in order to gain an understanding of the constantly developing, changing landscape of modern Chinese society, including that of its overseas communities. Language acquisition is the main goal of this course, yet the integration of a variety of arts forms aims to develop critical thinking and empathy.

Prerequisite: Successful completion of *CHI500* or *CHI520*, or permission of the department chair.

CHI621, Term 1—**Screening Contemporary China: Chinese Language, Culture, and Society through Films.** The goal of this course is to immerse students in authentic language and culture through Chinese films as a way to understand aspects of Chinese national and cultural identity. It is hoped that the course not only will help students cultivate a greater command of language over analysis and theorization of Chinese cinema, but also will help facilitate students’ understanding of Chinese cinema and culture in the context of globalization.

CHI622, Term 2—**Modern Chinese Theater.** During this course, students will read, study, and perform an original Chinese play, *Thunderstorm* (Lei Yu), by iconic 20th-century Chinese playwright Cao Yu.

CHI623, Term 3—**Chinatowns and the Asian American Immigrant Experience.** **One credit assigned in Chinese or Interdisciplinary.** The goal for the course is for students, regardless of whether or not they are of Chinese descent, to gain a deepened understanding of the experience and the effects of Asian immigration into Northern California and beyond, through bilingual literature, archives, and film clips. As part of the coursework, students will self-reflect on the meaning of racial and cultural identity, especially against the histories of the Asian American experience. This term-based course is also experiential and will culminate in a class trip to the Bay Area or New York City.

■ **A Room of Their Own: Women’s Studies and Literature**

INT517WW1 (may be taken as an English or Interdisciplinary course)*

INT517WW2 (may be taken as an English or Interdisciplinary course)*

INT517WW3 (may be taken as an English or Interdisciplinary course)*

(T1, T2, T3)

One credit assigned each term in English or Interdisciplinary.

ENG541WW, Term 1—**Masculinities in Feminist Literature** In an interview with *The Atlantic* magazine, writer Junot Diaz says, “I think [my character’s] tragedy in a number of places in this book is that he keeps choosing his mask.” Many scholars of gender talk about American masculinity as a “mask,” and as Diaz states, this mask can lead to tragedy: suffering, disconnection, even violence. In this literature course, we will read authors who write toward a feminist view of manhood: one that emphasizes equality of the genders, emotional connection, and healthy relationships. Each writer we will explore puts a masculine character at the center of a novel, short story, or poem that exposes the ways in which gender norms can impede a quest for authenticity, connection, love, and truth. The texts in this course look at themes of friendship and mentorship; identity, race, and class; sexuality; and fatherhood. Together we will consider how these authors can

help inform a range of feminist possibilities for men and masculine-identifying people. Authors: Sherman Alexie, Ta-Nehisi Coates, Junot Diaz, Louise Erdrich, Barbara Kingsolver, Yusef Komunyakaa, and others.

ENG542WW and *ENG543WW*, **Term 2 and Term 3**—“To be a feminist can feel like being in a different world even when you are seated at the same table,” writes philosopher Sara Ahmed in *Living a Feminist Life*. In this course, our seminar table will center the voices of woman-identified authors working in all genres of literature. These authors could be called “feminist” writers, for their work somehow calls for, or envisions, a world resistant to sexism. Our writers may all identify as women, but they write from vastly different positions in history, society, identity, and politics. So what is “feminist literature,” and what kind of work does it do in the world? Students should prepare to write critically, personally, and creatively both in and out of class. Authors include: Roxane Gay, Marilyn Chin, Toni Morrison, Marge Piercy, Sylvia Plath, Alison Bechdel, Virginia Woolf, Marjane Satrapi, Kate Bornstein, Margery Kempe, Ursula K. LeGuin, Louise Erdrich, and others. (Ms. Staffaroni)

■ **Lockdown**

INT518LD (may be taken as an English or Interdisciplinary course)*

(T2)

One credit assigned in English or Interdisciplinary. 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)

■ **“I See Your True Colors”: Queer Literature**

INT519QL1 (may be taken as an English or Interdisciplinary course)*

(T3)

One credit assigned in English or Interdisciplinary. This course examines poems, plays, and stories that raise key questions about sexuality, gender, identity, and desire. Alongside our core literary texts, we will also consider art, music, and film as well as classic texts in the history and theory of sexuality. Topics may include: gay liberation; AIDS activism; the closet, passing, and coming out; the relationship between feminism and lesbian practice; trans identities and narratives; bisexual erasure; queer communities, spaces, and performance; non-normative love and affinity; law, medicine, psychoanalysis, and religion; homophobia, transphobia, and heterosexism; mental health; debates around same-sex marriage and assimilation; and the intersections of sexuality with race, class, age, nationality, and ability. (Dr. Gardner)

■ **Critical Race Theory: The American Dream Deferred**

INT520CR (may be taken as a History or Interdisciplinary course)*

(T3)

One credit assigned in History or Interdisciplinary. 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)

■ **Women’s, Gender, and Sexuality Studies**

INT521WG (may be taken as a History or Interdisciplinary course)*

(T3)

One credit assigned in History or Interdisciplinary. 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)

■ **Being, Thinking, Doing**

INT522BT (may be taken as an English or Interdisciplinary course)

(T2)

One credit assigned in English or Interdisciplinary. Through reading and discussing the expression of human values in selected works, students in this interdisciplinary philosophy and literature course explore two broad questions: How do people live their lives, and how should people live their lives? Within this framework, students think reflectively about the beliefs they and their society have developed, and they look at the emergence of different epistemological, ethical, and political ideals and responses to life.

Readings may include Ellison's *Invisible Man*, Percy's *The Moviegoer*, Turgenev's *Fathers and Sons*, Vonnegut's *Slaughterhouse-Five*, excerpts from Agee and Evans' *Let Us Now Praise Famous Men*, Arendt's *Eichmann in Jerusalem*, Bonhoeffer's *Letters and Papers from Prison*, and brief selections from Aristotle, Descartes, Epictetus, Kant, Nietzsche, Plato, Schopenhauer, and Spinoza. (Mr. Fox)

■ **The Epic Tradition**

INT523ET (may be taken as a Classics or Interdisciplinary course)

(T1)

One credit assigned in Classics or Interdisciplinary. 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**

INT524WA (may be taken as a Classics or Interdisciplinary course)*

(T2)

One credit assigned in Classics or Interdisciplinary. 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**

INT525AT (may be taken as a Classics or Interdisciplinary course)

(T3)

One credit assigned in Classics or Interdisciplinary. 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.

■ **"Our Americas": Crossing Borders**

INT528CB1 (may be taken as a Spanish or Interdisciplinary course)

INT528CB2 (may be taken as a Spanish or Interdisciplinary course)

INT528CB3 (may be taken as a Spanish or Interdisciplinary course)

(T1, T2, T3)

One credit assigned each term in Spanish or Interdisciplinary. In this post-Advanced 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.

SPA621, Term 1—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?

SPA622, Term 2—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 SPA501, 521, or 522 level, or by permission of the department chair.**

SPA623, Term 3—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.

■ **What Is America? What Is American Art?**

INT529WA (May be taken as an Art or Interdisciplinary course)

(T3)

One credit assigned in either Art or Interdisciplinary. Utilizing the Addison Gallery of American Art's collection, *ART465* students will have the opportunity to learn how aspects of history and culture are portrayed, expressed, and shaped by art and in art collections. This course will guide students through themes in American art from the 19th century to the present and explore the history of the Addison Gallery's collecting practices, beginning with the gallery's founding in 1931. *ART465* will split time between the classroom and the Addison. In the classroom, students will learn about and discuss historical developments in American art. In the galleries, students will hone their skills in visual analysis while applying historical knowledge gained from assigned readings and in-class discussion to deepen their understanding of objects in the Addison's collection. Students are expected to engage deeply with the Addison collection, complete all readings and assignments on time, and work collaboratively with their peers.

Students will walk away from this class with a foundational understanding of major themes in American art and an overview of the Addison's collecting practices over time as well as important and transferable visual literacy skills.

Based on their term-long study of the Addison Gallery's collection and the history of American art, students will be asked to draft an acquisition proposal for their final project in the class. These final projects will be used by the gallery's curatorial team to guide future acquisition considerations. (Dr. Sparling Williams, Visiting Scholar in Art History and Assistant Curator at the Addison Gallery)

Prerequisite: *Open to Lower, Uppers, and Seniors; completion of ART225 or a 300-level art elective is recommended but not required.*

■ **Youth from Every Quarter**

ENG530YQ (may be taken as an English or Interdisciplinary course; official course number is INT533YQ)

(T2)

One credit assigned in English or Interdisciplinary. Decades before the public education reforms of Horace Mann, Phillips Academy was founded as a school that “shall be ever equally open to Youth, of requisite qualifications, from every quarter.” In this colloquium, we will interrogate the three words often omitted from this statement of egalitarian ideal: “of requisite qualifications.” By developing historical and contemporary understandings of Phillips Academy itself, we will explore issues of effort, merit, and privilege. When the Academy was founded, what constituted qualification? Who determined it, for what purposes, and with what consequences? How have answers to these questions evolved during the last 238 years, and why?

Using multiple methodologies and sources, we will generate our own research and observations about Phillips Academy and focus on varied topics, including: the experiences of various historically marginalized groups at the school; privilege; the school's role in the abolitionist movement and slave trade; the history of Abbot Academy and its merger with/ acquisition by Phillips Academy; Asian and Asian-Americans and the mythology of the “model minority”; the role of science and technology in fostering inclusion and exclusion, among other topics. (Mr. Fox, coordinating schedule with faculty from various departments)

■ **Media Studies**

INT530MS1 (may be taken as an English or Interdisciplinary course)

INT530MS2 (may be taken as an English or Interdisciplinary course)

INT530MS3 (may be taken as an English or Interdisciplinary course)

(T1, T2, T3)

One credit assigned each term in English or Interdisciplinary. Working from the premise that all messages are constructed, we will examine the forces (explicit and subtle) that inform those constructions as well as the ways in which our daily and multiple interactions with various media determine our sense of self, identity, truth, and desire. Students will read a range of media studies theory and then put those theories into practice by examining the language, images, narratives, and truth we encounter in news sources, advertising, television, politics, sports, and other cultural representations. Students will be expected to write every week. Term 1 will focus on the production and consumption of commercial news media, the indeterminate lines between news and entertainment, and the importance of branding and advertising. Terms 2 and 3 will look at contemporary television shows, examining questions of narrative, character, and identity; current critical writing about TV; important aspects of TV production; and thematic treatment of topics such as nostalgia, heroism, or family.

This course does not currently meet requirements for NCAA eligibility.

■ **An Introductory Survey of African American Literature**

INT532AA1 (may be taken as an English or Interdisciplinary course)*

INT532AA2 (may be taken as an English or Interdisciplinary course)*

INT532AA3 (may be taken as an English or Interdisciplinary course)*

(T1, T2, T3)

One credit assigned each term in English or Interdisciplinary. This seminar course offers an overview of African American literature through reading and writing assignments, discussions, student-led seminars, and possible visiting lectures on art, music, and history.

ENG541AA, Term 1—Origins, Icons, and Abominations. The class will focus on the literature from slavery and freedom, including captivity narratives and oral tradition, as well as Reconstruction and Post-Reconstruction literature.

ENG542AA, Term 2—Considering the American Dream. Students read the literature of the Harlem Renaissance and African-American expressions of realism, naturalism, and modernism.

ENG543AA, Term 3—Centralizing and De-centralizing Black Life and Culture. Following an examination of the Black Arts movement, the course will focus on literature, including poetry and drama, since the 1970s. (Dr. Tsemo)

■ **Feminist Philosophies**

INT534FP (may be taken as a Philosophy and Religious Studies or Interdisciplinary course)

(T2)

Open to Uppers and Seniors, and to Loweres with permission of the instructor. This course will address feminist moral and political theories. There is no singular ‘feminism’, and feminists disagree with each other on the answers to many of those moral and political claims. We will survey a variety of feminisms, including liberal and radical feminisms, womanism, and others. The course will also cover topics including sex and gender, the nature of oppression, intersectionality (including discussions of race, disability, gender identity, and class), and sexual ethics. Special topics will be chosen by students for further focus, but could include topics such as body shaming, trafficking, or understandings of masculinity.

■ **Great Philosophical Questions: Ethics and Technology**

INT535ET (may be taken as a Philosophy and Religious Studies or Interdisciplinary course)

(T2, T3)

Open to Uppers and Seniors, and to Loweres with permission of the instructor. From the use of fire to written natural and computational languages to advances in agriculture, weaponry, industry, science, medicine, communication, and artificial intelligence, human technologies have transformed our world. They also have added new complexities to the challenge of answering fundamental philosophical questions such as: What can we know? How should we act? For what can we hope? What is a human being? Seminar participants will explore a variety of answers offered by thinkers, past and present, who can help us reflect well on the nature and worth of efforts to extend our understanding and our power through technology.

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

INT536RA (may be taken as a Philosophy and Religious Studies or Interdisciplinary course)

(T1)

Open to Uppers and Seniors, and to Loweres 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?

■ **Global Islams**

INT537GI (may be taken as a Philosophy and Religious Studies or Interdisciplinary course)

(T1, T3)

Open to Uppers and Seniors, and to Loweres with permission of the instructor. With nearly two billion adherents globally, Islam is one of the fastest growing religious traditions in the world today. Yet, with less than 1 percent of the U.S. population identifying as Muslim, it is also one of the most misunderstood. What is Islam? Where is it practiced? What do Muslims believe? This course aims to introduce students to the vast internal complexities of the Islamic tradition through a combination of primary and secondary sources in history, scripture, law, art, and popular culture. In addition to exploring the origins of the tradition in the Middle East and its subsequent expansion, students will also examine a variety of contemporary issues, such as the rise of Islamophobia in West; the role of gender, jihadist, and fundamentalist movements; and Muslim immigration in the United States.

■ **Ethics: Medicine**

INT538ME (may be taken as a Philosophy and Religious Studies or Interdisciplinary course)

(T1)

Open to Uppers and Seniors, and to Loweres with the permission of the instructor. Modern medical research and practice present society with new opportunities and significant challenges. Students in this course will look at various case studies at the intersection of medicine,

scientific research, health care, and ethics. Possible case studies may include debates about abortion, euthanasia, animal rights, and broader environmental implications of scientific and material progress in the 21st century. Classical and contemporary philosophers will be read as part of our investigation into these topics.

The William Sloane Coffin Jr. '42 Colloquia Series

This colloquium series brings instructors from across the Academy to engage students in a particular topic. Typically, more than 15 faculty members representing more than six departments participate in a colloquium. Previous colloquia topics include Bob Dylan; Justice, Law, Tyranny; London: Harbinger of Modernity; Charles Darwin; Relativity, Incompleteness, and Subjectivity; Youth from Every Quarter; The Storm; and Martin Luther King Jr.

■ American Conservatism—Colloquium

INT591CO (may be taken as a History or Interdisciplinary course)

(T1)

One credit assigned in History or Interdisciplinary. In the 1955 mission statement for the newly founded journal the *National Review*, William F. Buckley wrote the following: “The profound crisis of our era is, in essence, the conflict between the Social Engineers, who seek to adjust mankind to conform with scientific utopias, and the disciples of Truth, who defend the organic moral order. We believe that truth is neither arrived at nor illuminated by monitoring election results, binding though these are for other purposes, but by other means, including a study of human experience. On this point we are, without reservations, on the conservative side.” In its skepticism of social change and its defense of natural order, Buckley’s *National Review* signified a mid-20th century renewal of American conservative thought, a political counterweight to postwar New Deal liberalism, with intellectual roots stretching back to the founding of the nation. But what specifically did it mean in 1955, and what does it mean now, to be “on the conservative side”?

In this version of the William Sloane Coffin Jr. '42 Colloquia Series, we will explore the many dimensions of American conservatism as expressed in theory and in practice. Topics may include: the philosophy of conservatism; Edmund Burke and the American Revolution; conservative laissez faire capitalism and the Chicago School of economics; race, gender, and the conservative commitment to individual liberty; European and American conservatism in comparative study; anti-Communism; faith and science in conservative thought; and American exceptionalism. We will also devote attention to those ideas and ideologies that have been offshoots of traditional conservatism, challenges to traditional conservatism, or both, such as libertarianism, neo-conservatism, Marxism, and neo-liberalism. Finally, we will consider conservatism as a philosophical position that seeks stability, conservation, and tradition across disciplines ranging from the arts to the sciences. The authors we read may include William F. Buckley, Edmund Burke, John C. Calhoun, Benjamin Disraeli, Ross Douthat, Milton Friedman, Eugene Genovese, Barry Goldwater, Louis Hartz, Friedrich Hayek, Richard Hofstadter, Samuel Huntington, Robert Kagan, Russell Kirk, Irving Kristol, Joseph McCarthy, George Nash, Reinhold Niebuhr, Peggy Noonan, Corey Robin, Phyllis Schlafly, Leo Strauss, Sam Tanenhaus, Lionel Trilling, Richard Weaver, Garry Wills, and Gordon Wood.

Following the model of previous colloquia, we will meet Monday and Wednesday evenings from 8 to 9:30 p.m., and a different member of the faculty will lead each meeting. (Dr. Jones, coordinating with faculty from various departments.)

■ Abbot Scholar Interdisciplinary Research Seminar

INT600A

INT600B

(T2, T3)

The *Abbot Scholar Interdisciplinary Research Seminar* is a two-term course for seniors who wish to complete extensive independent, interdisciplinary research and/or extensive independent research that explores varied intersectional axes of identity, including race-class-gender-sexuality. Permission of the department chair is required. During Term 2, students focus on solidifying their self-selected research proposal, planning their work, learning various research methodologies, executing the research, and producing a comprehensive draft. During Term 3, each student focuses on revising multiple drafts, producing the final paper, and preparing for, and delivering, a 45-minute public presentation. Throughout both terms, students work independently under the guidance of the instructor and a faculty advisor, and also collaboratively with each other.

Elective Courses Not Offered in 2018–2019

■ *This Is America: The Wire*
ENG511TW

■ *Immersion in Lawrence, The Immigrant City*
INT527LA

■ *August Wilson’s View of 1900–1940s: His Pittsburgh, Our America*
ENG531AW or THD531

■ *August Wilson’s View of the Second Half of the 20th Century*
ENG532AW or THD532

■ *Musical Theatre*
MUS390 or THD390

MATHEMATICS, STATISTICS & COMPUTER SCIENCE

The mathematics curriculum is built around a core sequence of eight terms: three of elementary algebra, two of geometry, one of intermediate algebra, and two of precalculus topics. The completion of these eight terms will satisfy diploma requirements, but one or two additional terms of precalculus are required as prerequisites for more advanced courses in calculus, computer science, and statistics. Placement of new students in the appropriate first course is made by the department, based on the results of an online survey and placement test that is sent to newly admitted students in the spring.

Typically, new ninth-graders entering with little or no prior study of algebra start with *MTH100*. For a student who already has studied algebra and perhaps geometry, our sharply focused and adaptive Math Placement Test is designed to pinpoint those topics that the student already knows while at the same time indicating those topics to which the student still needs introduction. With the results of this test, an appropriate initial course is identified so that a student joins our program geared for success.

Similarly, our Math Placement Test is used for students entering as 10th-, 11th-, and 12th-graders and postgraduates. These new students generally join our curriculum at the 300- or 400-level, again based on the results of the adaptive online test.

The precalculus curriculum focuses on the study of functions. Success in these courses is important in preparation for the challenges of the advanced courses. To assure success, a student who earns a final grade of 2 or 3 in *MTH320*, *330*, *340*, or *350* may, with department approval, retake the 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 *MTH360*; those who plan to take the Level IC exam should do so after finishing *MTH340*.

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 *MTH630* 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. *MTH350* and *MTH360* 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

MTH100

(T1)

This course is for students who demonstrated, through a placement test, the need for a thorough review of first-year algebra. Stress is placed on the understanding of the elementary structure and language of the real numbers system, the manipulative skills of simplifying expressions, solving linear and quadratic equations, and graphing of linear and quadratic functions. The course includes work with word problems, inequalities, absolute values, and rational expressions.

■ Elementary Algebra

MTH150

(T2)

MTH150 is a continuation of the thorough review of first-year algebra begun in *MTH100*. Students who successfully complete this one-term course will be prepared for *MTH210*.

■ Elementary Algebra

MTH190

(T1)

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

MTH210

(T1, T2, T3)

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

MTH220

(T1, T2, T3)

This course continues the work of *MTH210*, with increased emphasis on the algebraic and numerical aspects of geometry.

Prerequisite: *MTH210.*

■ Geometry and Precalculus

MTH280A

MTH280B

MTH280C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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 and coordinate) and elementary functions. This course completes the diploma requirement and prepares students to enroll in *MTH380*.

Prerequisite: *Placement by the department.*

■ Algebra Consolidation

MTH300A

MTH300B

(T1, T2) (TWO-TERM COMMITMENT)

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 *MTH320*). Upon completion of *MTH300*, the instructor and department chair will determine whether a student takes *MTH320* or *MTH330* in Term 3.

Prerequisite: *Placement by the department.*

■ Precalculus

MTH320

(T1, T2, T3)

For returning students, this course is taken after *MTH220* (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: *MTH220 or its equivalent. Students who earn a grade of 2 or 3 may re-take the course.*

■ Precalculus

MTH330

(T1, T2, T3)

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: *MTH320 or its equivalent. Students who earn a grade of 2 or 3 may re-take the course.*

■ Precalculus

MTH340

(T1, T2, T3)

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 *MTH340* or *MTH400*.

Prerequisite: *MTH330 or its equivalent.*

■ **Precalculus Trigonometry**

MTH350

(T1, T2, T3)

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: *MTH340 or permission of the department.*

■ **Precalculus Parametric and Polar Curves**

MTH360

(T1, T2, T3)

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. *MTH360* is the final course in the precalculus sequence.

Prerequisite: *MTH350 or its equivalent.*

■ **Off-Cycle Precalculus Sequence**

MTH330 (T3)

MTH340 (T1)

MTH350 (T2)

MTH360 (T3)

The off-cycle sequence of our precalculus curriculum covers the same topics as the course sequences that start with *MTH330* in Term 1 and Term 2. 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 *MTH300* 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 *MTH575*. All other students are prepared to take *MTH510* or *MTH530*.

■ **Accelerated Precalculus**

MTH380A

MTH380B

(TWO-TERM COMMITMENT)

(T1, T2)

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 *MTH380*, students will be ready to study *MTH580*.

Prerequisite: *Successful completion of MTH280 with a grade of 4 or higher or placement by the department.*

■ **Elementary Functions**

MTH400

(T1)

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.*

Elective Courses

■ **Art and Mathematics**

MTH415 or ART415 (may be taken as a Math, Art, or Interdisciplinary course; official course number is INT508AM)

(T3)

One credit assigned in Mathematics, Art, or Interdisciplinary. How can mathematicians use art to create proofs and how can artists use math as a basis for concept and imagery? How can these connections help to clarify or develop both mathematical and artistic processes? Students in this class will be using math to generate designs and structures that will function as the starting point in the creation of unique and expressive works of art. Students can expect to complete three to four projects utilizing mathematical topics. The class will explore mathematical areas such as sequences, geometry, number theory, and transformations along with art studio processes such as painting,

collage, folding (origami), drawing, and building with welded wire. On-campus field trips will include the Addison Gallery, the Knafel Map Collection, and the Peabody Institute. (Ms. Zemlin and Ms. Buckwalter)

Prerequisite: *Open to Lower, Uppers, and Seniors who have completed MTH340. Completion of ART225 or a 300-level art elective is recommended but not required.*

■ **Introduction to Calculus**

MTH500A

MTH500B

(TWO-TERM COMMITMENT)

(T2, T3)

Primarily for Seniors. Topics include rates of change, limits, derivatives and antiderivatives.

Prerequisite: *MTH350, MTH400, or an equivalent course in trigonometry and elementary functions.*

■ **Calculus**

MTH510

(T1)

Primarily for Seniors. Topics include rates of change, limits, derivatives and antiderivatives.

Prerequisite: *MTH360 or its equivalent or permission of the department chair.*

■ **Calculus**

MTH520A

MTH520B

(TWO-TERM COMMITMENT)

(T2, T3)

This is a continuation of *MTH510*. 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 MTH510 or permission of the department.*

■ **AP AB Calculus I**

MTH560

(T3)

This is the beginning of the three-term calculus sequence that, together with *MTH570*, 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: *MTH360 or its equivalent, with no grade lower than a 3 in MTH340, 350 and 360.*

■ **AP AB Calculus II**

MTH570A

MTH570B

(TWO-TERM COMMITMENT)

(T1, T2)

This course continues the work of *MTH560* 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: *MTH560 completed with at least a 3 or MTH580.*

■ **AP Accelerated AB Calculus**

MTH575A

MTH575B

MTH575C

(T1, T2, T3) (THREE-TERM COMMITMENT)

A three-term commitment in calculus that begins only in Term 1. Satisfactory completion of this course prepares students for the College Board AB Advanced Placement exam. This course does not prepare students for *MTH650*.

Prerequisite: *MTH360 or its equivalent, with no grade lower than a 4 in MTH340, 350, and 360. Those students who do not meet this requirement should take either MTH510 or MTH530.*

■ AP AB Calculus III

MTH578

(T3)

This course is a continuation of the work in *MTH570*. 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 MTH570.*

■ AP BC Calculus I

MTH580

(T3)

This is the beginning of a four-term calculus sequence recommended for students who are **well prepared** in precalculus. With *MTH590* 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: *MTH360 or its equivalent, with no grade lower than a 4 in MTH340, 350, and 360. Those students who do not meet this requirement should take either MTH510 or MTH560.*

■ AP BC Calculus II

MTH590A

(T1)

This course continues the work of *MTH580* in preparation for the BC Advanced Placement examination. Topics include integration and applications of integral calculus.

Prerequisite: *MTH580 completed with a grade of at least a 4 or departmental permission.*

■ AP BC Calculus III

MTH590B

MTH590C

(TWO-TERM COMMITMENT)

(T2, T3)

A continuation of *MTH590*, finishing the syllabus for the BC Advanced Placement examination.

Prerequisite: *MTH590A completed with a grade of 3 or better, MTH570 or MTH575 completed with a grade of 5 or better, or permission of the department.*

■ AP Accelerated BC Calculus

MTH595A

MTH595B

MTH595C

(T1, T2, T3) (THREE-TERM COMMITMENT)

A three-term commitment in calculus that begins only in Term 1. Enrollment is limited to the most able mathematics students. Satisfactory completion of this course prepares students for the College Board BC Advanced Placement exam. In order to qualify for this course, returning students must perform satisfactorily on a special precalculus qualifying examination given in the previous Term 3.

Prerequisite: *MTH360 or its equivalent, with no grade lower than a 5 in MTH340, 350, and 360, plus permission of the department and demonstrated excellence on the MTH595 qualifying exam.*

■ Honors Mathematics Seminar

MTH630

(T1, T2, T3)

Term 1—Topology is the study of spaces that can be stretched, folded, and otherwise continuously distorted. The field is a foundationally logical and visual topic in mathematics with connections all across the world of current mathematical research. The class will be proof-based and include student presentations. It will also serve as an introduction to proof-based mathematics.

Topics to be covered include introductory set theory, metric spaces, topological spaces from so-called open sets, and the underlying properties of such spaces—such as covering and separation, countability, construction via bases, continuity, and connectedness.

Term 2—Journey Through Mathematics. This course will survey a series of influential theorems, considering not just their impact on the progression of mathematics, but also the life and times of the theorems' authors. Students will be able to sample a variety of mathematical fields and consider these concepts in the contexts of history and culture. The course will consist of readings, discussions, problem sets, short written assignments, and research projects.

Term 3—Computational Neuroscience. Computational neuroscience is a dynamic and highly active field that brings together ideas from mathematics, biology, physics, and computer science in order to better understand the brain. The Hodgkin-Huxley mathematical model for the firing of neurons, for example, was an outstanding achievement of 20th-century biophysics, and its creators were awarded the Nobel Prize in physiology or medicine for their work. In this course we will consider the mathematical dynamics of a single neuron, statistical characterizations of neural encoding and decoding, networks of neurons, and basic plasticity and learning. This course is recommended for students interested in neuroscience and cognitive science or artificial intelligence and brain machine interfaces, students interested in learning about statistics or differential equations in an applied context, and those curious to see how mathematical models can inform and be informed by experimental science.

Prerequisite: MTH590 or MTH595

■ **Multivariable Calculus and Linear Algebra**

MTH650A

(T1)

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 Term 2, 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: MTH590 or MTH595 and permission of the department.

■ **Multivariable Calculus and Linear Algebra**

MTH650B

MTH650C

(TWO-TERM COMMITMENT)

(T2, T3)

A continuation of MTH650A.

Prerequisite: MTH650A with a grade of 3 or better, or permission of the department.

Statistics

■ **AP Statistics I**

MTH530A

(T1)

The first term of a three-term 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: MTH350 or permission of the department.

■ **AP Statistics II**

MTH530B

MTH530C

(TWO-TERM COMMITMENT)

(T2, T3)

A continuation of MTH530, 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 MTH530A.

■ **Project-Based Statistics**

MTH531A (may be taken as a Math or Interdisciplinary course; official course number is INT509PSA)

MTH531B (may be taken as a Math or Interdisciplinary course; official course number is INT509PSB)

MTH531C (may be taken as a Math or Interdisciplinary course; official course number is INT509PSC)

(THREE-TERM COMMITMENT)

One credit assigned each term in Mathematics or Interdisciplinary. This is a community-based learning statistics course that will enable students to implement learned knowledge to work with communities. This curriculum-driven project contains a civic responsibility component that ties in with the concept of citizenship. Students will apply their knowledge immediately and beneficially as they “bring numbers to life” in collaboration with the PA community and local nonprofit organizations. For instance, students potentially would be able to collect, organize, interpret, analyze, and project data to help the Admissions Office, Dining Services, Brace Center for Gender Studies, College

Counseling Office, Archives and Special Collections, and other departments of interest at PA. Similarly, students can assist worthy causes in the wider community, working with those entities to tell stories with numbers.

Prerequisite: *MTH350 or permission of the department.*

Computer Courses

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

■ Programming Fundamentals

CSC350

(T1, T2, T3)

This course begins with an introduction to computational thinking and programming in a block-based language such as Scratch, then moves to programming in Python, JavaScript, Processing, or another text-based programming language. Students will learn about variables, functions, conditional statements (if-else), and iterations (loops) and will design and code their own programming projects. The course may include additional units such as programming Finch robots.

■ App Development

CSC450

(T1, T2, T3)

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. In Term 2, the topic of the course will be mobile app development for iOS with Swift.

Prerequisite: *(T2 only) One term of computer science or permission of department chair.*

■ Introduction to Discrete Mathematics and Programming

CSC470

(T2, T3)

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.

Prerequisite: *MTH330 or permission of the department.*

■ AP Computer Science I

CSC500A

(T1)

The first term of a three-term 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: *MTH340 or permission of the department.*

■ AP Computer Science II

CSC500B

CSC500C

(T2, T3) (A TWO-TERM COMMITMENT)

This course is the continuation of *CSC500*. 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: *CSC500A.*

■ Computer Science Research and Development

CSC600

(T2)

This course serves as an opportunity for students to explore their passion for the subject of computer science through research in the field and/or development of their own software projects. After learning the core tools and methodologies that are used in professional software

development and research, students will apply them to a project of their own creation. This will include a chance to grow in many areas related to the profession in addition to the software creation process, such as maintaining open-source software, self-directed learning, presenting on one's work and related topics, collaboratively developing and testing a codebase, and analyzing and critiquing the work of others.

Students should expect to spend a significant amount of time reading articles from scientific journals, understanding others' code and documentation, and/or performing market analysis. Students will regularly discuss the status of their project with classmates and present both on their work and on more general computer science topics learned for and leveraged in their projects. Some student work may be submitted for publication in a scientific journal or presentation at conferences.

Prerequisite: *One term of CSC630 and permission of the instructor.*

■ Honors Computer Science Seminar

CSC630

(T1, T2, T3)

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.

Term 1—Machine Learning: Machine learning is the process by which computers train themselves to make predictions and ultimately decisions based upon data. It is a subfield of artificial intelligence (AI) that plants its roots in computer science, mathematics, and statistics. In this course, students will use the Python programming language and many powerful Python libraries to construct predictive models. These models serve as the foundation for an incredible amount of current work done in the scientific, business, and economic disciplines. Effort will also be made to understand the ethical implications of AI. The course will be largely project-based and will include presentations.

Prerequisite: *CSC500 completed with a grade of 4 or better, or permission of the instructor.*

Term 2—Data Structures and Algorithms. 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, and 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.

Prerequisite: *CSC500 completed with a grade of 4 or better, or permission of the instructor.*

Term 3—Full Stack App Development

MUSIC

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 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.
- 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 complete the online 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 (*MUS225*, *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 *MUS225* who have not taken it by the end of lower year will take *MUS350* during upper or senior year to fulfill their introductory music diploma requirement. Students who matriculated as Juniors or Lowers and placed into *MUS235* 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 *MUS400* and who wish to take the entire yearlong Advanced 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 *MUS350*, a 300-level elective, or *MUS400*, 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.

Any students who place into *MUS400* may opt instead to take *MUS410* or *MUS460* as their first music course (with permission of the instructor).

The course into which each student is placed (*MUS225*, *235*, *350*, or *400*) serves as the prerequisite for all electives. Exceptions are noted in the descriptions below.

Introductory Courses

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

■ *The Nature of Music A*

MUS225

(T1, T2, T3)

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*

MUS235

(T1, T2, T3)

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 *MUS225*, it will include more extensive experiences 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*

MUS350

(T1, T2, T3)

MUS350 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. Open to Uppers and Seniors. See “Music Placement” for more information. This course is not open to students who have taken an introductory music class at Andover (*MUS225*, *-235*, *-400*).

Intermediate Electives

■ **Jazz History**

MUS310

(T2)

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.

■ **Survey of American Popular Music**

MUS320

(T3)

American popular music has appeared in many forms throughout its history, from the early examples in minstrel shows and blues to the vast array of styles we hear today. Students in this class will learn the roots of American popular song, and then explore the emergence of Rock and Roll and its various musical offspring through assignments that include readings, writing, and casual experiments in performance. Aside from discussion of the musical content of each style period, the class will also examine social and political issues that have influenced and inspired these artists.

■ **Survey of Music History**

MUS330

(T1, T3)

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 a previous version of *MUS330* are not eligible for this course. (Mr. Lorenzo)

■ **Electronic Music**

MUS360

(T2, T3)

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. Students must reserve three two-hour private work sessions in the studio per week. This course does not focus on popular music. *MUS360*, if failed, cannot be made up by examination. (Mr. Monaco)

■ **Film Scoring: Influencing Audiences through Sound and Silence**

MUS370

(T3)

In this course, students will study film music primarily through compositional exercises, as well as analysis of films from various genres and time periods. 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 20th century. Students will then compose music for film scenes from different genres, such as drama, horror, romance, and action/adventure. Students will be expected to manage an imaginary budget used to hire musicians, studio rentals, etc., and will compete with each other for film scoring "jobs." Though this course will primarily focus on music from the 20th century to the present, students also will learn about how certain composers connected music to visual images in classical concert music prior to 1900. (Ms. Landolt)

■ **Heart & Soul: A Songwriting Workshop**

MUS380

(T2)

Popular music plays an important role in our modern culture: it can provide an escape from our daily lives and influence our thoughts and actions. *MUS380* will begin by exploring popular songs from artists such as Taylor Swift, Bruno Mars, and Beyonce, as well as those of other artists from Motown to the present day. We will study songs from a variety of genres—including jazz, blues, rock, R&B, folk, and country western—as a way of building a foundational understanding of popular music. In addition to frequent songwriting exercises, students will write four original songs in the genre of their choice with particular focus on the musical attributes needed to support both the genre and the specific topic of each song. (Ms. Barnes)

■ Musical Theatre

MUS390 or THD390 (may be taken as a Music, Theatre, or Interdisciplinary course; official course number is INT301MT)
(NOT OFFERED IN 2018–2019)

One credit assigned in Music, Theatre, or Interdisciplinary. Open to any student (no prerequisites). *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. (Dr. Siegfried)

Advanced Electives

■ Introduction to Theory and Composition

MUS400

(T1, T3)

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. Those taking this course in the fall are encouraged to combine it with *MUS540* and *MUS550* to form a three-term Advanced Music Theory sequence. Students will begin composing near the end of the term, but it should be noted that most compositional activity will occur in *MUS540* and *MUS550*.

■ The Musical Brain

MUS410

(T2, T3)

What playlists do you create to accompany you through the parts of your day? How does the music we choose shape the personal and communal tapestry of our daily lives? The Musical Brain explores why music matters so much to us as individuals and as a species. Through reading assignments, listening assignments, and classroom activities we'll explore the rapidly evolving field of inquiry and research in music perception and cognition. Topics will include the science of sound, the biological origins of music, relationships between music and language, and the sources of music's emotional impact. (Dr. Aureden)

Prerequisite: Successful completion of a music course at the 200 level or above. Students who have placed into *MUS400* may opt to take *MUS410* instead.

■ Advanced Electronic Music

MUS460

(T2, T3)

This course continues to develop the skills and techniques introduced in *MUS360*. *MUS460*, if failed, cannot be made up by examination. (Mr. Monaco)

Prerequisite: *MUS360* or permission of the instructor.

■ Chamber Music Performance Seminar

MUS500

(T3)

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 *MUS400*. Because different literature is studied each term, this course may be taken more than once.

Prerequisite: Permission of the department.

■ Intermediate Theory and Composition

MUS540

(T2)

Continuing from where *MUS400* 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: *MUS400 or permission of the instructor.*

■ **Advanced Theory and Composition**

MUS550

(T3)

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: *MUS540 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. Students wishing to receive academic credit for their ensemble participation are expected to discuss their wishes with their ensemble director prior to selecting the course. A full list of expectations and responsibilities is available through the music department.

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 (*MUS900* through *MUS906*) cannot be counted toward fulfilling the diploma requirement in the arts.

■ **Chorus**

MUS900

(T1, T2, T3)

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. If they have not sung in the chorus before, they may take the course for credit only with the permission of the instructor. (Dr. Siegfried)

■ **Fidelio Society**

MUS901

(T1, T2, T3)

Open to all classes. This small group of mixed voices is selected from the chorus (*MUS900*). 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 *MUS901* and *MUS900* simultaneously, but only one will be for credit. This course, if failed, cannot be made up by examination. (Dr. Siegfried)

■ **Band**

MUS902

(T1, T2, T3)

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. (Mr. Monaco)

■ **Jazz Band**

MUS903

(T1, T2, T3)

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.

■ **Corelli Chamber Ensemble**

MUS904

(NOT OFFERED IN 2018–2019)

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. (Ms. Aureden and Ms. Barnes)

■ **Amadeus Chamber Ensemble**

MUS905

(T1, T2, T3)

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. (Dr. Aureden and Ms. Barnes)

■ **Chamber Orchestra**

MUS906

(T1, T2, T3)

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. (Dr. Jacoby and Ms. Landolt)

■ **Private Instrument and Voice Lessons**

MUS909

(T1, T2, T3) (NON-CREDIT)

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, guzheng, and voice. Students can also take private lessons in composition or conducting.

There is an additional fee for private lessons; information regarding this fee is available through the Department of Music. Piano, organ, harp, and percussion players are assessed a fee of \$35 per term for use of instruments. The Academy owns many other instruments that may be rented for \$35 per term.

NATURAL SCIENCES

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 three-term 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.

Biology

Most Juniors will take *BIO100* as their introductory science course. Uppers and Seniors are placed in *BIO501* or *BIO581* by the department chair. In general, students who have had three-terms of biology and a 6 in *CHM250* (or equivalent), a 5 or higher in *CHM300* (or equivalent), or a 4 or higher in *CHM500*, *550*, or *580* (or equivalent) will be placed in the *BIO580* sequence.

■ Introduction to Biology

BIO100A

BIO100B

BIO100C

(T1, T2, T3) (THREE-TERM COMMITMENT)

This course is for Juniors. *BIO100* 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

BIO420

(T1)

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

BIO421

(T3)

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**

BIO450

(T2)

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**

BIO501

(T1)

Open to Uppers and Seniors. This is the first term of a three-term sequence covering advanced topics in biology. Term 1 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 Term 1 to learn about Andover ecology. The three-term 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 BIO501, 502, and 503 senior year. Students who received an average grade of 6 in CHM250, 5 or 6 in CHM300, or a grade of 4 or higher in CHM501, 502, 503, 550, or 580 should take BIO581 instead. Final decisions about placement in BIO581 will be made by the department chair.*

■ **Topics in Advanced Biology II**

BIO502

(T2)

A continuation of *BIO501*. This is the second term of the *BIO501, 502, and 503* year-long three-term sequence covering advanced topics in biology. Term 2 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 BIO501 or equivalent.*

■ **Topics in Advanced Biology III**

BIO503

(T3)

A continuation of *BIO502*. This is the third term of the *BIO501, 502, and 503* sequence covering advanced topics in biology. Term 3 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 BIO501.*

■ **Cellular Biology**

BIO581

(T1)

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 *BIO501, 502, and 503*.

Prerequisite: *A grade of 6 in CHM250, a 5 or higher in CHM300, or a 4 or higher in CHM500, 550, or 580. The department chair will make final decisions about placement of students in BIO501 or BIO581.*

■ **Human Anatomy and Physiology**

BIO582

(T2)

Includes 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 *BIO501, 502, and 503*.

Prerequisite: *BIO581 or permission of the instructor and the department chair.*

■ Evolution and Ecology

BIO583

(T3)

Includes 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 *BIO501*, *502*, and *503*.

Prerequisite: *BIO581* or permission of the instructor and the department chair.

■ Molecular and Cellular Biology: Laboratory Research I

BIO600A

BIO600B

(T1, T2) TWO-TERM COMMITMENT

This elective is open to Seniors. *BIO600* meets eight class periods (four double periods) a week, requiring extensive work both in and out of the laboratory. As such, students enrolling in *BIO600* may take a maximum of four additional courses. Six-course loads will not be awarded to students enrolling in *BIO600*, 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, *Caenorhabditis elegans*, and *Daphnia pulex*. 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.

Note: It is strongly recommended that students interested in *BIO600* attend one of the information sessions offered by Dr. Marshall-Walker and Dr. Kemp during the spring scheduling period. Dates and times for these sessions will be listed on PAnet.

Prerequisite: Completion of one year of chemistry and one year of 500-level biology, with grades of 4 or above. Completion of, or concurrent enrollment in, one year of 400 or 500-level physics. Completion of *BIO600* with a grade of 4 or above is required for enrollment in *BIO620*.

■ Molecular and Cellular Biology: Laboratory Research II

BIO620

(T3)

Students may continue work from *BIO600* in *BIO620*. *BIO620* meets eight class periods (four double periods) a week, requiring extensive work both in and out of the laboratory. As such, students enrolling in *BIO620* may take a maximum of four additional courses. Six-course loads will not be awarded to students enrolling in *BIO620*, unless the sixth course is a 900-level music course.

Students will complete their experimentation and analyze their data 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.

Prerequisite: Completion of *BIO600A* and *BIO600B*.

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 *CHM250* and *CHM300* series is generally based on concurrent mathematics placement. Students who wish to take the Chemistry AP exam may prepare for it by taking *CHM500*, *550*, or *580*.

■ Introduction to Chemistry

CHM250A

CHM250B

CHM250C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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 *CHM580* series.

Corequisite: Registration in *MTH210* or above.

NOTE: This course is NOT open to Juniors.

■ College Chemistry

CHM300A

CHM300B

CHM300C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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 MTH320 or above, with the exception of those students enrolled in MTH280.

Prerequisite: Grade of 4 or above in previous term of mathematics and previous algebra course. Students not registered for MTH320 or above or MTH280 but who have a 6 in their previous math class may enroll in CHM300A.

NOTE: Juniors who do not maintain an 85% average on the first two tests in CHM300A will be switched to BIO100A immediately.

■ Advanced Placement Chemistry

CHM500A

CHM500B

CHM500C

(NOT OFFERED IN 2018–2019)

CHM500 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 CHM550 or 580 must sign up for those classes. Students not eligible for CHM550 or CHM580 who wish to take a second year of chemistry should sign up for this course after taking physics.

Prerequisites: One year of chemistry (either CHM250 or CHM300) and one term of PHY400A.

■ Accelerated Advanced Chemistry

CHM550A

CHM550B

CHM550C

(T1, T2, T3) (THREE-TERM COMMITMENT)

This course is not open to students who have taken CHM300 or its equivalent, or to Juniors, with the exception of those Juniors enrolled in MTH650. 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. The syllabus of this course is appropriate preparation for the College Board Subject Test.

Prerequisite: Grade of 5 or above in each term of CHM250. Students with no previous chemistry who are in MTH380 or above may enroll in this course. Students with no previous chemistry who are in MTH360 or below may enroll in this course only with permission from the department chair.

Prerequisite: Grade of 5 or above in the previous mathematics course.

■ Advanced College Chemistry

CHM580A

CHM580B

CHM580C

(T1, T2, T3) (THREE-TERM COMMITMENT)

CHM580 is a rigorous advanced second-year general chemistry course that thoroughly prepares students for the Advanced Placement examination, but also includes college-level topics beyond the AP syllabus. Students are expected to arrive in class having thoroughly reviewed and mastered all the basic introductory material from CHM300. This allows more time and emphasis to be devoted to advanced topics, patterns of chemical reactivity, and laboratory investigations. The instructor provides detailed readings to help students with the CHM300 review process. A highlight of CHM580 is the investigative laboratory program. Each week, students are presented with a problem to solve in the lab. Given only a list of available equipment and a few guidelines, students must design an experiment and record all necessary observations and measurements to solve the problem.

Prerequisite: Grade of 6 in each term of CHM250 or a 5 or above in each term of CHM300.

■ Organic Chemistry

CHM610

CHM620

(T1, T2)

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.

Prerequisite: Completion of either CHM500 with a 6 or above each term, CHM550 with a 5 or above each term, or completion of CHM580 with a 5 or above each term, or with permission from the department chair. CHM610 is a prerequisite for CHM620.

Interdisciplinary Science

■ Environmental Science: Global Climate Change

SCI410 (may be taken as a Science or Interdisciplinary course; official course number is INT501GC)

(T3)

One credit assigned in Science or Interdisciplinary. Open to Seniors and to Uppers who have completed three-terms of laboratory science. This course may be taken in addition to or independently of SCI420 and/or SCI430. 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. (Mr. MacKinson)

■ Environmental Science: Food, Agriculture, and the Future

SCI420 (may be taken as a Science or Interdisciplinary course; official course number is INT501FA)

(T1)

One credit assigned in Science or Interdisciplinary. 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 SCI410 and/or SCI430. 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, provide an introduction to environmental economics and policy, 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. (Mr. MacKinson)

■ Water and Humanity

SCI430 (may be taken as a Science or Interdisciplinary course; official course number is INT502WH)

(T2)

One credit assigned in Science or Interdisciplinary. Open to Seniors and to Uppers who have completed one year of laboratory science.

Water and Humanity 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. 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. (Mr. MacKinson)

■ **Love That Dirty Water: The Global Sanitation Challenge**

SCI435

(T3)

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. (Mr. Mundra)

■ **Dynamic Earth: Introduction to Earth System Science**

SCI450

(T3)

This course provides an introduction to the Earth system by focusing on the intersection of the geosphere, biosphere, hydrosphere, and atmosphere. We will explore the links between these systems by studying both current processes and events from the deep geological past. Primarily project based, the course will involve components of fieldwork, lab work, computer-based exercises, and research/presentations. Project topics could include air quality research, watershed chemistry/ecology, water-rock interaction as it relates to groundwater pollution, and the biogeochemistry of forested ecosystems. (Mr. Wall)

■ **Neurobiology of Learning, Memory, and Sleep**

SCI465

(T1)

Open to Uppers and Seniors. Students will investigate the biological systems of learning, memory, and sleep in the human brain, first through a cognitive neuropsychological lens and later with greater focus on the cellular neuroplasticity underlying memory consolidation. Questions guiding the course include: How have we, as a species, evolved to learn? What are the biological purposes for the various memories we carry forth, and how can we hack our own neural networks to become better learners? We're vulnerable when we fall asleep, so why do we do it at all? Specifically, why do we need sleep for our brains to function properly, and what are the actual biological costs of our sleepless nights?

Students will complete a series of papers and projects, through which they will demonstrate both their understanding of, and ability to share, practical learning strategies within the Andover community. A central goal for the course is the development of SCIENTIFIC LEARNERS, *informed* regarding the neuroscience of learning, nimble in their *experimentation* with new learning approaches, and willing to engage in the periodic personal *reflection* necessary to assess their ever-changing habits of mind. (Dr. Marshall-Walker)

This will most likely be added as an Interdisciplinary Course.

■ **Human Origins (may be taken as a Science or Interdisciplinary course; official course number is INT510HO)**

SCI470

(T1)

One credit assigned in Science or Interdisciplinary. 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. Human Origins includes weekly field or laboratory work outside of the classroom; 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. (Dr. Wheeler)

■ **Natural Causes: How Climate Change Wrote History**

SCI476 (may be taken as a History, Science, or Interdisciplinary course; official course number is INT507NC)

(T2)

One credit assigned in History, Science, or Interdisciplinary. Open to Uppers and Seniors. The impact of human activity on the behavior of the earth's climate has become one of the overriding concerns of the modern world, making climate change the central environmental problem of our time. Anticipating the impact of climate change on modern civilization, however, is not an easy exercise. Past climate change can help us to understand it as a catalyst for change that humans were not aware of, and can then help us to decide the role humans have played in the current environmental situation.

Through a series of case studies, we will investigate how civilizations have been influenced by weather and climate change. Starting with a historical overview of broad changes in climate, students will investigate specific instances when weather has influenced the course of history. How, for example, did winter weather protect Russia from invasion by first Sweden, then Napoleonic France and Nazi Germany? We will then expand our scope to examine the larger and longer-term influence of climate shifts on the course of regional civilizations such as the Maya in Central America, the Tang Dynasty in China, and the Harappan/Indus Valley civilization. The third group of case studies will examine the impact of global climate shifts on the interaction between civilizations on a continental scale. Examples could include the rise

and spread of the Mongol civilization from central Asia to Eastern Europe and eastern Asia. We will end the term by examining the possible consequences of climate change on the future course of modern civilization.

Physics

■ Introduction to Physics

PHY100A

PHY100B

PHY100C

(T1, T2, T3)

A yearlong laboratory science course exclusively for 9th-graders (Juniors) who enter the Academy in MTH100. Topical in nature, this course explores phenomena ranging from the motion of objects under various conditions to the nature of electromagnetic radiation and the energy balance of the earth. After understanding important aspects of our own planet, students turn their gaze skyward, using the observatory and considering questions about space exploration and the physical conditions required for extraterrestrial life. While grounded in physics, the course also ventures into interdisciplinary territory, laying the foundations for later work in the science curriculum. Through inquiry-based laboratory exercises, students gain deeper insight into the nature of science generally and build quantitative skills that complement their work in our math curriculum.

■ Introduction to Physics

PHY300A

PHY300B

PHY300C

(T1, T2, T3) (A THREE-TERM COMMITMENT)

This course is open to Lower, Upper, and Seniors. Its main purpose is to understand how scientists view the world by becoming scientists ourselves. We will observe physical phenomena in the world around us and study them as scientific events. The course explores basic topics in mechanics, electricity, and magnetism. Using these topics, students will learn about the scientific process and quantitative problem-solving. After completing this course, students are allowed to take *PHY400* or *PHY550* if they meet the math prerequisite. This course does not provide an appropriate preparation for the College Board Subject Test in physics.

Corequisite: Registration in MTH210 or higher.

■ College Physics I

PHY400A

(T1)

This is the first term of non-calculus physics course, covering classical mechanics in Term 1. 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 *PHY400A*. However, for students who have completed a Chemistry sequence prior to enrolling in Physics, those who have earned a 4 or better in *CHM250*, or have completed *CHM300* or *CHM550* should enroll in *PHY400A*. Those who have completed *CHM250* with less than a 3 should enroll in *PHY300*. Students who have previously completed *PHY300* can enroll in *PHY400A*.

Corequisite: Registration in at least MTH280 or MTH330 (or permission of the department chair if in MTH320 in Term 1).

■ College Physics II

PHY400B

PHY400C

(T2, T3) (A TWO-TERM COMMITMENT)

A continuation of *PHY400A*. 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 Term 1 *PHY400A*.

■ Robotics

PHY420

(T1, T2, T3)

This course is open only to postgraduates in the fall and is open to all students in the winter and spring. Students wishing to take *Robotics* for multiple terms may do so with the permission of the instructor. Students will create an independent robot capable of complex behavior by the end of the term while exploring all the different aspects of robot design and how they come together in the creation of a robot, including ethical and cultural elements surrounding the use of artificial intelligence. A hands-on, project-based course, students will use the engineering process to engage in science-driven decision making, and review physical concepts involved in the design and construction of a robot.

■ Astronomy

PHY440

(T1, T2, T3)

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 MTH340.

■ Astrobiology: Life Among the Stars

PHY445 (may be taken as a Physics or Interdisciplinary course; official course number is INT506AB)

(T3)

One credit assigned in Physics or Interdisciplinary. We invite you to embark on a journey to explore the field of astrobiology, the study of the origin, evolution, and distribution of life in the universe, on and beyond planet Earth. We will begin our exploration by studying the fundamentals of relevant sciences—physics, astronomy, chemistry, and biology—and will then apply these sciences to understand the potential requirements and limitations of life on Earth as well as on other planets and moons in our solar system. As we learn about historical and current efforts to detect life on these bodies, we will consider objects resident in our own solar system, including Mars, the moons of Jupiter, the moons of Saturn, and other solar system bodies such as Ceres and Pluto. Next, we will expand our view to include other possible abodes of life outside of our solar system as discovered by modern astronomers and modern instrumentation (i.e., the Hubble and Kepler space telescopes). Finally, we will examine the role of fictional alien biology on the human imagination through literature, film, and music.

■ Electronics

PHY520

(T2)

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 or concurrent enrollment in PHY400 and completion of MTH360.

■ Astronomy Research

PHY530

(T1, T2, T3)

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.). The class will meet four 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: PHY440

Corequisite: Completion or concurrent enrollment in MTH510 or MTH570 or higher. Students may enroll in PHY530 for multiple terms; scheduling preference will be given to students who are currently enrolled in PHY530. Students not meeting the prerequisite or corequisite may take the course with the permission of the instructor.

Advanced Courses

■ Calculus-Based Physics

PHY550A

PHY550B

PHY550C

(T1, T2, T3) (THREE-TERM COMMITMENT)

PHY550 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 MTH590 or who have completed MTH575, and (b) have earned a 4 or higher in their two most recent terms of math. PHY400 is also an option for these students.

■ **Foundations of Modern Physics**

PHY600

(T3)

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.

Prerequisites: *Concurrent enrollment in PHY550 or completion of PHY580, and enrollment in at least MTH590.*

■ **Fluid Mechanics**

PHY630

(T1)

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.

Prerequisite: *Completion of MTH590 or -595, and PHY550 or -580.*

■ **Physics Seminar**

PHY650

(T2)

The focus of this course is intermediate mechanics. Topics will vary according to the interests of the instructor and the students.

Prerequisite: *Completion of MTH590 and Term 1 of PHY550 or PHY580.*

Elective Courses Recently Taught, but Not Offered in 2018–2019

■ **The Root of It All: Plants in the Modern World**

BIO430

■ **Sense of Place**

SCI405

■ **Bioethics: Humanity in the Post-Genomic Era**

SCI445

■ **Physical Geology**

PHY450

■ **Field Experiments: Putting Good Intentions to the Test**

SCI465

■ **Darwin's (R)Evolution**

SCI475

■ **Disease and Medicine in the United States: Pox and Pestilence**

SCI480

HSS480

■ **The Brain and You—A User's Guide**

SCI490

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-term 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**

PHR300

(T3)

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 Lower, but are also open to Uppers.

■ **Religions of the Book: Judaism, Christianity, and Islam**

PHR310

(T1, T2, T3)

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 be introduced to the origins and history of each tradition. They 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 Lower, but are also open to Uppers.

■ **The Bible and Its Contexts**

PHR330

(T2)

Open to Uppers and Seniors, and to Lower with permission of the instructor. While no text has been more influential in the shaping of Western culture than that of the Bible, the origins of this text are surprisingly enigmatic. Due to the fact that the Bible is a composite text, it reflects a wide range of perspectives spanning thousands of years. As such, the primary aim of this course will be to orient students toward the various religious, political, social, and cultural contexts that shaped the formation of the biblical text. Who were the biblical authors? How did their biases shape what was (and wasn't) included in the Bible's narrative? Is there only one God? Did God have a wife? Who was Mary Magdalene, and what was her role in early Christianity? How does the biblical narrative continue to shape the manner in which we think today? This course assumes no prior understanding of or engagement with the biblical text.

■ **Introduction to Ethics**

PHR340

(T1, T2, T3)

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 Lower, but are also open to Uppers.

■ **Proof and Persuasion**

PHR360

(T1, T2, T3)

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 Lower, but are also open to Uppers.

■ **Views of Human Nature**

PHR370

(T1, T2, T3)

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 Lower, but are also open to Uppers.

■ **Faith and Doubt**

PHR380

(T1)

Open to Uppers and Seniors, and to Lower with permission of the instructor. How do human beings seek meaning? Are there shared responses to fundamental questions about God, identity, friendship, and our place in the world? In what ways, if at all, are our responses shaped by race, gender, sexuality, and religious identity? This course will examine narrative, philosophy, and film in its efforts to make sense of various human responses to these questions. Possible texts may include *Night*, by Elie Wiesel; *The Fire Next Time*, by James Baldwin; *Euthyphro*, by Plato; *The Color Purple*, by Alice Walker; Descartes' *Meditations*; and the Bhagavad Gita.

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

PHR410 (may be taken as a Philosophy/Religious Studies or Interdisciplinary course; official course number is INT536RA)

(T1)

Open to Uppers and Seniors, and to Lower 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?

■ **Pilgrimage, Journey, and Quest**

PHR415

(T3)

Open to Uppers and Seniors, and to Lower with permission of the instructor. The word pilgrim comes from the Latin *peregrinus*, meaning "foreign" and can be loosely defined as "one who journeys in foreign lands." Indeed, pilgrimage is a deeply cross-cultural phenomenon, not only appearing in a variety of religious traditions such as Islam, Christianity, and Hinduism, but also in more "secular" venues, such as Disney World, Burning Man, and Washington D.C. What exactly is pilgrimage then? Who goes on pilgrimage? What is pilgrimage supposed to do? To what extent is pilgrimage a physical experience? An internal one? Texts may include *A Sense of Direction* by Gideon Lewis-Kraus, *The Narrow Road to the Interior* by Basho, and *The Autobiography of Malcolm X*.

■ **Responses to the Holocaust**

PHR420

(T2)

Open to Uppers and Seniors, and to Lower 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**

PHR430

(T1, T3)

Open to Uppers and Seniors, and to Lower 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**

PHR440

(T3)

Open to Uppers and Seniors, and to Loweres with permission of the instructor. What are the strengths and limits of nonviolent social movements? How have people who have sought to bring about change done so, both in America and around the world? This course will explore responses to these questions by drawing upon resources from philosophy, religious studies, and history. We will consider several case studies, including Gandhi's India, the Civil Rights Movement in America, and more recent events around the world, including Black Lives Matter and the rise of nationalism in America and abroad. We will look at proponents and critics of movements for nonviolent social change and will also reflect on the question of what engaged citizenship looks like in democracy today.

■ **Ethics: Medicine**

PHR460 (may be taken as a Philosophy/Religious Studies or Interdisciplinary course; official course number is INT538ME)

(T1)

Open to Uppers and Seniors, and to Loweres with permission of the instructor. Modern medical research and practice present society with new opportunities and significant challenges. Students in this course will look at various case studies at the intersection of medicine, scientific research, health care, and ethics. Possible case studies may include debates about abortion, euthanasia, animal rights, and broader environmental implications of scientific and material progress in the 21st century. Classical and contemporary philosophers will be read as part of our investigation into these topics.

■ **Feminist Philosophies**

PHR480 (may be taken as a Philosophy/Religious Studies or Interdisciplinary course; official course number is INT534FP)

(T2)

Open to Uppers and Seniors, and to Loweres with permission of the instructor. This course will address feminist moral and political theories. There is no singular 'feminism', and feminists disagree with each other on the answers to many of those moral and political claims. We will survey a variety of feminisms, including liberal and radical feminisms, womanism, and others. The course will also cover topics including sex and gender, the nature of oppression, intersectionality (including discussions of race, disability, gender identity, and class), and sexual ethics. Special topics will be chosen by students for further focus, but could include topics such as body shaming, trafficking, or understandings of masculinity.

■ **Existentialism**

PHR500

(T1, T2)

Open to Uppers and Seniors, and to Loweres with permission of the instructor. 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, freedom, and choice that confront humans in everyday life. Class discussions and readings are designed to help us locate and express these problems as they confront each of us in our own lives. This includes topics such as self-knowledge, self-deception, bad faith, subjectivity, rationality, and value. Readings incorporate both literary and philosophical texts—classical and contemporary—that span across a range of thinkers who share a concern for these problems. These may include works by Fyodor Dostoevsky, Søren Kierkegaard, Friedrich Nietzsche, Jean-Paul Sartre, Simone de Beauvoir, and others.

■ **Great Philosophical Questions: Ethics and Technology**

PHR520 (may be taken as a Philosophy/Religious Studies or Interdisciplinary course; official course number is INT535ET)

(T2, T3)

Open to Uppers and Seniors, and to Loweres with permission of the instructor. From the use of fire to written natural and computational languages to advances in agriculture, weaponry, industry, science, medicine, communication, and artificial intelligence, human technologies have transformed our world. They also have added new complexities to the challenge of answering fundamental philosophical questions such as: What can we know? How should we act? For what can we hope? What is a human being? Seminar participants will explore a variety of answers offered by thinkers, past and present, who can help us reflect well on the nature and worth of efforts to extend our understanding and our power through technology.

■ **Advanced Topics in the Study of Religion**

PHR530

(T2)

Global Buddhism: Past, Present, and Future. Open to Uppers and Seniors, and to Loweres with permission of the instructor. Prince Siddhartha's awakening gave rise to wide-ranging and diverse religious traditions that spread throughout Asia and, in time, across the world. This course will explore some of the internal diversity of Buddhism by focusing on specific historical moments and case studies. We will begin by looking at female nuns in ancient India, meditator-hermits in medieval Tibet, and anti-Colonial activists in 19th- and 20th-century Southeast Asia. We will then turn our attention to the present day, where possible case studies could include anti-Muslim Buddhist fundamentalism in Myanmar, the global popularity of the Dalai Lama, and the rise of mindfulness meditation in America.

■ **Global Islams**

PHR535 (may be taken as a Philosophy/Religious Studies or Interdisciplinary course; official course number is INT537GI)
(T1, T3)

Open to Uppers and Seniors, and to Lower with permission of the instructor. With nearly two billion adherents globally, Islam is one of the fastest growing religious traditions in the world today. Yet, with less than 1 percent of the U.S. population identifying as Muslim, it is also one of the most misunderstood. What is Islam? Where is it practiced? What do Muslims believe? This course aims to introduce students to the vast internal complexities of the Islamic tradition through a combination of primary and secondary sources in history, scripture, law, art, and popular culture. In addition to exploring the origins of the tradition in the Middle East and its subsequent expansion, students will also examine a variety of contemporary issues, such as the rise of Islamophobia in West; the role of gender, jihadist, and fundamentalist movements; and Muslim immigration in the United States.

Elective Courses Recently Taught, but Not Offered in 2018–2019

■ **Applied Logic**

PHR405

■ **Pilgrimage: Sacred and Secular**

PHR415

■ **Religion, Literature, and the Arts: *The Inferno***

PHR450

■ **Justice and Globalization**

PHR510

PHYSICAL EDUCATION

All three- and four-year students are required to complete *PHD200* by the end of the lower year.

■ **Physical Education**

PHD200

(T1, T2, T3)

For Lower—*PHD200* is designed to teach lifetime wellness. Emphasis is placed on self-improvement and personal challenges, and an indoor ropes course provides students with an opportunity for challenge-based learning. Because *PHD200* is a Pass/Fail course, effort is the critical factor in determining a student's performance. Each student is expected to participate fully in discussions, in the fitness center, in the pool, and on the ropes course. In addition, the Department of Physical Education partners with the wellness team from the Sykes Wellness Center to cover topics such as hygiene, healthy relationships, and drugs and alcohol; safe decision making and personal responsibility are stressed.

■ *Psychology: An Introduction*

PSY420

(T3)

Psychology informs our daily lives in innumerable ways. We make decisions based on what we believe to be true about ourselves and about the world. But how do we arrive at these beliefs? How much are we influenced by the genes we've inherited, the ways we were raised, the stories we've been told, the sociopolitical forces that surround us? For centuries great thinkers have researched and explained what makes us who we are. In *PSY420*, we will explore some of the most compelling theories of human behavior, from unconscious mental conflicts to mirror neurons. This one-term seminar course introduces areas of study within the broad field of psychology. Through reading, writing, and class discussions, we will examine psychological research, developmental psychology, clinical psychology, psychological assessment, and topics in neuroscience. In addition, students will research peer-reviewed journal articles and write a paper in American Psychological Association (APA) format. Seniors only.

THEATRE & DANCE

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 four faculty-directed productions a year (one per term) through our *THD901* and *THD920* courses. 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 Lower 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

THD210

(T1, T2, T3)

Open to Lower and Juniors only, 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.

■ Introduction to Dance

THD211

(T2)

Introduction to Dance is designed for students who have never studied ballet or modern dance in depth and to be taken in conjunction with dance as a sport. This course will investigate the underlying principles of these forms. Students will learn the historical beginnings and technical developments, along with the basic terminology and the fundamental building blocks of these disciplines. While this course will put modern and ballet in a cultural context, the focus of the course will be dance technique and the marriage of skills with an understanding of terms, kinesthetic principles, and aesthetic styles. (J. Wombwell)

■ Acting I

THD310

(T1, T2, T3)

Open to Uppers and Seniors, 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

THD320

(T1, T2, T3)

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**

THD321

(T1, T2, T3)

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**

THD325

(T2)

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, whimsy) 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. Josef)

■ **Theory and History**

THD330

(T3)

Immigration and Theatre—This *THD330* course will explore how U.S. immigration has evolved over time. Students will investigate the intersection of American Theatre and immigration, grappling with questions such as: What it means to be an American? Who is a citizen? What does citizenship mean? What are the benefits of citizenship? Students will also examine how the answers to the previous questions change over time and are expressed on stage. (Mr. Grimm)

■ **Directing**

THD360

(T3) (NOT OPEN TO JUNIORS)

Since directing plays is the most complex of theatrical tasks, this course will focus on methods to unlock the life of a script in the realization of production. Studies will include historic styles and productions, emphasizing their staging. Students will learn the dynamics of floor plans and their effect on blocking, the potentials for lighting and its effect on mood, the importance of rhythm and spectacle, and strategies to harness them. While no class on directing can function without including discussion of the actor's craft, this class will only touch on this area. (Mr. Grimm)

■ **Choreographic Elements**

THD365

(T3)

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. Wombwell)

Prerequisite: *Previous dance experience or permission of the instructor.*

■ **Stage Craft**

THD380

(T3)

Open to Lower and Juniors only. 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. (Mr. Josef)

■ **Musical Theatre**

THD390 or MUS390 (may be taken as a Theatre, Music, or Interdisciplinary course; official course number is INT301MT)

(NOT OFFERED IN 2018–2019)

One credit assigned in Theatre, Music, or Interdisciplinary. Open to any student (no prerequisites). *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. (Dr. Siegfried)

■ **Public Speaking**

THD420

(T1, T2, T3)

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)

■ **Acting II**

THD510

(T1, T2)

By audition only. This course is designed for students with acting experience and a serious commitment to the art form. Students will build on their existing skills through in-depth character work and scene study, pushing their understanding of themselves and acting by exploring challenging scenes and exercises. Special emphasis will be placed on the performance of subtext, compositional texture, and character analysis through verbal and nonverbal communication in a rigorous rehearsal setting.

Prerequisite: *Previous completion of THD210 or completion of THD900-level course.*

■ **August Wilson's View of the 20th Century: His Pittsburgh, Our America**

THD531 or ENG531AW (may be taken as a Theatre, English, or Interdisciplinary course; official course number INT511AW)

(T1)

One credit assigned in Theatre, English, or Interdisciplinary. This course will use a selection of August Wilson's plays to investigate how our society's view of race changed during the 20th century. Students will move through Wilson's plays in chronological order, focusing on the Aunt Ester plays in the Century Cycle in both a literary and theatrical way. This section will give students a glimpse into Wilson's fictionalized Pittsburgh and insights into a more historically accurate Pittsburgh and America, as well as the man as a playwright. Students will look for connections between Pittsburgh and other American urban environments, examining how cities changed during the 20th century. This course is open to Seniors; it may be taken by Uppers with permission from the department chair. (Mr. Grimm)

■ **Andover Dance Group for Credit**

THD900

(T3)

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.*

■ **Studio Production**

THD910

(T3)

By audition only. This course is composed of the students' performance of a faculty-directed play or musical in a workshop setting. This show will be a part of the department's season and can vary from contemporary to classical plays (including Shakespeare), and small-scale musicals. Plays will be chosen with the intent to expand our ability as a department to present a wider array of the human experience. Consideration will be given to World Language and bilingual works.

■ **Play Production**

THD920PP

THD920DP

THD920AP

(T1, T2, T3)

By audition only. This course is comprised of the performance of a faculty-directed, full-length production. All students are invited to audition.

THD920PP, Play Production, Term 1—*Welcome to Arroyos*, by Kristoffer Diaz. Two DJs spin, remix, and tell the story of Alejandro Arroyo's new Lower East Side lounge and his sister Molly's graffiti habit in this family comedy about music, community, and the love of both. Auditions will take place during Opening of School and will be noted on the Opening of School Schedule. (Directed by Mr. Grimm)

THD920DP, Dance Production, Term 1—*Nutcracker*. Andover's own enchanting holiday classic ballet. Auditions will take place during Opening of School and will be noted on the Opening of School Schedule.

THD920PP, Play Production, Term 2—*She Kills Monster*, by Qui Nguyen. A surprisingly sweet tale of friendship, loss, and acceptance that tells the story of Agnes Evans, a young woman grieving for her deceased sister. Auditions will take place during the advising period for Term 2. (Directed by Mr. Grimm)

THD920MT, Musical Production, Term 3—*Songs for a New World*, by Jason Robert Brown. It's about one moment. It's about hitting the wall and having to make a choice... or take a stand... or turn around and go back—these are the stories and characters of today, the Songs for a New World. Auditions will take place during the advising period for Term 3. (Director TBA, music direction by Dr. Seigfried)

THD920PP, Play Production, Term 3—*Hamlet*. A tragedy written by William Shakespeare and set in Denmark, the play dramatizes the revenge Prince Hamlet is called to wreak upon his uncle, Claudius, by the ghost of Hamlet's father, King Hamlet. Auditions will take place during the advising period for Term 3. (Directed by Mr. Heelan)

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**

THD901

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 *Directing (THD360)* will be eligible to direct a *THD901* project.

Prerequisite: *Permission from the department.*

■ **Advanced Studies in Dance Performance**

THD902

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: *THD365 or THD370, and project approval from the department.*

■ **Advanced Studies in Technical Theatre Production**

THD903

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 *THD920* 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: *THD320, 321, or 326, and project approval from the department.*

Elective Courses Recently Taught, but Not Offered in 2018–2019

■ ***Sound in the Theatre***

THD326

■ ***Performance Art: The Creative Self***

THD370

■ ***Play Writing***

ENG507PW

■ ***August Wilson’s View of 1900–1940s: His Pittsburgh, Our America***

THD531 or ENG531AW

■ ***August Wilson’s View of the Second Half of the 20th Century***

THD532 or ENG532AW

■ ***Choreography II***

THD565

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 terms at the 300 level. 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 at Phillips Academy a total of three levels in two different languages, as long as at least one is a "less commonly taught" language (Chinese, German, Ancient Greek, Japanese, or Russian). This alternative, the 2+1 path, must be done by successfully completing at least one full year in each language.

Placement of new students in all languages will be based on a provisional 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 head of World Languages. Credit for language proficiency from previous experience must be validated through at least one course at Phillips Academy. Details regarding various options and the diploma requirement as applicable to incoming Uppers and Seniors who begin a new language at Andover are available through 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, and some add a second or even a third language to their program.

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 language skills and on the literature, history, and various art forms of the people whose languages are being studied.

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.⁷⁵ [Return to Table of Contents](#)

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**

CHI100A

CHI100B

CHI100C

(T1)

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**

CHI110

(T1)

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**

CHI110A

CHI110B

(TWO-TERM COMMITMENT)

(T2, T3)

This course, a continuation of *CHI100* and *CHI110* First-Level Chinese, prepares students for *CHI200* the following year.

■ Accelerated Chinese Sequence

CHI120A

CHI120B

(TWO-TERM COMMITMENT)

(T2, T3)

Students will be recommended by the teacher for this accelerated course at the end of the first term of *CHI100* or *CHI110*. This course moves at a fast pace, and students are expected to do much independent learning outside of class. Successful completion of *CHI120* allows students to advance to *CHI220*. The *CHI100, 110, 220, 320* sequence covers three years of Chinese in two years.

■ Second-Level Chinese

CHI200A

CHI200B

CHI200C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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 CHI110 or equivalent.*

■ Accelerated Chinese Sequence

CHI220

(T1)

CHI220 follows *CHI120* and precedes *CHI320* as part of an accelerated sequence. Because of the fast pace, each student's progress will be closely monitored during Term 1 to see whether it is in his or her best interest to rejoin *CHI200* for the remainder of the year or to continue the accelerated sequence in *CHI320* in Term 2 and Term 3. 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 CHI120.*

■ Third-Level Chinese

CHI300A

CHI300B

CHI300C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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

CHI320A

CHI320B

(T2, T3)

This third-level course follows *CHI220* and continues the accelerated sequence of “three years in two” started in *CHI120*. 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

CHI400A

CHI400B

CHI400C

(NOT OFFERED IN 2018–2019)

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 CHI300 or equivalent.*

■ Accelerated Chinese Sequence

CHI420A
CHI420B
CHI420C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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 CHI320 or equivalent.

■ Advanced Chinese Sequence

CHI520A
CHI520B
CHI520C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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 CHI420 or permission of the department chair.

■ Advanced Topics in Chinese

CHI621
CHI622

CHI623 (may be taken as a Chinese or Interdisciplinary course INT516CH)

(T1, T2, T3)

This advanced yearlong course will have three term-based focuses. Throughout the year, students will be consistently immersed in authentic materials in order to gain an understanding of the constantly developing, changing landscape of modern Chinese society, including that of its overseas communities. Language acquisition is the main goal of this course, yet the integration of a variety of arts forms aims to develop critical thinking and empathy.

Prerequisite: Successful completion of CHI500 or CHI520, or permission of the department chair.

CHI621, Term 1—Screening Contemporary China: Chinese Language, Culture, and Society through Films. The goal of this course is to immerse students in authentic language and culture through Chinese films as a way to understand aspects of Chinese national and cultural identity. It is hoped that the course not only will help students cultivate a greater command of language over analysis and theorization of Chinese cinema, but also will help facilitate students' understanding of Chinese cinema and culture in the context of globalization.

CHI622, Term 2—Modern Chinese Theater. During this course, students will read, study, and perform an original Chinese play, *Thunderstorm* (Lei Yu), by iconic 20th-century Chinese playwright Cao Yu.

CHI623, Term 3—Chinatowns and the Asian American Immigrant Experience. One credit assigned in Chinese or Interdisciplinary. The goal for the course is for students, regardless of whether or not they are of Chinese descent, to gain a deepened understanding of the experience and the effects of Asian immigration into Northern California and beyond, through bilingual literature, archives, and film clips. As part of the coursework, students will self-reflect on the meaning of racial and cultural identity, especially against the histories of the Asian American experience. This term-based course is also experiential and will culminate in a class trip to the Bay Area or New York City.

Courses for Advanced Heritage Learners

■ Introduction to Chinese Literature

CHI440A
CHI440B
CHI440C

(T1, T2, T3)

This course is an introduction to Chinese literature designed for ninth- and tenth-graders with near-native fluency in spoken Chinese and a high level of familiarity with Chinese culture. Terms 1 and 2 offer an overview of the historical timeline and major themes of Chinese literature and an introduction to China's most representative literary works, from classical poetry to modern and contemporary writings. In Term 3, students will examine representative literary selections from various time periods in Chinese history. By analyzing and discussing readings in their historical context, students will also improve critical thinking and independent reading skills.

Prerequisite: Permission of the department chair.

■ Intermediate Reading in Modern Chinese

CHI541

CHI542

CHI543

(T2, T3)

In this course, students read, analyze, and discuss three famous Chinese novels: *To Live* by Hua Yu, *We Three* by Jiang Yang (Term 1), *San Ti* by Liu Cixin (Term 2), and *Fortress Besieged* by Qian Zhongshu (Term 3). In class discussions about the content, historical setting, and writing techniques used, students will explore and interpret the literal, philosophical, and cultural significance of these three books. By learning words and expressions in the authentic context of the writings, they will also gain an appreciation for the historical and cultural value of Chinese literature.

Prerequisite: *Completion of CHI440 or permission of the department chair.*

■ Modern China and Chinese Literature for Advanced Heritage Learners

CHI641

CHI642

CHI643

(NOT OFFERED IN 2018–2019)

CLASSICS

Greek

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.

■ ESA Beginning Attic Greek

CLA150A

CLA150B

(NOT OFFERED IN 2018–2019)

Beginning Attic Greek is a collaborative online class that employs both synchronous and asynchronous Web tools in teaching and learning. This course will not only 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. 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. Students will submit weekly work for assessment and self-evaluation to chart their own progress. There also will be some self-directed research projects, which will allow students to explore individual interests. This course is offered by the Eight Schools Association and is taught by an instructor from Phillips Academy. ESA students may take the course for the first term or for the full year.

■ ESA Beginning Attic Greek

CLA250

(NOT OFFERED IN 2018–2019)

A continuation of *CLA150*. Successful completion prepares students for *CLA400*.

■ Accelerated Greek Sequence

CLA400A

CLA400B

CLA400C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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: *CLA250 or corequisite: LAT300.*

■ **Etymology**

CLA410

(T2, T3)

Open to Uppers and Seniors or by permission of the department chair. English has an immense vocabulary (far larger than that of any other language), over half of which is based on Latin and Greek roots. The words of this Greco-Roman inheritance are best understood not simply as stones in the vast wall of English, but rather as living organisms with a head, body, and feet (prefix, main root, and suffix), creatures with grandparents, siblings, cousins, foreign relatives, life histories, and personalities of their own; some work for doctors and lawyers, others for columnists, crusaders, and captains of commerce. Systematic study of a few hundred roots opens the door to understanding the meanings and connotations of tens of thousands of words in English, the language now rapidly emerging as the most adaptable for international and intercultural communication.

■ **The Art of Persuasion**

CLA420

(T1)

This course is open only to Seniors. Since well before the rise of rhetoric as a discipline, the art of persuasion has been a powerful tool for those who are skilled in its use. In this writing-based course, students will examine the use of language (and images) by people whose goals, livelihoods, or even lives depended upon persuading others. From logographers in the courtrooms of fifth century BCE Athens to present-day politicians, lawyers, advertisers, and confidence players, people who can wield language have immense power over those unaware of its subliminal influence. This course is at the same time traditionally academic (we will begin with the study of Aristotle) and also immediately practicable (we will end by critiquing modern media strategies).

■ **Greek: Homer and Classical Authors**

CLA500A

CLA500B

CLA500C

(T1, T2, T3) (THREE-TERM COMMITMENT)

CLA500 is the department's offering for students to read, at an advanced level, seminal texts from the corpus of Greek literature. Students have the opportunity to read, in the original Greek, selected works of Homer, Lysias, Euripides, Herodotus, or Plato. Authors will be chosen by the instructor in consultation with the students in the class. As always, we will pay attention to points of grammar and syntax, but will also endeavor to connect the literature to the contemporary Greek culture at the time and, perhaps more importantly, to our own.

Prerequisite: *CLA400*

■ **The Epic Tradition**

CLA551 (may be taken as a Classics or Interdisciplinary course; official course number is INT523ET)

(T1)

One credit assigned in Classics or Interdisciplinary. 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**

CLA552 (may be taken as a Classics or Interdisciplinary course; official course number is INT524WA)

(T2)

One credit assigned in Classics or Interdisciplinary. 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**

CLA553 (may be taken as a Classics or Interdisciplinary course; official course number is INT525AT)

(T3)

One credit assigned in Classics or Interdisciplinary. 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*

LTN100A

LTN100B

LTN100C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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*

LTN150A

LTN150B

LTN150C

(T1, T2, T3) (THREE-TERM COMMITMENT)

This course covers in one year the essential elements of *LTN100* and *LTN200*.

■ *Second-Level Latin*

LTN200A

LTN200B

LTN200C

(T1, T2, T3) (THREE-TERM COMMITMENT)

During Term 1, the linguistic and cultural approach of *LTN100* 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 Term 2 and Term 3, students read selections from Caesar, Livy, and Ovid.

■ *Third-Level Latin: Livy, Catullus, Cicero, Vergil*

LTN300A

LTN300B

LTN300C

(T1, T2, T3) (THREE-TERM COMMITMENT)

Students begin Term 1 with a thorough review of the Latin language in conjunction with correlated reading passages. In the latter half of Term 1, students read selections from Livy or Cicero. In Term 2, 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 Term 3, 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*

LTN520A

LTN520B

LTN520C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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 LTN300 or permission of the department.*

■ **Advanced Latin Authors**

LTN601

LTN602

LTN603

(T1, T2, T3)

This is primarily a literature course that explores works in the original Latin.

LTN601, Term 1—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.

LTN602, Term 2—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.

LTN603, Term 3—While students in *LTN601* have some choice about the authors and readings for Term 3, they will begin with several selections from Ovid's *Metamorphoses*.

Prerequisite: *The prerequisite for any term of LTN601 is a 5 or above in LTN520. An additional prerequisite for LTN603 is a 5 or above in LTN601 or LTN602.*

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**

FRE100A

FRE100B

FRE100C

(T1, T2, T3) (THREE-TERM COMMITMENT)

This course is designed for those students who have had little or no previous world language experience and those who are not sufficiently prepared for the second level course. 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.

■ **Second-Level French**

FRE200A

FRE200B

FRE200C

(T1, T2, T3) (THREE-TERM COMMITMENT)

For students who have completed *FRE100*, 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.

■ **Third-Level French**

FRE300A

FRE300B

FRE300C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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; *Séquences*, Bissière)

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

FRE401

FRE402

FRE403

(T1, T2, T3)

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 FRE300.*

■ **Crossing Cultures and Blurring Boundaries**

FRE411

FRE412

FRE413

(T1, T2, T3)

In this contemporary literature-based course, students will consider the idea of difference and belonging, in both cultural and social contexts. During the year students will read novels, short stories, and articles from the media, and watch films, documentaries, and short clips pertaining to our theme. The class will discuss what it is like to be an immigrant as well as the question of inclusivity and the search for identity in the face of perceived difference of any kind. There also will be an ongoing review of French grammar, and students will write regular papers, creative texts, and journal entries. Texts include *L'Étranger* (Albert Camus), *La Petite Fille de Monsieur Linh* (Philippe Claudel), *La Réveuse d'Ostende* (Eric-Emmanuel Schmitt), and *L'Élégance du Hérisson* (Muriel Barbéry). Films include *La Bataille d'Alger* (Gilio Pontecorvo), *Inch'Allah Dimanche* (Yamina Benguigui), *La Graine et le Mulet* (Abellatif Kechiche), *Welcome* (Philippe Lioret), *Samba* (Olivier Nakache et Eric Toledano), and *Le Hérisson* (Mona Achache).

Prerequisite: *Completion of FRE300.*

■ **French Civilization, Literature, and Cinema**

FRE520A

FRE520B

FRE520C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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 have included texts such as *Cyrano de Bergerac*, Rostand; *Candide*, Voltaire; *Béni ou le Paradis Privé*, Bégag; *Paul et Virginie*, Bernardin de Saint Pierre; and *Mercur*, Nothomb; and films such as *Le Grand Bleu*, Besson; *Les 400 Coups*, Truffaut; *Le Goût des Autres*, Jaoui; *Moi, Tituba, Sorcière*, Maryse Conde; and *Métisse Blanche*, Kim Lefèvre. These works may vary depending on instructor.

■ **Advanced Topics in French**

FRE621

FRE622

FRE623

(T1, T2, T3)

FRE621, Term 1—Louisiana Acadiana. This course explores the complex history of Louisiana (how it came to be, how it enriched the United States linguistically, artistically, culturally and contributed immensely to its multifaceted diversity, and how it actually increased its physical size following the Purchase of Louisiana). The course is a combination of language, literature excerpts, music, and cinema. The course also examines the roots and the making of Cajun and Zydeco Music of Louisiana by renowned artists such as Lee Benoit, Hadley Castille, Boozoo Chavis, Zachary Richard, Clifton Chewier, and the BeauSoleil musical group, among others. The culinary culture of Louisiana (such as Gumbo, Crawfish étouffée, Jambalaya, and Boudin balls) is also explored. Important landmarks, symbols, and festivities related to the identity of the people of Louisiana (the symbolism of the flag of Acadiana, the Bayous, the Marshes, the Atchafalaya, and the Mississippi River, French Quarter, Mardi Gras, Myrtles Plantations, Saint Louis Cemetery, etc.) are highlighted. The people who make Louisiana Acadiana so distinct is the unique American story, and those who speak what is popularly known as Louisiana French are at the center of the course. They include the Native American Nations of Houma, Biloxi, Tunica, Choctaw and Chitimacha, Cajuns, Acadians, Spanish, French, Blacks, Africans, Haitians, and French Creoles. The link between Francophone Canada (Quebec, Nova Scotia,

Saskatchewan, Prince Edward Island, etc.) and Louisiana is also highlighted in exploring the preservation of the language as well as the intertwined culture(s) of Acadiana and its diaspora.

Prerequisite: Completion of FRE520.

FRE622, Term 2—Translation and Interpreting. Do you trust what you read in translation? Should you? What can Google Translate do and not do? Can you do it better? Find out in this advanced seminar course that will lead you from the critical comparison of several translations of the same text to the theory and methodology of translation to doing your own translations from English to French (Version) and French to English (Thème). Learn how to judge translations as well as produce them professionally with reliable tools. Translate a wide variety of texts, such as news articles, literature, U.N. speeches, user's manuals, and popular songs. Become an official TED translator for your term project as you create and publish subtitles in translation for a TED Talk of your choice on the TED translator's interface Amara. In the process, we will review French grammar in depth and study contemporary idioms. At the end of the term, you will be ready to try the ultimate challenge of consecutive and simultaneous interpreting. Translation and interpreting are eye-opening practices as well as promising career options. Come try them out!

Prerequisite: Completion of FRE520.

FRE623, Term 3—French Philosophers and Current Events. In this seminar conducted entirely in French, you will connect the works of renowned French philosophers Descartes, Pascal, Voltaire, Rousseau, Foucault, Sartre, De Beauvoir, and Derrida, among others, to contemporary issues such as social justice, the science of genetics, or social media. We will use an actual philosophy textbook used in French high schools, paired with relevant news articles you will find. You will link the concepts and news reports in discussions and mediated debates, and then craft argumentative essays in French around each theme we tackle. You will produce short speeches designed to convince an audience of a theory discussed in class. You will be encouraged to find your voice in French, express yourself, and explore your own values to become an informed global citizen and critical thinker.

Prerequisite: Completion of FRE520.

German

The German Department offers courses at six different levels, from beginning through Advanced Placement and beyond. At all levels, current events, film, songs, poetry, and theatre enhance the study of grammar, reading, writing, listening, and speaking. During the school year, there is a weekly “language table” in the dining hall where students can practice listening and speaking skills. Beginners through native speakers are welcome to pull up a chair! No prior world language experience is necessary to begin the study of German; many students discover that learning German enhances their comprehension of English grammar.

Study abroad opportunities facilitated by the German Department include a three-week homestay program offered by the American Association of Teachers of German and the Tang Institute's Berlin Week (a Learning in the World program) in June, as well as the Congress Bundestag Gap Year program.

■ First-Level German

GER100A

GER100B

GER100C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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. *GER100* offers significant daily structure and support in order to facilitate successful language learning. Current text: *Deutsch Aktuell 1*, 7th edition, digital version supplemented by digital exercises, contemporary films, songs, and adapted short stories.

■ Accelerated First-Level German

GER150A

GER150B

(T2, T3) (TWO-TERM COMMITMENT)

Open to students who have completed Term 1 of *GER100* with distinction and who have been recommended by their instructor. Superior work in this course enables students to enter *GER250* the following fall, followed by *GER300A* in Term 2 and *INT300* in Term 3, 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*, 7th edition, digital version; supplemented by video, digital exercises, contemporary films, poems, songs, and adapted short stories.

■ Second-Level German

GER200A

GER200B

GER200C

(T1, T2, T3) (THREE-TERM COMMITMENT)

Open to students who have successfully completed *GER100* 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*, 7th edition, digital version; supplemented by digital exercises, contemporary films, songs, and adapted short stories.

■ Accelerated Second-Level German

GER250

(T1)

Open to students with strong language-learning skills who have completed *GER150* 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 *GER300B* in Term 2.

■ Third-Level German

GER300A

GER300B

INT300 (may be taken as a German or Interdisciplinary course; official course number is INT300)

(T1, T2, T3) (THREE-TERM COMMITMENT)

One credit assigned in German or Interdisciplinary.

GER300A, Term 1—Open to students who have successfully completed *GER200* or its equivalent. This course continues to develop language skills in speaking, listening comprehension, reading, and writing. Greater emphasis on classroom discussion as well as short essay writing is introduced. Current text: *Vater und Sohn*, by E.O. Plauen. This is the first course in the yearlong sequence of *GER300A*, *GER300B*, *INT300*.

GER300B, Term 2—Open to students who have successfully completed *GER300A* or *GER250* or its equivalent. The emphasis this term is on vocabulary building, reading, and more advanced grammar (introduction of relative clauses, the subjunctive and the passive). Current text: The novel *Emil und die Detektive*, by Kästner.

INT300, Term 3—**Berlin: From Imperial Capital to Weltstadt. One credit assigned in either German or Interdisciplinary.** This course is open to students who have successfully completed *GER300B*. Term 3 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*, related newspaper articles, and music selections will provide students with the grammar and vocabulary that will 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

GER401

GER402

GER403

(T1, T2, T3)

Open to students who have successfully completed *GER300* 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.

GER401, Term 1—Grammar; *Biedermann und die Brandstifter* by Frisch

GER402, Term 2—Grammar, short stories, concrete poetry, film

GER403, Term 3—Film, current events, Goethe's poem *Erlkönig*

Prerequisite: *GER300* or permission of the department chair.

■ Advanced Fourth-Level German

GER520

(T1)

The first term of a yearlong sequence, this course is open to students who have successfully completed *GER300* 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 *GER300*. 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: *Biedermann und die Brandstifter* by Frisch

Prerequisite: GER300 or permission of the department chair.

■ Advanced Fourth-Level German

GER520A

GER520B

(T2, T3) (TWO-TERM COMMITMENT)

This course is a continuation of *GER520* 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.

GER520A, Term 2—Grammar, short stories, concrete poetry, film

GER520B, Term 3—Film, current events, AP preparation, and Goethe's poem *Erlkönig*

Prerequisite: *GER520* or permission of the department chair.

■ Advanced Topics in German

GER601

GER602

GER603

(T1, T2, T3)

Open to students who have successfully completed three terms of fourth-level German or *GER520*, 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. This allows students to take the course two years in a row.

Materials for 2017–2018: *Die Physiker* (Dürrenmatt), *Das Versprechen* (Dürrenmatt), short stories (Kafka), current events, and film. Offered only if there is sufficient enrollment.

Greek—see Classics

Japanese

■ First-Level Japanese

JPN100A

JPN100B

JPN100C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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

JPN200A

JPN200B

JPN200C

(T1, T2, T3) (THREE-TERM COMMITMENT)

Open to students who have successfully completed first-level Japanese or its equivalent. A continuation of *JPN100*, 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

JPN300A

JPN300B

JPN300C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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**

JPN400A

JPN400B

JPN400C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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**

JPN520A

JPN520B

JPN520C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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.

■ **Advanced Japanese**

JPN601

JPN602

JPN603

(T1, T2, T3)

Advanced Japanese is offered upon approval of the department chair.

Latin—see Classics

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 and students begin Russian coming from all sorts of backgrounds—some having studied another world language, others not. 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 *RUS150* after the first term of *RUS100A*. 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**

RUS100A

RUS100B

RUS100C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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**

RUS130

(T3)

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**

RUS150A

RUS150B

(NOT OFFERED IN 2018–2019)

Open to students who have completed *RUS100A* with distinction and who have been recommended by their instructor. Superior work in this course enables students to enter *RUS250* to begin the second year, followed by *RUS300B* and *RUS300C* subsequent, thereby completing three years of Russian language in two years. An accelerated course in grammar, speaking, listening comprehension, reading, and culture. Texts: the same as those of *RUS100* and *RUS200*.

■ **Second-Level Contemporary Russian**

RUS200A

RUS200B

RUS200C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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 RUS100.*

■ **Accelerated Second-Level Russian**

RUS250

(T1)

Open to students with strong learning skills who have completed *RUS150* or its equivalent with distinction. This accelerated course completes the work of *RUS200* with the addition of intensive grammar review and writing. Successful completion of this course qualifies students to enter *RUS300B*. Texts: the same as those of *RUS200* and *RUS300A*.

■ **Third-Level Russian**

RUS300A

RUS300B

RUS300C

(T1, T2, T3) (THREE-TERM COMMITMENT)

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 RUS200 or RUS250.*

■ **Fourth-Level Russian**

RUS401

RUS402

RUS403

(T1, T2, T3)

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 RUS300.*

■ **Advanced Fourth-Level Russian**

RUS520A

RUS520B

RUS520C

(T1, T2, T3) (THREE-TERM COMMITMENT)

The core materials of the course are similar to those used in Fourth-Level Russian. The work will be more in depth than the 400 course.

Prerequisite: *Honors grades in RUS300 or permission of the department chair.*

■ **Advanced Topics in Russian**

RUS601

RUS602

RUS603

(T1, T2, T3)

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 third term works with a historical docudrama of the Stalinist period in the Soviet State.

Prerequisite: Successful completion of RUS403 or RUS520.

Spanish

The Department of Spanish offers a six-year course of study. 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 Tang Institute, learning in the world programs.

■ **First-Level Spanish**

SPA100A

SPA100B

SPA100C

(T1, T2, T3) (THREE-TERM COMMITMENT)

This course is designed for language learners who enter at the Novice Low category according to ACFTL standards and, over the course of the year, will prepare learners to reach the Novice High to Intermediate Low status. This course emphasizes interpersonal, presentational, interpretive, and intercultural modes of communication evenly and makes use of authentic sources of input and rigorous forms of output. All class work is conducted in Spanish.

■ **Second-Level Spanish**

SPA200A

SPA200B

SPA200C

(T1, T2, T3) (THREE-TERM COMMITMENT)

This course is designed for language learners who enter at the Novice High category according to ACFTL standards and, over the course of the year, will prepare learners to reach Intermediate Mid status. This course emphasizes interpersonal, presentational, interpretive, and intercultural modes of communication evenly and makes use of authentic sources of input and rigorous forms of output. All class work is conducted in Spanish.

■ **Third-Level Spanish**

SPA300A

SPA300B

SPA300C

(T1, T2, T3) (THREE-TERM COMMITMENT)

SPA300 is a course for students who have completed *SPA200* or have been otherwise placed at this level in Spanish by demonstrating an intermediate-mid level of proficiency, as described by the ACTFL proficiency scale.

Term 1—Students read authentic texts from a variety of genres: poetry, songs, short stories, a short play, newspaper opinion articles, and cartoons, essays, and interviews. Created by prestigious authors, all of them are thematically connected around the notions of self, otherness, identity, equity, social inclusion and exclusion. All the grammar notions and communicative functions presented are closely intertwined with the texts.

Term 2—Students read authentic texts from a variety of genres: poetry, songs, short stories, newspaper opinion articles, and reports. All of them have a common topic: children's rights. As in Term 1, all the linguistic input is derived from or connected with the texts.

Term 3—Students read the *Chronicle of a Death Foretold*, written by Nobel Laureate Gabriel García Márquez. As they become acquainted with one of the most beloved Latin American writers, students have the opportunity to explore for the first time a long, complex literary text in Spanish. This reading also allows for a discussion of some cultural and social issues pertaining to Latin American reality.

Advanced Courses

■ **Current Events and Multimedia: Approaches to the Hispanic World**

SPA401

SPA402

SPA403

(T1, T2, T3)

SPA401, Term 1—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.

SPA402, Term 2—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 Term 1 *SPA401*. Daily class participation is essential.

SPA403, Term 3—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 Term 1 and Term 2. Class requirements include essays and oral class presentations. Daily class participation is essential.

■ **Introduction to Hispanic Literature**

SPA411

SPA412

SPA413

(T1, T2, T3)

Each term 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.

SPA411, Term 1—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.

SPA412, Term 2—In this term, the focus is on Spanish and Spanish American drama and contemporary Hispanic poetry.

SPA413, Term 3—A Hispanic novel will be read in its entirety. Recent texts include *Cien Años de Soledad* (García Márquez), *La Casa de los Espíritus* (Allende), *Don Quijote, Part I* (Cervantes), and *Arráncame la Vida* (Mastretta).

■ **Advanced Spanish Language Colloquium**

SPA501

(NOT OFFERED IN 2018-2019)

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.

Prerequisites: Completion of SPA401, 411, or 521. Students with fewer than three terms of prerequisite courses should seek approval from department chair.

■ **Immersion in Lawrence, The Immigrant City**

SPA502 (may be taken as a Spanish or Interdisciplinary course; official course number is INT527LA)

(NOT OFFERED IN 2018-2019)

One credit assigned in Spanish or Interdisciplinary. (Tuesday, periods 3 and 4; Thursday, periods 3, 3e, 4, 4e). 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.

Prerequisites: Either completion of SPA401, 402, 403, 411, 412, 413, or 501 or native/heritage Spanish-speaking background, with instructor's permission.

■ **Community Engagement in the City of Lawrence: We, the People**

SPA503

(NOT OFFERED IN 2018-2019)

(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 Term 2's SPA502 (*Immersion in Lawrence, The Immigrant City*) to the practical in this Term 3 course. 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: *Limited enrollment: Preference is given to students who take SPA502 in Term 2, though students with considerable experience in Lawrence (i.e., on the level of Community Engagement coordinators) may seek departmental approval. Readings and a weekly journal are required in addition to the final project.*

■ **Understanding Latin America**

SPA521

SPA522

SPA523

(T1, T2, T3)

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 SPA401, 402, 403, 411, 412, 413, or 501. Students with fewer than three terms of prerequisite courses should seek approval from department chair.*

■ **“Our Americas”: Crossing Borders**

SPA621 (may be taken as a Spanish or Interdisciplinary course; official course number is INT528CB1)

SPA622 (may be taken as a Spanish or Interdisciplinary course; official course number is INT528CB2)

SPA623 (may be taken as a Spanish or Interdisciplinary course; official course number is INT528CB3)

(T1, T2, T3)

One credit assigned each term in Spanish or Interdisciplinary. In this post-Advanced 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.

SPA621, Term 1—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?

SPA622, Term 2—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 SPA501, 521, or 522 level, or by permission of the department chair.**

SPA623, Term 3—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.

Prerequisites: *Completion of SPA501, 502, 503, 511, 512, 513, or native/heritage Spanish-speaking background, with department chair's permission. Students with fewer than three terms of prerequisite courses should seek approval from the department chair.*