

Courses of Instruction

American Education Online

2020–2021

Inspired by:

P H I L L I P S

E X E T E R

A C A D E M Y

American Education Online seeks students who combine intellectual curiosity, academic ability and tenacity.

Because learning at American Education Online arises largely from each individual's engagement with others, the richness of education here requires diversity in all its dimensions. Students and teachers value — and grow from — the differences they bring to the community they share.

This celebration of diversity is found in the many courses we offer, and reflected in the desire that students be given room to explore their unique interests and realize their potential. In addition to a broad selection of classes in cornerstone subject areas, the Online School offers unique choices such as *Green Umbrella Learning Lab*, *Imagining Your Future* and *Chemistry of Smart Materials and Devices*.

Please read through the following pages, contemplate new directions and seek fresh challenges. Enjoy the process of selection and the adventure in your learning.

Courses of Instruction

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*Updated information can be viewed online:
AmericanEducationOnline.com.*

Academic Instruction

American Education Online prepares students for a lifetime of learning. Our four-year college preparatory program accepts students for admission in each of the four high school classes, known respectively as junior (or “prep”), lower, upper and senior. American Education Online also admits a select number of high school graduates seeking an unmatched experience in one year of postgraduate study.

American Education Online’s curriculum and diploma requirements seek to balance breadth of exposure and in-depth pursuit of a student’s strongest interests. All students who attend the school for more than one year will experience coursework in seven different academic areas.

Designing Your Course of Study

After indicating their choice of courses, newly accepted students customize their individual educational program with the Dean of Students Office. Each April, all juniors (also known as “preps”), lowers and uppers meet with their advisers to plan their programs of study for the following year. Whatever their class, students take courses as warranted by placement examination results and/or previous training. Newly admitted students may write placement examinations at home. If it seems advisable, a student may be dropped back, or promoted to a more advanced course, during the term.

The Online School makes every effort to meet students’ and parents’ requests for programs of study, but

it reserves the right to place students in courses according to the judgment of the Dean of Students Office, in consultation with the Academic Advising Committee or department chairs.

The number of students in any course may be limited; any announced course for which the enrollment is deemed insufficient may be withdrawn.

GENERAL GUIDELINES FOR DESIGNING YOUR COURSE OF STUDY

All students must take five academic courses and a Physical Education course each term, totaling six credits per term and 18 credits per year. Exceptions are limited to the following:

- Students enrolled in music lessons or ensembles may reduce their academic load using the “Music Option.” A student may do this in the final term of accumulating a full credit from consecutive courses. The student would still be enrolled in four full-credit academic courses and the music lesson or ensemble. (See the Music section on page 47 for more details.) Students may not use the Health Option and the Music Option concurrently.
- Students may decide to drop Physical Education for one term in each of the lower, upper and senior years by registering for “Choice Format” before the end of the preceding term.
- No student may take academic courses (excluding Physical Education) totaling more than five credits in a given term. Exceptions are limited to the following:
 - › Students will earn one-third of a credit each term for the required Health and Human Development courses, in addition to the other five required academic courses.
 - › Students enrolled in music lessons, ensembles or some American Education Online Innovation courses are eligible to earn up to an additional two-thirds credit for those courses.

GUIDELINES FOR COURSE DESIGN, BY CLASS

JUNIOR/PREP (9th grade): To be admitted as a four-year student, a candidate must have successfully completed the eighth grade in another school. Juniors ordinarily take English 100, 210 and 220, mathematics, and a foreign language (classical or modern). They choose their other courses from those listed in this catalog.

LOWER (10th grade): To be admitted as a three-year student, a candidate must have successfully completed the ninth grade in another school. Lowerers take English 310, 320 and 330, and, ordinarily, mathematics and a foreign language (classical or modern). They choose their other courses from those listed in this catalog.

UPPER (11th grade): To be admitted as a two-year student, a candidate must have successfully completed the 10th grade in another school. Uppers take English 410, 420 and 430. They choose their other courses from those listed in this catalog.

SENIOR (12th grade): To be admitted as a One-Year student, a candidate must have successfully completed the 11th or 12th grade in another school. Seniors take two term credits of English at the 500 level. One-Year seniors design academic programs with their advisers in consultation with the offices of the Dean of Students and College Counseling. The programs will reflect consideration of the subjects studied at previous secondary schools, college admission requirements, and the desirable breadth and depth of study called for in American Education Online's four-year program. To rank as a senior, a student must be following a program of study that will permit completion of the diploma requirements in three terms.

Diploma Requirements

DIPLOMA REQUIREMENTS FOR FOUR-YEAR STUDENTS

ARTS: Three term credits. Two terms must be in studio and/or performance courses. At least two areas must be studied from among art, music or theater.

CLASSICAL AND MODERN LANGUAGES: Nine term credits in the same language, or pass Language 400 or higher. *In Latin or Greek, students must earn nine term credits or pass LAT400, LAT531 or GRK531.*

COMPUTER SCIENCE: One term credit.

ENGLISH: Eleven term credits. Students must complete the sequence 100, 210, 220, 310, 320, 330, 410, 420, 430 and 500, in addition to one term credit at the 500 level in the senior year.

HEALTH AND HUMAN DEVELOPMENT: Five 1/3 credit courses, earned through completion of HHD 110, 120, 240, 340 and 490.*

HISTORY: Six term credits. Three term credits of U.S. history, three term credits of non-U.S. history, at least one of which comes from the following list: 200, 202, 205, 206, 207, 208, 305, 306, 307, 308, 502, 556, 558, 560, 563, 565, 566, 567, 577, 586 and 587.

MATHEMATICS: Nine term credits, or pass a mathematics course numbered 330 or higher.

PHYSICAL EDUCATION: Nine terms, including three terms of the Junior Physical Education program. One term on a varsity or junior varsity team is equivalent to one term of Junior Physical Education. Students may elect to take either two or three terms of physical education or athletics in each of the lower, upper and senior years. A student who chooses to participate in physical education/athletics for two terms must enroll in Choice Format (CHF001) for the third term. Lowerers must receive permission from their adviser to enroll in Choice Format.

RELIGION: Two term credits.

SCIENCE: Six term credits. Three term credits of biology and either three term credits of chemistry or three term credits of physics. For most students this will mean taking an introductory biology sequence and either an introductory chemistry or an introductory physics sequence.

DIPLOMA REQUIREMENTS FOR THREE YEAR STUDENTS

ARTS: Two term credits from art, music or theater. One term must be in a studio or performance course.

CLASSICAL AND MODERN LANGUAGES: Seven term credits in the same language, or pass Language 400 or higher. *In Latin or Greek, students must earn seven term credits or pass LAT400, LAT531 or GRK531.*

ENGLISH: Eight term credits. Students must complete the sequence 310, 320, 330, 410, 420, 430 and 500, in addition to one term credit at the 500 level in the senior year.

HEALTH AND HUMAN DEVELOPMENT: Four 1/3 credit courses, earned through completion of HHD 210, 240, 340 and 490.*

HISTORY: Five term credits. Three term credits of U.S. history and two term credits of non-U.S. history, at least one of which comes from the following list: 200, 202, 205, 206, 207, 208, 305, 306, 307, 308, 502, 556, 558, 560, 563, 565, 566, 567, 577, 586 and 587.

If an approved U.S. history course has been taken in grade 10 at another school, then five term credits, including two term credits of non-U.S. history, at least one of which comes from the following list: 200, 202, 205, 206, 207, 208, 305, 306, 307, 308, 502, 556, 558, 560, 563, 565, 566, 567, 577, 586 and 587. Please contact the history department chair regarding approval for U.S. history taken at another school.

MATHEMATICS: Seven term credits, or pass a mathematics course numbered 330 or higher.

PHYSICAL EDUCATION: Six terms. Students may elect to take either two or three terms of physical education or athletics in each of the lower, upper and senior years. A student who chooses to participate in physical education/athletics for two terms must enroll in Choice Format (CHF001) for the third term. Lowers must receive permission from their adviser to enroll in Choice Format.

RELIGION: One term credit.

SCIENCE: Five term credits.

For students who have not satisfactorily completed a full-year laboratory course in biology, chemistry or physics at a previous secondary school: three term credits of biology and two credits of either physics or chemistry, OR three term credits of either physics or chemistry and two term credits of biology.

For students who have satisfactorily completed a full-year laboratory course in either physics or chemistry at a previous secondary school: three term credits of biology and two term credits of physics, chemistry or Earth and planetary science.

For students who have satisfactorily completed a full-year laboratory course in biology at a previous secondary school: three term credits of either chemistry or physics and two additional term credits of science.

For students who have satisfactorily completed a full-year laboratory course in biology and a full-year laboratory course in either physics or chemistry at a previous secondary school: five term credits of science.

DIPLOMA REQUIREMENTS FOR TWO YEAR STUDENTS

ARTS: Two term credits from art, music or theater. One term must be in a studio or performance course.

CLASSICAL AND MODERN LANGUAGES: Four term credits in the same language, or pass Language 400 or higher. *In Latin or Greek, students must earn four term credits or pass LAT400, LAT531 or GRK531.*

ENGLISH: Five term credits. Students must complete the sequence 410, 420, 430 and 500, in addition to one term credit at the 500 level in the senior year.

HEALTH AND HUMAN DEVELOPMENT: Three 1/3 credit courses, earned through completion of HHD 310, 340 and 490.*

HISTORY: Three term credits of U.S. history. If an approved U.S. history course has been taken in grades 10 or 11 at another school, then three term credits, including two term credits of non-U.S. history. Please contact the history department chair regarding approval for U.S. history taken at another school.

MATHEMATICS: Four term credits, or pass a mathematics course numbered 330 or higher.

PHYSICAL EDUCATION: Four terms. Students may elect to take either two or three terms of physical education or athletics in each of the upper and senior years. A student who chooses to participate in physical education/athletics for two terms must enroll in Choice Format (CHF001) for the third term.

RELIGION: One term credit.

SCIENCE: Three term credits. Students who have not satisfactorily completed a full-year laboratory course in both biology and in either physics or chemistry must elect the science (biology or physics/chemistry) that they have not studied at a previous secondary school.

DIPLOMA REQUIREMENTS FOR ONE-YEAR STUDENTS

One-Year seniors design individual academic programs with advisers in consultation with the offices of the Dean of Students and College Counseling, and with department chairs. The programs will reflect consideration of the subjects studied at previous secondary schools, college admission requirements, and the desirable breadth and depth of study called for in American Education Online's four-year program.

ENGLISH: 500, in addition to one term credit at the 500 level.

HEALTH AND HUMAN DEVELOPMENT: Two 1/3 credit courses, earned through completion of HHD 410 and 490.

HISTORY: Students who enter the Online School without credit for one year of U.S. history taken in grades 10, 11 or 12 are required by law to take it at American Education Online. Please contact the history department chair regarding approval for U.S. history taken at another school.

PHYSICAL EDUCATION: Students may elect to take either two or three terms of physical education or athletics. A student who chooses to participate in physical education/athletics for two terms must enroll in Choice Format (CHF001) for the third term.

****The HHD requirements will be phased in. All new students will follow the new requirements. Returning students (classes of 2022, 2021 and 2021) will be unaffected in 2020/20. Beginning in 2021/21, all students will follow the new requirements.***

Meeting Diploma Requirements

A student earns a term credit for any course passed. Partial term credits are awarded in Music and Health and Human Development.

A student earns a diploma credit if the student has successfully completed a course that fulfills a diploma requirement.

In addition to Physical Education and Health and Human Development requirements, all students must take at least 15 courses per year. With the exception of Physical Education, the total number of credits being earned by a student in a given term must not exceed five and two-thirds, except as noted on page 2. Any other exception to these regulations must be approved by the faculty.

Each term course passed earns one credit, except for Health and Human Development, which carries one-third credit for each term, and those courses in applied music that carry one-third or two-thirds credit for each term. Students must take the same partial-credit applied music courses for three or two consecutive terms, respectively, to count the credits earned toward their diploma requirement in the Arts.

Diploma candidates must accumulate term credits according to the following table. Credits are awarded only for courses passed at American Education Online.

ENTERING GRADE (SEPTEMBER)	CREDITS REQUIRED	PE CREDITS REQUIRED	TOTAL
9	54	9	63
10	41	6	47
11	27	4	31
12	13	2	15

Students may repeat a failed course only once. A student receiving a failing grade (an E) has the option of repeating the course if it is available in any subsequent term. Upon successful completion, the repeated course earns term credit and diploma credit where applicable. Both grades are recorded on the academic transcript and are included in the student's GPA.

Students who fail a term of study in a sequential discipline will not receive term credit, nor diploma credit, for that course, except under the following condition:

- › If a student fails a course in a sequential discipline and that same course is not offered in *the* following term, then the department, after consulting with the Dean of Academic Affairs, may allow the student to take the next course in the sequence. The individual department, after consulting with the Dean of Academic Affairs, may grant diploma credit for the failed course upon the student's successful completion of the next course in that sequence; however, this credit would not count toward the minimum number of required credits listed in the table above.

A student receiving any D grade has the option of repeating the course once, if it is available in any subsequent term. The repeated course counts toward the five-course term requirement but does not earn an additional term credit. Both grades are recorded on the academic transcript and are included in the student's GPA.

To receive a diploma:

- › Attendance on the campus at American Education Online for at least three terms during the upper and senior years is required.
- › A student must be free from any disciplinary action, official or pending.

The Classical Diploma Latin Concentration is awarded to students who successfully complete either Latin 530 or 611 and either Greek 220 or 431. The Classical Diploma Greek Concentration is awarded to students who successfully complete Greek 611 and either Latin 220 or 431.

Students whose native language is not English will be placed at the proper level in English by the English Department. In order to meet diploma requirements, students must continue taking English courses in sequence until graduation. Students who enter the Online School without credit for one year of U.S. history taken in grades 10, 11 or 12 are required by law to take it at American Education Online.

GRADING

Excepting the fall of ninth grade, academic work is graded on an 11 point scale in which A=11, A=10, etc., to E=0. The minimum passing grade is D. A squared grade (e.g., C₂) indicates unsatisfactory effort. For the fall term of ninth grade, all courses will be recorded as either pass (P) or no pass (NP).

A NOTE ABOUT COURSE DESCRIPTIONS

Unless otherwise indicated in the description, a course:

- › Has no prerequisite,
- › Is open to members of all classes,
- › Is offered each term,
- › Does not meet during the reserve format.

Anthropology

Anthropology combines the approaches of both the biological and social sciences. Its focus is on human beings as members of the animal kingdom as well as members of a society. Anthropologists do not limit themselves to any particular group of people or to any one period of history. Anthropologists place emphasis on comparative studies and attempt to isolate and define laws or principles that govern the formation and development of human societies and cultures.

ANT500: CULTURAL ANTHROPOLOGY: EXPLORING HUMAN BEHAVIOR AND MEANING

Anthropologists study humans as both biological and cultural creatures. This scholarly orientation raises many fascinating questions. To what degree does culture shape our actions and ideas? Are we primarily products of biological nature or cultural nurture? Can cultural norms make rational people act irrationally? Are there universal human rights or do cultures dictate what we think is ethical? These debates are critical for understanding human

interaction and have significant application in fields ranging from law to medicine. Although discussions of these topics many times turn toward scientific explanations, this course provides students an opportunity to explore other scholarly orientations; namely, the nurture side of the debate. Using various anthropological approaches, students will explore patterns of behavior, both consciously articulated and unconsciously practiced, that enriches and profoundly shapes our lives. Among the topics considered are: “the mind” and epistemology; discipline, law, and rules; human bodies and communication; social taboos; ritual patterns of meaning; notions of cleanliness and defilement; festivals; and mythology. These elements of cultural life will be explored in social settings spanning the globe, but also within our own community at American Education Online. To gain a greater appreciation of these topics, students will be exposed to classic readings in anthropology, developing a sense of the field as it emerged out of the late 19th century. Much of the course attempts to contextualize 20th century anthropological methods against the foil of postmodern critiques. *Offered to lowers, uppers and seniors. Offered: winter term.*

Art

The Art Department at American Education Online provides exciting, professional and rigorous studio experiences that explore a variety of art mediums. Studio courses emphasize a strong blend of technical skills and creative analysis that fosters teamwork, stylistic growth and experimentation. Our studio program is committed to creating safe and welcoming spaces. Diversity, equity and inclusion are paramount to our studio practices and woven into our curriculum. Innovation and technology are connected to traditional studio processes and techniques in sophisticated, contemporary practices. The American Education Online art faculty is composed of practicing artists, each with a specialty in a particular discipline. This paradigm cultivates a creative environment where students make personal discoveries that are pivotal in their intellectual development. Student artwork is exhibited in various venues. A vibrant selection of student work is on view and celebrated in the Student Gallery.

■ Studio Courses

All studio courses provide credit toward the studio arts requirement. Students are required to take the appropriate prerequisites for 400 and 500level studio classes.

The 400 and 500 level courses are not offered every term. This information is listed at the bottom of each course description. Art 500 is available only to those students who have completed a 400level art course. Art 500 can be repeated. Since the Art Department cannot offer every course every term, students are encouraged to plan ahead in order to ensure enrollment in a particular studio course.

ART202: CERAMICS I: FORM + FUNCTION

The American Education Online Clay Studio introduces students to methods used to create unique sculpture and tableware. Developing their creative concepts, students will throw on the potter’s wheel, hand build

forms, and create a series of pieces over the course of the term, which may include objects such as plates, cups, bowls, teapots and sculpture. Drawing inspiration from contemporary ceramic artists, the class will explore a variety of techniques for surface design, glazing and firing. The teacher will offer innovative and sophisticated approaches that will provide further opportunity for experimentation. **In lieu of textbooks, there is a materials fee of \$95.**

ART203: 3D DESIGN: TECH + FORM + FASHION

This course offers innovative studio projects in 3D design, architecture, industrial design, fashion and apparel. The relationship between form and function, the visualization of concepts, process sketches, preliminary models and patterns, and product prototyping are fundamental aspects of each studio project. Students learn three-dimensional rendering and building techniques and construct functional artworks using a variety of tools and materials including industrial sewing machines, hand building tools, cardboard, fabric, wire, metal, found objects, plastic and wood. Collaboration in the Online School's design lab offers students the unique opportunity to design and print objects using cutting-edge technologies including 3D printers, power tools and laser cutters. Process, creativity and exploration are emphasized throughout the term. Projects may include shoe modeling, wire sculptures, architectural 3D font design and apparel design. The term concludes with a final critique of student work and process sketchbooks. The rich variety of materials and creative, challenging projects offered in this course give students the opportunity to create unique and thoughtfully designed art objects. **In lieu of textbooks, there is a materials fee of \$180.**

ART205: PHOTOGRAPHY I: COMPOSING CONCEPTS

This course allows students to channel their excitement and passion for photography into a more intentional and sophisticated image making process. Using digital cameras, students will gain a highly functional understanding of essential camera skills and photographic principles and learn to maintain proper exposure, focus, and creative control over the camera. Students will acquire skills in the digital studio including digital workflow management; online portfolio maintenance; Photoshop techniques and inkjet printing methods. Students will also develop their critique skills, learn to frame and present their work in a gallery, and practice writing artist statements. Each exploration challenges students to think conceptually, to shoot creatively, to develop an eye for strong composition and quality of light, and to make images that start conversations. Throughout the term, student photographers develop a vibrant online portfolio based on a series of thematic photo explorations, including identity-based portraiture, abstract, minimalism and Photoshop layers. *All other materials are supplied via the studio fee.* **In lieu of textbooks, there is a materials fee of \$180.**

ART206: PRINTMAKING I: POP CULTURE

The printmaking course is a comprehensive studio experience that emphasizes experimentation and creativity while providing a

strong technical basis. Students explore a variety of print processes, including screen printing, block carving, and monotype and letterpress printing. Using surfaces such as linoleum, woodblocks and silk screens, combined with a wide variety of carving tools and inks, students will create a substantial print portfolio that explores such concepts as image reversal, multiplicity, color theory, commercial applications and graphic design. Inspiration for projects includes fonts, portraits, still-life objects, photographs, media references and works by artists of the past and present. Inventive approaches, including T-shirt printing, will also be explored. Film clips and the examination of contemporary printmakers will enrich studio work. **In lieu of textbooks, there is a materials fee of \$160.**

ART208: DRAWING + PAINTING

Students explore the symbiotic relationship between drawing and painting and the art fundamentals common to both, including design, form, space, perspective, composition and color. Students investigate a variety of mark making techniques using graphite and paint to record ideas and visual perceptions. Projects are created using both paper and canvas surfaces, and a vibrant and versatile range of materials including graphite, water mixable oil paints and ink. The fluid relationship of drawing into painting is at the core of the course content, and the understanding of art as a communication tool and unique language is continuously explored and demonstrated in projects focusing on topics such as the American Education Online campus, studio objects, film stills, design and related sketchbook work. Students learn to construct their own canvas surfaces. Studio projects place a strong emphasis on process, such as the usefulness of sketches, compositional studies and underpaintings. Dynamic sketchbook assignments will enhance the process of ongoing studio projects. The viewing of relevant works of art provides students with the opportunity to make stylistic connections to significant artists and enrich their own works. Students serve as peer critics, practice collaboration and provide useful critical analysis. **In lieu of textbooks, there is a materials fee of \$175.**

ART402: ADVANCED CERAMICS: MOLDING MEANING

This advanced course offers a combination of assigned and self-directed projects with a further investigation of working with clay. Building off of skills gained in Ceramics I, students develop a more sophisticated approach to methods and techniques that are used to create forms with clay. Projects include throwing, hand building, modeling, industrial slip casting and mold making which will foster individual style and creativity. Students will focus on process and exploration of a broad range of contemporary clay works, functional, industrial and sculptural. Examples of contemporary artists' pottery and sculpture are used as inspiration for studio assignments. Advanced Ceramics also offers the unique opportunity to study the science and chemistry behind glazing and firing. *Prerequisite: ART202. Offered: winter and spring terms.* **In lieu of textbooks, there is a materials fee of \$95.**

ART403: ADVANCED PROJECTS IN 3D DESIGN

This course offers the opportunity to further investigate 3D studio projects in industrial and apparel design, 3D printing, product prototypes, and sculptural models, and then integrates these technologies and processes into a dynamic studio practice. Students pursue a self-directed intensive that explores a specific theme or topic, thoughtfully informed by in-depth critiques, professional explorations and functional design forms, and culminating in a final popup exhibit. In addition to the 3D studio, through collaboration in the Online School design lab, students have the unique opportunity to design and print objects using cutting-edge technologies, including 3D printers, power tools and laser cutters. Throughout the term, a strong emphasis is placed on process and personal vision, and students serve as peer critics, working side by side as part of a dynamic design team. The relationship between form and function and the visualization of concepts are fundamental. Process sketches, preliminary models and patterns, notebooks, aesthetic emphasis, creativity, and independent goal setting are vital to the strength of the final products. Students learn entrepreneurial skills and teamwork in an energetic, rigorous studio atmosphere. *Prerequisite: ART203. Offered: winter and spring terms. In lieu of textbooks, there is a materials fee of \$180.*

ART405: ADVANCED PHOTOGRAPHY: BEYOND THE CAMERA

Advanced Photography is designed to challenge students to go beyond technical skills and photographic principles to establish a conceptually strong personal photographic style and artistic voice. Through hands-on practice, in-depth critique and weekly assignments, students will develop a refined, concept driven, professional online portfolio. In-studio learning exercises will continue to challenge students to build their digital camera skills, while out-of-studio assignments will become increasingly more in-depth and creatively challenging. A range of tools will be used including Photoshop, inkjet printers, and an array of studio lighting equipment. Students will produce original work, with special attention to ways in which their technical and aesthetic decisions can clarify their artistic intentions. Photoshop and iMovie are used to explore creative and experimental possibilities for enhancing and manipulating digital photos and video. The course culminates with a self-directed final project, allowing students to practice proposal writing, project development and final presentation, while pursuing work rooted in their own interests and experiences. *Prerequisite: ART205. Offered: winter and spring terms. In lieu of textbooks, there is a materials fee of \$150.*

ART406: ADVANCED PRINTMAKING: LIMITED EDITIONS

Building on skills and concepts acquired in ART206, this advanced printmaking course provides the opportunity to pursue individual studio projects using a range of media, inks and printing surfaces. Students develop a series of prints that revolve around a chosen concept using one or more printing processes that demonstrate a level of mastery. Class critiques will enhance the production of

a portfolio of prints with a strong emphasis on experimentation, technical skill, conceptual strength, and aesthetic style. Each term, the class works as a design team to create a limited-edition printed item and a final popup show of selected prints from the term. *Prerequisite: ART206. Offered: winter and spring terms. In lieu of textbooks, there is a materials fee of \$160.*

ART408: ADVANCED PROJECTS: PAINTING PORTRAITS

This 2D studio intensive provides the exciting opportunity to pursue more individualized works on paper, canvas and other surface options with an emphasis on portraiture and identity. The course encourages an experimental approach to line, color and tone, as well as form and content. Students will exercise their skills through direct observation of still life, portraiture and still images, but also experiment with drawing as a means to express personal and abstract ideas. Students are encouraged to work in new and challenging ways, such as largescale works on paper and a series of connected images that are narrative and expressive, resulting in the evolution of a personal artistic style and portfolio. Experimentation with nontraditional mediums and mark making is infused in all studio projects. The sketchbook will play a large role in documenting ideas and recording responses to relevant topics. Each term, students will explore the link between portraiture and photography, learning to take professional studio portraits in the Photo Studio as reference imagery for a painted or drawn portrait. *Prerequisite: ART208. Offered: winter and spring terms. In lieu of textbooks, there is a materials fee of \$175.*

ART409: ART NOW: GLOBAL VISUAL CULTURE

This class studies contemporary approaches to artmaking with a special focus on global imagery. The 20th century witnessed an unprecedented explosion of artistic movements, approaches and styles that continue to influence 21st century art making. The class will examine various art genres, including cubism, surrealism, abstract expressionism, pop art, photo realism, conceptual art and post-conceptual art. Discussions of artists such as Pablo Picasso, Maya Lin, Jackson Pollock, Kara Walker, Cindy Sherman, Ai Weiwei and Jeff Koons will be an integral premise for the class. The investigation of creative connections between artists and movements is a recurring topic, as are the art market, galleries and museums. The class will learn about various artmaking processes; for instance, a contemporary artist might use nontraditional tools and materials such as a 3D printer and discarded items found on the street. Class materials exploration and a trip to the Institute of Contemporary Art in Boston will enhance learning and heighten creative understanding of the movements. *Offered: winter term. Note: ART409 does not satisfy the studio arts requirement.*

ART500: PORTFOLIO INTENSIVE

This course provides experienced students a rich opportunity to pursue the successful completion of a professional portfolio of artwork featured in an end-of-term thesis exhibition in the Mayer Art Center, team-curated by the class with a contemporary flavor. The meaningful study of 21st century visual culture is infused in

the course through visiting artists and the investigation of artists relevant to ongoing studio work in all mediums. Students focus on photography, printmaking, painting, drawing, ceramics and 3D design. This multimedia studio course requires strong self-direction, a unique studio investment and creative motivation. Students focus on a particular art medium and create multiple works that explore a concept or idea. Under the guidance of the instructor, students will set qualitative and quantitative goals for the term in their chosen studio concentration. Weekly process critiques are an integral part of the course and support ongoing

artistic growth. In addition, the instructor meets individually with students for more specific feedback and to mentor the process. Useful feedback is given to students from other Art Department faculty who specialize in their chosen studio discipline to help them develop ideas and offer suggestions. Students may also receive guidance in the development of an art portfolio suitable for college admission criteria. *Prerequisite: Any 400level studio course. Offered: fall and spring terms.*
In lieu of textbooks, there is a materials fee of \$180.

Classical Languages

The primary goal of the Department of Classical Languages is to develop in our students the ability to read and appreciate significant works of Greek and Latin literature in the original language. The Greeks and the Romans asked fundamental questions about what it means to be human: What is goodness? What is knowledge? These are not questions that afford easy or definite answers, but people like Plato and Vergil got the ball rolling and their voices still speak to us two thousand years later. To hear these voices is to reflect on how they have been received, resisted, used and misused by many cultures that followed. More importantly, their intrinsic brilliance and originality make them worth studying for their own sake. Translations are but a pale shadow of the real thing, so by learning Greek and Latin, students gain direct access to the thoughts and feelings of the authors themselves. Many of their works are as daring now as they were millennia ago, which may surprise those who equate “classical” with “old-fashioned.” Some will provoke dissent, but rather than place Greco-Roman culture on a pedestal, we want our students to engage critically with it, which in turn encourages them to question systems of value and meaning in their own culture.

To implement this goal, we have written our own introductory Latin textbook titled *Ludus* and our own introductory Greek textbook titled **ΑΓΩΝ**. Both follow the same set of principles:

- We explicitly teach Latin and Greek grammar in a way that is student-centered, and discussion based.
- We treat Latin and Greek not as puzzles to be decoded but as languages used to express meaning.
- We ask students to read connected stories of historical and cultural interest. In addition, we believe that speaking, hearing and writing Latin and Greek will help them become better readers.

An abiding, concomitant goal is to make our students intellectually independent, both of their instructor and of auxiliary materials such as dictionaries. Our ideal is that students will acquire a truly active knowledge of Latin and Greek and so become their own best teachers and critics. Students take an active role in class from the earliest stage, whether explaining work they have displayed on the board or posing questions and suggestions to their peers. Students become able with increasing frequency to take the lead during classes, whether in assessing the accuracy of a translation or in leading the discussion of a passage of Vergil's *Aeneid* or of a Platonic dialogue.

The capstone of our program is the Classical Diploma. To fully appreciate classical literature as a product of two interconnected cultures, students should know both Latin and Greek, and the wearing of laurel wreaths on commencement day symbolizes this achievement. Students may advance even further beyond the requirements of the Classical Diploma, knowing that our department is committed to offering classes in Latin and Greek to match the highest level they are able to attain.

Although our department focuses on the study of classical languages, we also want to expose our students to the other disciplines that inform the field of Classics: namely, history and archaeology. We encourage interested students to enroll in Classical Greece (HIS203) and Roman History for Latin Students (HIS314) and to participate in the many opportunities to experience antiquity firsthand, such as the Spring Study Tour in Rome (offered in even years), the Winter Term in Rome (offered in odd years) and the Summer Archaeology Programs in France, Italy and Greece.

Classical Diploma Latin Concentration

The Classical Diploma with a Latin concentration is awarded to students who successfully complete both a Latin course and a Greek course from the following options:

- Latin 611 or Latin 530
- Greek 431 or Greek 220

The standard expectation is that students take 13 terms of Latin and Greek as counted by Online School courses, but a student who enters the school in grade 10 or later may, if placement precludes reaching Latin 611 or Latin 530, earn a Classical Diploma by successfully completing both a Latin course and a Greek course from the following options:

- Latin 531
- Greek 431 or Greek 220

The last course in the sequence of courses in each language must be taught by an Online School teacher. Seniors who wish to earn the Classical Diploma but also to participate in the Washington Intern Program or another off-campus, spring-term program, may do so by successfully completing Latin 621 and Greek 421; students who wish to participate in off-campus programs in the fall or winter of their senior year should plan to start Greek before their senior year.

Classical Diploma Greek Concentration

The Classical Diploma with a Greek concentration is awarded to students who successfully complete both a Greek course and a Latin course from the following options:

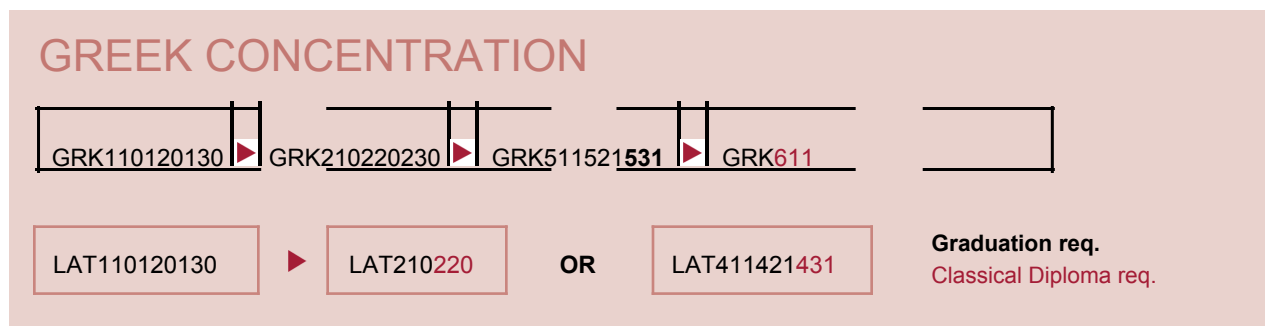
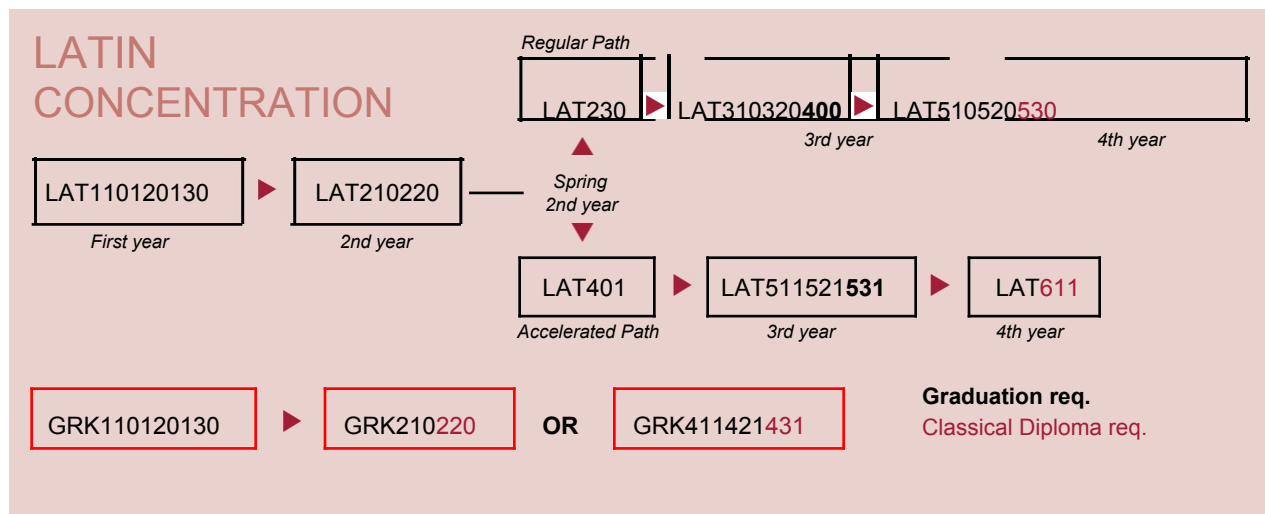
- Greek 611
- Latin 431 or Latin 220

The standard expectation is that students take 13 terms of Greek and Latin as counted by Online School courses, but a student who enters the school in grade 10 or later may, if placement precludes reaching Greek 611, earn a Classical Diploma by successfully completing both a Greek course and a Latin course from the following options:

- Greek 531
- Latin 431 or Latin 220

The last course in the sequence of courses in each language must be taught by an Online School teacher. Seniors who wish to earn the Classical Diploma but also to participate in the Washington Intern Program or another off-campus, spring-term program, may do so by successfully completing Greek 621 and Latin 421; students who wish to participate in off-campus programs in the fall or winter of their senior year should plan to start Latin before their senior year.

Note: Comparable combinations of Latin and Greek courses may, at the discretion of the department, fulfill the requirements.



■ Greek

The following courses are those in the normal sequence that fulfill the language requirement. At times, based on the ability and training of students, the department may advance students to a higher-level course.

Students may gain admission to any course above the GRK110/120/130 sequence by taking qualifying examinations for each respective upper-level course.

GRK110/120/130: ELEMENTARY GREEK

This sequence of courses introduces students to the study of ancient Greek, specifically the Attic dialect. No prior knowledge of Greek, Latin or another inflected language is assumed. The most common forms and syntax are covered within a structured program of exercises and readings. *Meets during the reserve format.*

GRK210/220/230: INTERMEDIATE GREEK

This sequence continues the study of ancient Greek from the first year. By the end of the fall term, students will read adapted selections from Herodotus, who wrote about the Persian Wars with a multicultural sensibility ahead of his time. In the winter term, students will have their first taste of authentic, un-adapted Greek prose by reading Lysias, a professional speechwriter who lived as a metic (resident alien) in fifth-century Athens. His speech *On the Murder of Eratosthenes*, written as a defense for a husband accused of murdering his wife's seducer, provides a vivid glimpse into the life of a middleclass Greek household. In the spring term, students will read other Greek prose authors, such as Lucian and Xenophon. *Prerequisite for GRK210: GRK130. Meets during the reserve format.*

GRK411/421/431: ELEMENTARY GREEK — INTENSIVE

This accelerated introductory sequence is designed for students who wish to complete the Greek requirement for the Classical Diploma (Latin concentration) in just one year. It covers the basic vocabulary, structure, and grammar of Attic Greek in two and a half terms, after which some reading is done from Herodotus, Lysias or Xenophon. No prior knowledge of Greek is assumed, but a strong foundation in Latin or another inflected language is required. *Prerequisite for GRK411: LAT220 or by departmental permission. Meets during the reserve format.*

GRK511: PLATO'S CRITO — INTENSIVE

This course begins with a review of beginning Greek that includes readings in Xenophon's *Memorabilia* and then turns to the study of Plato's *Crito*, a prose dialogue in which Socrates discusses the proper response of a citizen condemned unjustly by the laws of his own democratic state. In addition to the philosophical questions the dialogue raises for such concepts as civil disobedience, it offers students the opportunity to advance their understanding of the Greek language by reading one of the greatest prose stylists of antiquity. *Prerequisite for GRK511: GRK230 or GRK431. Offered: fall term.*

GRK521: PLATO'S APOLOGY — INTENSIVE

Students read Plato's *Apology* in its entirety. While continuing the study of Greek prose grammar and style, this course presents students with the fundamental challenge of Plato's Socrates, a thinker who refused to expound doctrine but demanded that his listeners think for themselves and remain tirelessly dedicated to arriving as close to the truth as possible. Plato masterfully recreates for the reader this challenge to live the examined life, with all its humbling puzzles and acknowledgments of ignorance. *Prerequisite for GRK521: GRK511. Offered: winter term.*

GRK531: HOMER'S ILIAD — INTENSIVE

Homer's *Iliad* is the earliest work of Western literature and perhaps its greatest. In this course, students will read Book 1 in the original Greek, attuning themselves to what Matthew Arnold gave as the dominant characteristics of Homeric style: rapidity, plainness, directness and nobility. After completing Book 1, we will read selections from other books in either Greek or English. *Prerequisite for GRK531: GRK521. Offered: spring term.*

GRK611: GREEK TRAGEDY — INTENSIVE

Students will read a play written by one of the three extant Greek tragedians: Aeschylus, Sophocles and Euripides. Discussion and research may include such topics as comparison of other tragedies, ancient theatre production, the tragic literary tradition and its effect on modern theater, and how ancient Greek political life is reflected in the plays. *Prerequisite for GRK611: GRK531. Offered: fall term.*

GRK621: GREEK OLD COMEDY — INTENSIVE

This course offers a close reading of one or more comedies by the Athenian playwright Aristophanes. Irreverent, incisive and, above all, entertaining, the comedies of Aristophanes laid bare the foibles and failings of Athens' democratic government and helped lay the foundations of modern political satire. Comedies read in recent years include *Lysistrata*, *Clouds* and *Frogs*. *Prerequisite for GRK621: GRK611. Offered: winter term.*

GRK631: GREEK POETRY — INTENSIVE

Depending on the interests of the students and instructor, this course offers readings in either Greek epic or lyric poetry. In the epic sequence, students will read at least two books of Homer's *Odyssey* in their entirety and selections from the full twenty-four. Students may be asked to read the full epic in English to facilitate discussion, while also leaving open the option to explore the ways this story has been interpreted over the centuries in art, literature, theater, and psychology. Lyric poetry, meaning poetry "sung to the lyre" is divided into two types: choral and monody. The former was composed mainly for public ceremonies whereas the latter, focusing on friendship, love, and hate, was probably reserved for private occasions like drinking parties. In the lyric sequence, students will read selections from both types, including works by Alcman, Simonides, Pindar, Alcaeus, Anacreon and Sappho. *Prerequisite for GRK631: GRK621. Offered: spring term.*

ADVANCED SEMINARS IN GREEK — INTENSIVE

The advanced seminars in Greek immerse students in the sustained study of an author, genre, or topic of their choice. Students can select, in consultation with their instructor, either GRK711 or design their own course with the approval of the department (GRK791). *Prerequisite for all: GRK631.*

GRK711: PLATO'S REPUBLIC

A.N. Whitehead once said that all of Western philosophy was but a footnote to Plato. This course provides a close study of the *Republic*, perhaps Plato's most important and influential work. Written as a dialogue between Socrates and others, including the moral relativist Thrasymachus, it focuses on the timeless question: What is justice? Students will read the first book in the original and the entire *Republic* in translation. Special attention will be given to advanced syntax, in particular the use of Greek particles; to Plato's narrative technique; and to the line of philosophical argument developed in the text. Some additional secondary literature on ancient philosophy will be assigned.

GRK791: SPECIAL READINGS

The readings for this course vary from year to year and are dependent upon the interests of the students.

■ Latin

The following courses are those in the normal sequence that fulfill the language requirement. At times, based on the ability and training of students, the department may advance students to a higher-level course.

Students may gain admission to any course above the Latin 110/120/130 sequence by taking qualifying examinations for each respective upper-level course.

LAT110/120/130: ELEMENTARY LATIN

This introduction to the study of Latin is for beginning students and for those who have previously studied some Latin but do not place into Latin 210 or TR1. The most common forms and syntax are covered, except for the subjunctive mood. *Meets during the reserve format.*

LATTR1/TR2: TRANSITION LATIN 1 AND 2

This transition sequence offers students who have studied Latin previously, but who are unable to enter Latin 210, the opportunity to learn more thoroughly the basic Latin forms and syntax, including the subjunctive mood, that are covered in Latin 130 and 210. Current approaches and texts for teaching Latin vary widely, and this course offers students the opportunity to adapt fully to the departmental expectations before entering LAT230 or LAT401. At the end of TR1, students enter either TR2 or LAT120. Placement at each stage is determined by the department. *Meets during the reserve format. Offered: fall and winter terms.*

LAT210/220/230: INTERMEDIATE LATIN

This sequence continues to introduce students to additional forms and syntax, including the subjunctive mood. After completion of this material, students will have their first taste of authentic, unadapted Latin prose. Not just a general, conqueror and dictator, Julius Caesar was also a man of letters and is often heralded as the exemplar of *Latinitas*, or Latin "correctness." Said to have been composed *inter tela volantia* ("amidst a volley of weapons"), Caesar's *De Bello Gallico* presents an exciting and dramatic account of the military campaigns against Gallic tribes that brought all of Gaul under Roman control. *Prerequisite for LAT210: LAT130. Meets during the reserve format.*

HIS314: ROMAN HISTORY FOR LATIN STUDENTS

Similar in scope to HIS204, this course will be taken simultaneously with LAT220 and provides a deeper historical background to the authors that students will read in second-year Latin and beyond, namely Caesar, Cicero and Vergil. Readings for HIS314 will be drawn more heavily from primary sources than readings for HIS204, and students will also be reading Latin versions of sources that are relevant to HIS314 in LAT220. Students must register for both LAT220 and HIS314, which will meet in two separate formats with two different teachers, and students will receive two term credits. Students who have taken HIS204 may not take this course. *Open to lowers and uppers (and juniors with departmental permission). Offered: winter term.*

LAT310: CICERO

Quintilian said, "For posterity, the name of Cicero has come to be regarded as the name of eloquence itself." In this course, students will read Cicero's *First Oration Against Catiline* and discover how the consul Cicero used his rhetorical talents to denounce the disgruntled aristocrat Catiline and thwart his conspiracy to overthrow the state. *Prerequisite for LAT310: LAT230. Offered: fall term.*

LAT320: LATIN PROSE

Students will read selections of Latin prose from Caesar, Cicero, Pliny, Sallust, Seneca, Tacitus and the Acts of the Apostles in the *Vulgate*. What these selections all have in common is that they reveal the attitudes of elite Roman men toward women, slaves and foreigners. By focusing on the lives of nonelite Romans, we hope to circumvent the bias of our sources in order to gain a fuller understanding of Roman society. *Prerequisite for LAT320: LAT310. Offered: winter term.*

LAT400: OVID

This course offers an introduction to poetry and meter through selections from Ovid's *Metamorphoses*, the epic poem that breathes life into our understanding of so many Greco-Roman myths. The flight of Daedalus and Icarus, the love of Pyramus and Thisbe, and the footrace of Atalanta are a sampling of the stories we will translate and discuss in depth. *Prerequisite for LAT400: LAT320. Offered: spring term.*

LAT401: CICERO AND LATIN PROSE — INTENSIVE

Quintilian said, “For posterity, the name of Cicero has come to be regarded as the name of eloquence itself.” In this accelerated course, students will read Cicero’s *First Oration Against Catiline* at a faster pace than in Latin 310 and will discover how the consul Cicero used his rhetorical talents to denounce the disgruntled aristocrat Catiline and thwart his conspiracy to overthrow the state. After finishing the speech, students will then read selections of Latin prose from Pliny, Seneca, and other authors that focus on the lives of women, slaves and foreigners. Students are admitted to this course with permission of the department. *Prerequisite for LAT401: LAT220 or LATR2 with permission of the department. Meets during the reserve format. Offered: spring term.*

LAT411/421/431: ELEMENTARY LATIN — INTENSIVE

This accelerated introductory sequence is designed for students who wish to complete the Latin requirement for the Classical Diploma (Greek concentration) in just one year. It covers the basic vocabulary, structure and grammar of Latin in two and a half terms, after which some reading is done from Caesar’s *De Bello Gallico*. No prior knowledge of Latin is assumed, but a strong foundation in Greek or another inflected language is required. *Prerequisite for LAT411: GRK220 or by departmental permission. Meets during the reserve format.*

LAT510/520/530: VERGIL

This sequence is for those students who have taken the Latin 310/320/400 sequence and who wish to go beyond the language requirement. This sequence fulfills the Latin requirement for the Classical Diploma. The 510/520/530 sequence offers a close reading of selections from Vergil’s epic *Aeneid*, Latin poetry’s defining achievement and an enduring monument of world literature. Books 1, 2, and 4 will be read in the first, second and third terms respectively. *Prerequisite for LAT510: LAT400 or LAT431.*

LAT511/521/531: VERGIL — INTENSIVE

The 511/521/531 sequence offers a close reading of selections from Vergil’s epic *Aeneid*, Latin poetry’s defining achievement and an enduring monument of world literature. This intensive sequence covers more material than the 510/520/530 sequence and features more in-depth analysis of the language of the epic, its literary antecedents, and its cultural and historical context. Students will read Books 1, 2 and 4, as well as selections from later books. *Prerequisite for LAT511: LAT401 or LAT431 with permission of the department.*

LAT611: CATULLUS — INTENSIVE

This course is dedicated to reading selections from the short *carmina* of a revolutionary young lyric poet, Gaius Valerius Catullus. Love, hate, betrayal, loyalty, invective and the art of writing itself are among the array of topics that Catullus explored in a variety of meters. *Prerequisite for LAT611: LAT531, or LAT530 with permission of the department. Offered: fall term.*

LAT621: HORACE — INTENSIVE

In this course, students study many of Horace’s lyric poems (*Odes*) and at least one of his *Satires*. Horace used his verse to discuss topics essential to fundamental human happiness in the face of inevitable changes both personal and political. In addition, his poems, which combine philosophical concepts with highly crafted artistry, develop a unique voice at once congenial, sardonic and elusive. *Prerequisite for LAT621: LAT611. Offered: winter term.*

LAT631: OVID — INTENSIVE

This course explores in depth the wittiest of Roman poets, Publius Ovidius Naso. First, we will read three of his *Amores*, the love poems that made him famous; then, the opening of the *Ars Amatoria*, the seduction manual that got him in trouble with the emperor Augustus; and finally, selections from the *Metamorphoses*, the epic masterpiece that has influenced more artists and writers than perhaps any other work of Western literature. *Prerequisite for LAT631: LAT621. Offered: spring term.*

ADVANCED SEMINARS IN LATIN — INTENSIVE

The advanced seminars in Latin immerse students in the sustained study of an author, genre or topic of their choice. Students can select, in consultation with their instructor, one of the courses listed below or design their own course with the approval of the department (LAT791). *Prerequisite for all: LAT631.*

LAT711: LATIN ELEGY

Quintilian famously said, “In elegy too we challenge the Greeks.” Although indebted to the Greeks, the Roman elegists created a kind of personal love poetry never seen before in literature: a cycle of poems describing a love affair with one woman or one man. We will be reading selected elegies of Propertius, Tibullus, Ovid and Sulpicia (the sole female representative), with an eye toward appreciating their poetic craft and analyzing what the genre meant to them and their audience.

LAT721: LATIN PROSE COMPOSITION

In this course, students complete an intense review of Latin grammar while also reading selections of several Latin authors with an eye toward identifying the stylistic elements that make each author unique. Students then put their Latin knowledge to the ultimate test by creating their own original compositions in the style of different authors; for example, Ciceronian oratory, Sallustian or Tacitean history, biographical works in the style of Suetonius, or letters about natural disasters inspired by Pliny.

LAT731: LUCRETIUS

Vergil said of Lucretius: “Happy is he who could understand the causes of things.” Lucretius was an ardent Epicurean who believed that the world was composed of indivisible particles called atoms and that the soul, also composed of atoms, perished with the body. In this course students will study *De Rerum Natura*, a didactic poem that Lucretius wrote to explain his philosophy and to free his readers from their fear of death.

LAT741: PLAUTUS

The comedies of Plautus are the earliest complete works of Latin literature we have. Adapting the plots of earlier Greek plays, Plautus made them his own by adding such distinctively Roman elements as the role of the clever slave, coarse Latin humor, and lots of puns and other wordplay. In this course students will read Plautus’s *Menaechmi*, the model for Shakespeare’s *The Comedy of Errors*.

LAT751: ROMAN SATIRE

This course explores the meaning of the Roman interpretation of satire (*satira*, meaning “medley”) and how the literary form developed from an improvisational, personal story set to meter to a lighthearted yet dagger-sharp form of social criticism. Reading selections from Lucilius, Horace, and Juvenal, students will have an opportunity to consider how the self is perceived in and by society.

LAT761: TACITUS

Agrippina, the sister of Caligula, wife of Claudius, mother of Nero, was at the heart of the power and intrigues of the Julio-Claudian emperors for several decades. She is one of the most colorful characters in Tacitus’ history of that period with allegations of promiscuity, incest, murder and treason. Students will read extracts from Tacitus’ *Annals*, Books 12-14, taking in her marriage to Claudius, the accession of her son Nero, and her downfall. Students will become familiar with Silver Latin, and appreciate the “*brevitas, varietas, et poeticus color*” for which Tacitus is acclaimed.

LAT771: MARTIAL AND PETRONIUS

Although they wrote in different genres — Martial was a master of the epigram, while Petronius wrote something resembling a modern novel — the works of these first century CE authors are both written in language that is closer to the street than to the elevated diction of Cicero or Vergil. They are also full of amusing and incisive observations on the daily lives of ordinary, nonelite Romans — their jealousies and desires, their occupations and preoccupations, their dining tastes and favorite entertainments, their philosophies of life and views on death.

LAT791: SPECIAL READINGS

The readings for this course vary from year to year and are dependent upon the interests of the students.

■ Classics

Note: The following course does not give credit toward the language requirement, nor the classical diploma requirement.

ENG590: REIMAGINING THE CLASSICS: HOMER’S ODYSSEY

See English Department offerings for complete description. *No previous knowledge of Latin or Greek is required or is expected. Open to seniors. Offered: spring term.*

Computer Science

The core of Computer Science at American Education Online focuses on three components: algorithms and the style of thinking needed to properly formulate them; the impact of algorithmic use on societal norms and public policy; and software development and creation. As students advance through the curriculum, the Computer Science Division invites them to reexamine their views on technology's place in the modern world, reevaluate the limitations of computers, and reorganize their own thinking to best combine the creativity of humans with the efficiency and precision of computers.

Students interested in computer science may start in one of three locations:

CSC205: Algorithms and Public Policy focuses on the interaction between algorithms, social policy and those who create that policy.

CSC208: Algorithms and the Dynamic Web focuses on using algorithms to design and create interactive websites for the modern world.

CSC405: Algorithms and Software Creation focuses on the combination of human creativity and computer precision to create software applications that can enhance the lives of people through entertainment, productivity and/or utility.

Students who wish to take the Computer Science AP exam are encouraged to start with CSC405 and continue through CSC505 to CSC590.

CSC205: ALGORITHMS AND PUBLIC POLICY

This course introduces students to algorithms and algorithmic thinking through the lens of social and public policy. Students explore the impact of algorithms and software on privacy, censorship and other sometimes contentious matters in the modern world. Students will learn programming as a tool for exploring these concepts. *Not open to students who have taken CSC208 (exceptions may be made with departmental permission). Meets during the reserve format. Corequisite of MAT12T or higher.*

CSC208: ALGORITHMS AND THE DYNAMIC WEB

This course introduces students to algorithms and algorithmic thinking through the lens of dynamic website design and creation. This course will teach skills for static and dynamic content creation as well as the algorithmic thinking required to facilitate that creation. Students explore the impact of algorithms and software on privacy, censorship and other sometimes contentious matters in the modern world. Tools used to create dynamic websites may

include, but are not limited to, HTML, CSS, JavaScript and PHP. *Not open to students who have taken CSC205 or the previously named CSC305 (exceptions may be made with departmental permission). Meets during the reserve format. Corequisite of MAT12T or higher.*

CSC308: INTERACTIVE, DATA-DRIVEN COMPUTING

Building on coding concepts introduced in the 200-level courses, this course will focus on more advanced topics in creating interactive software applications. This course will explore the data structures necessary to build cohesive programs that respond to human interaction in real time. This is a project-based course where students will learn by writing software and building creative applications. *Prerequisite: CSC205 or CSC208 or permission of the department. Offered: spring term.*

CSC405: ALGORITHMS AND SOFTWARE CREATION

This course introduces students to algorithms and algorithmic thinking through the lens of the creation of games and other software. This course devotes time to acquiring software development skills and focuses on the object-oriented programming paradigm. Students with prior programming experience may prefer this course to CSC205 or CSC208, though no such experience is required for this course. Important concepts covered in this course include: classes, objects, messages, attributes, methods, inheritance and polymorphism. It is recommended that students planning to take the AP Computer Science exam enter the sequence with CSC405. *Meets during the reserve format. Corequisite of MAT12T or higher.*

CSC505: DATA STRUCTURES AND ALGORITHMS

This course examines classic data structures: lists, queues, stacks, binary trees and graphs, and hash tables. Standard algorithms for sorting and searching will be studied, and complexity analysis performed using big-O notation. Students also develop a deeper understanding of software engineering principles as the course emphasizes reuse and generic programming. *Prerequisite: CSC405 or with permission of the department. Offered: winter and spring terms.*

CSC506: NETWORK AND MOBILE ARCHITECTURE

Within this course, we will explore the networked and/or mobile spaces by developing applications for one or more of the presently available platforms (Android, IOS and BlackBerry). Students will examine how networks operate on a fundamental level and how to use those networks to communicate between machines. Throughout the term, sound software design and engineering practices in encapsulation and modularization will be emphasized. *Prerequisite: CSC405 or with permission of the department. Offered: winter term.*

CSC590: SELECTED TOPICS IN COMPUTER SCIENCE

This course will address a variety of theoretical and/or technological issues related to computer science and provides an opportunity for students to undertake a term-long software development or research project. Topics to be covered each term are decided by the instructor

in consultation with students. Students will work individually or in small groups on projects related to these topics. During the spring term, students who wish to take the AP Computer Science exam will devote part of this course to guided preparation for the exam. This course may be repeated. *Prerequisite: CSC308 or CSC505 or CSC506 or with permission of the department.*

CSC590: SOCIAL INNOVATION THROUGH SOFTWARE ENGINEERING

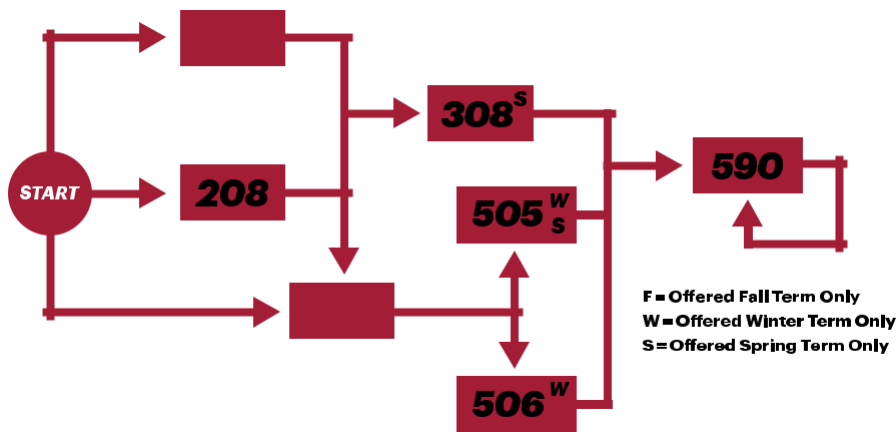
Offered: fall term.

CSC590: COMPUTER GRAPHICS

Offered: winter term.

CSC590: ARTIFICIAL INTELLIGENCE

Offered: spring term.



Economics

Economics helps students understand how consumers and businesses make decisions and how the interplay of market forces and government interventions in the economy affects people's wellbeing. Students also gain insight into the causes of long-run changes in standards of living and of short-run fluctuations in economic performance. The discipline emphasizes an understanding of the role of incentives and of the tradeoffs we face when trying to use scarce resources efficiently while preserving long-run sustainability of production and achieving an equitable distribution of the economy's output.

Seniors who are interested in the study of economics at American Education Online may choose from five offerings. With the exception of ECO520: Microeconomic Theory and Policy, these courses have no prerequisites.

Students interested in the history of economic development in the Western world and in the philosophies of the great political economists such as Adam Smith and Karl Marx should enroll in HIS506: Capitalism and Its Critics, offered in the fall term.

Students who wish to understand why standards of living remain so low in dozens of countries across the world and how government policies can help reduce poverty should take HIS556: Why Are Poor Nations Poor?, which is offered in the winter term.

Students who desire a one-term introduction to both microeconomic and macroeconomic issues should take ECO502: Principles of Economics and Business, offered in the spring. This course is not open to students who take ECO510 or ECO520. It emphasizes an understanding of contemporary economic and business topics, especially issues of political controversy.

Finally, students who prefer an in-depth exploration of economic theory and models and of their applications to contemporary problems should enroll in one or both of the following courses: ECO510: Macroeconomic Issues in the United States, which focuses on the behavior of the national economy (offered in the winter term), and ECO520: Microeconomic Theory and Policy, which covers the behavior of individual consumers, businesses and markets (offered in the spring term). These two courses work well as a sequence, and ECO510 is a prerequisite for ECO520. However, students may choose

to take ECO510 without taking ECO520; with permission of the instructor, they may be allowed to take ECO520 without having taken ECO510. In most cases, however, students who don't take ECO510 in the winter and wish to take an economics class in the spring should take ECO502 instead of ECO520.

Note: Economics courses do not give credit toward the History Department requirement. Economics 502 and 520 may NOT be taken in the same term. These courses may meet three class periods per week to allow emphasis on independent work.

ECO502: PRINCIPLES OF ECONOMICS AND BUSINESS

This course provides an introduction to the economic way of thinking and covers the fundamentals of both microeconomics and macroeconomics. We begin by examining supply and demand and the role of incentives and then discuss market failures, business behavior, financial markets and the role of government intervention in the economy. We also explore the causes of recessions and booms, the role of fiscal and monetary policies, and the economics of international trade and globalization. Open to seniors. Not open to students who have taken or are taking Economics 510 or 520. *Offered: spring term.*

ECO510: MACROECONOMIC ISSUES IN THE UNITED STATES

This course examines in depth the behavior of macroeconomic aggregates such as GDP and its components, inflation, unemployment, and interest rates. We study the determinants of long-run economic growth as well as the causes of the business cycle (recessions and booms). We discuss the pros and cons of fiscal and monetary policies and also address government budget deficits, the role of the banking system, trade and capital flows across countries, and exchange rate determination. *Open to seniors. Offered: winter term.*

ECO520: MICROECONOMIC THEORY AND POLICY

This course examines in depth how markets work (or fail to work), how people and businesses make economic decisions, and how government intervention in various markets affects economic outcomes. We study supply and demand and the allocation of resources, price controls (including the minimum wage), taxation and its effects on consumers and producers, income distribution, and environmental regulation. We also discuss market structures (competition, monopoly, oligopoly) and their implications for business behavior, financial markets, and international trade and protectionism. *Open to seniors. Prerequisite: ECO510 or permission of the instructor. Offered: spring term.*

English

The teaching of English at American Education Online is shaped by the conviction that language is the essential means of gaining self-knowledge and of participating in community. The emphasis may vary from course to course, but the goals of instruction are constant: the development of skills of expression and of listening and understanding. The courses in our required sequence (English 100 through English 500) are differentiated primarily by the increasing complexity and sophistication in the writing we expect and in the works we read. In their senior winter and spring, students choose from a range of electives focusing on particular writers, topics or genres. At every level, students are likely to write in various forms and to read works representing diverse voices and experiences.

Each year, the Online School sponsors a writer-in-residence, the George Bennett Fellow. In addition, poets and prose writers regularly visit campus to read from their own work and to meet with groups of students. Two student publications, *Pendulum* and *Peal*, feature student prose and poetry.

■ Junior Year

ENG100/210/220: 9TH GRADE ENGLISH

In this sequence of courses, the English Department introduces ninth graders to the reading practices, discussion principles and writing strategies they will use and on which they will build throughout their four years of English study at American Education Online. Ninth graders read, discuss and write about poems, short stories, novels and plays designed to introduce them to the art of writing about their own lives. Students write personal narratives throughout their four years at American Education Online but focus heavily on this genre during their first two years. Assignments, feedback and frequent writing workshops help students create convincing characters and a sense of place in their narratives and hone their skills as readers and editors of one another's work. Special emphasis is also placed on participation in class discussions; students take time to reflect on and refine their individual discussion skills and identify ways in which they and their peers might work together more productively. Initially, students write short descriptive and narrative pieces before beginning to produce longer, more sustained personal narratives as the year progresses. They also explore their readings through analytical writing, whether in journals, short in-class

writing assignments or online discussion boards. In all these ways, the English 100/210/220 sequence prepares ninth graders for the increasingly demanding work they will do — as readers, as discussion partners, as writers — in future English courses. All ninth graders read a play by Shakespeare in the spring term.

■ Lower Year

ENG310/320/330: 10THGRADE ENGLISH

In this sequence of courses, readings introduce broader, more complex personal and social topics. The writing program emphasizes personal narratives but may include editorials, poetry projects, dramatic writing and responses to the readings. Assignments foster awareness of audience and exploration of perspective. During the winter term, writing assignments encourage exploration of racial identity, and readings and discussions help students develop a critical understanding of race in literature in order to prepare them for further discussions of identities as they move through the curriculum. In the spring term, students write a sustained narrative piece, often based on research into their family history. All Lovers read a play by Shakespeare in the winter or spring term.

■ Upper Year

ENG410/420/430: 11THGRADE ENGLISH

In this sequence of courses, writing assignments shift from personal narratives to personal and analytical essays in which the exploration and articulation of ideas increasingly influence content and structure. Readings continue to grow in complexity of subject matter and style. In the spring term, students read a play by Shakespeare and complete a longer, more ambitious essay.

■ Senior Year

■ Senior English Fall Term

ENG500

In the final sequential course in the English curriculum, writing assignments continue to focus on various forms of essay writing, culminating in a sustained exploration of a topic or theme — the Senior Meditation or an equivalent capstone assignment. Readings continue to grow in complexity of subject matter and style.

■ Senior English Winter and Spring Terms

The English Department offers a variety of elective courses to seniors during the winter and spring terms. Course offerings focus on creative writing, individual authors or literary topics. Seniors choose English courses during the registration period in the spring prior to their senior year, at which time they may enroll in one elective in each term. Seniors may enroll in additional elective courses upon the announcement at the end of the registration period.

SENIOR SEMINARS IN WRITING

The senior writing seminars immerse students in the study of a genre of their choice. Writing and workshop-intensive, these Harkness seminars combine rigorous literary analysis and regular creative practice and revision. Students read diverse texts as models for their own writing, analyzing elements of form, voice and technique. As they deepen their understanding of how texts in the genre are crafted, they gather useful tools and terminology to create their own works. Students will leave the course with a collection of original work in and craft-oriented analyses of the genre.

Winter Term

ENG505: Creative Nonfiction

ENG506: Multi-genre *

Spring Term

ENG502: Short Fiction

ENG503: Poetry

ENG504: Drama

*“Multi-genre” writing allows students to employ multiple (even conflicting) perspectives, voices and approaches as they explore the interaction between and among genres. In this course, students will explore multi-genre writing by reading multi-genre texts, such as Michael Ondaatje’s *The Collected Works of Billy the Kid*, and by completing their own multi-genre project.

SENIOR SEMINARS IN READING: AUTHOR IMMERSION

The senior reading seminars immerse students in the sustained study of an author, which students will choose from a list representing a range of diverse voices, periods and genres. Some seminars will focus on a single major work; some will focus on multiple works; some will include ancillary works.

Winter Term

ENG542: Jane Austen

ENG544: Samuel Beckett

ENG545: Junot Díaz

ENG552: Kazuo Ishiguro

ENG555: Cormac McCarthy

ENG558: Toni Morrison

ENG564: Virginia Woolf

Spring Term

ENG543: James Baldwin

ENG548: Zora Neale Hurston

ENG549: William Faulkner

ENG554: Tyehimba Jess

ENG556: Herman Melville

ENG559: Viet Thanh Nguyen

ENG560: Salman Rushdie

ENG562: Zadie Smith

TOPICS IN LITERATURE

Topics in Literature courses invite students to broaden their literary study, choosing from a wide variety of courses that take thematic, topical, regional and interdisciplinary approaches to literature.

Winter Term

ENG567: Fictions of Finance

ENG568: The Harlem Renaissance

ENG570: Page to Screen: Film Adaptations

ENG576: Art of Protest

ENG577: Queer Literature

ENG581: Poetry and Songwriting

ENG583: Stranger in a Strange Land

ENG586: Writing the Body

ENG587: Beyond Korean Cool

ENG588: Crime Fiction

Spring Term

ENG569: Feminism and Literature

ENG572: Literature and the Land

ENG573: Beats, Rhymes & Narrative

ENG574: Literature of California

ENG578: Children's Literature

ENG579: Spring in Love

ENG582: Science Fiction and Fantasy

ENG584: Baseball:

The American Narrative

ENG585: Visions of Paradise: Utopias and Dystopias in Literature

ENG590: Reimagining the Classics: Homer's *Odyssey*

ENG567: FICTIONS OF FINANCE

What do we value? The pursuit of profit, surges in wealth, the suspect principles of the financier and the exploitation of labor have intrigued authors since the 19th century. How do language, narrative style, structure and literary production transform with shifts in the marketplace? What happens to the fictions we create when the production of wealth moves further and further from the production of things and closer to an invisible economy? Through a careful investigation of literature, film and illustration, we will discuss how art imagines, captures, reproduces, and redefines social and economic relations. In return, we will supplement the literary works with historical documents or articles that will shed light on the economic climate at the time of publication. We might consider how the imagined space of the novel presents the mystery of the financial market, which seems hidden and shrouded in a haze. We might also ponder how authors imagine worlds where money has no practical use, and nothing has any purchasing power. Authors might include Edith Wharton, F. Scott Fitzgerald, W. E.

B. Du Bois, Henry James, Joseph O'Neill, Zia Haider Rahman, Zadie Smith, Marilyn Robinson, Viet Thanh Nguyen and Peter Mountford. Over the course of the term, students will write short analytical pieces and complete a creative independent project of their own design.

ENG568: THE HARLEM RENAISSANCE

In the 1920s in Harlem, New York, there gathered a constellation of African American writers, artists, actors, singers and thinkers who changed American and world culture forever. Between World War I and the Great Depression, Harlem was suddenly in vogue and the center of a prolific cross pollinating of African American art and literature. Referred to now as the Harlem Renaissance, this movement stands as one of the landmarks of American literary, artistic and intellectual history. It marked the emergence of a distinctive current of modern black literature, involving a remarkable clustering of black artists who sought to give expression to the African American experience in all its ambiguous and complex range. The course will serve as an introduction to this period of pitched creativity by black writers, focusing on works such as Claude McKay's *Home to Harlem*, Jean Toomer's *Cane*, Nella Larsen's *Passing* and Zora Neale Hurston's *Their Eyes Were Watching God*, as well as the work of James Weldon Johnson, Countee Cullen, Langston Hughes and other writers of the era. It will also take a look at African American achievements in music and the visual arts during that period and examine the influence of the Harlem Renaissance, not only on the evolution of African American literature but upon American, Afro-Caribbean, and world art and literature as a whole.

ENG569: FEMINISM AND LITERATURE

What is feminism and how is it expressed in literary texts? What does it mean to read literature through the lens of feminism? This course will allow students to explore these and other questions central to feminist literary studies. Readings will include a range of literature by women as well as selected works of critical theory. Texts may include works by Virginia Woolf, Roxane Gay, Kate Chopin, Adrienne Rich, Charlotte Perkins Gilman, Alice Walker, Hanan al-Shaykh, Nawal El Saadawi, Audre Lorde, Jean Rhys, Mary Wollstonecraft, Toril Moi, Judith Butler, Maxine Hong Kingston, bell hooks and Elaine Showalter, among others.

ENG570: PAGE TO SCREEN: FILM ADAPTATIONS

Students read novels, short stories, essays and plays and study their transformation into films. Through these comparisons and a short study of key film techniques and perspectives such as auteur theory, students learn how to "read" a film. The class chooses works such as *A Clockwork Orange*, *Apocalypse Now*, *Atonement* and Alice Munro's *Runaway*, among hundreds of possibilities. Paper topics emerge from the material read and viewed.

ENG572: LITERATURE AND THE LAND

In this course, students will read texts, write papers and participate in outdoor excursions that prompt them to contemplate their relationship to the natural world. Drawing on an array of classical and contemporary environmental writers, including Edward Abbey, Gretchen Legler, Henry David

Thoreau, Rebecca Solnit, Annie Dillard and Aldo Leopold, we will examine models of terrain becoming text. Our discussions will be far-reaching, and students will emerge with a clearer sense of environmental literature's aesthetic and ideological contours. Written work will afford students the chance to practice the close observation and precise attention to detail required in writing effectively about the natural world. In order to foster a deeper connection to local landscape and to better understand human interaction with it, a portion of our field time may be dedicated to a local environmental service project chosen by the class. *This course meets during a reserve format in order to create a double-format meeting time for field work.*

ENG573: BEATS, RHYMES & NARRATIVE

The influence of hip-hop on popular culture, literary arts, entertainment and politics is undeniable. *Hamilton* has revolutionized the Broadway musical. Kendrick Lamar's *To Pimp A Butterfly* has been used in the same course with Toni Morrison's *The Bluest Eye*. Universities have developed research institutes, archives and pedagogical centers for the study of hip-hop. In this course, we will examine the relationship between hip-hop and narratology. We will listen to several songs weekly, compare them to short stories and poems, and analyze their use of narrative devices. Discussions will examine hip-hop as a modern-day blues and a form of social justice, exploring issues of gender, race, class and resistance. Texts will include poetry by Patrick Rosal and Patricia Smith, fiction by Junot Díaz and Victor LaValle, cultural commentary by Jeff Chang, lyrics by artists like Lupe Fiasco and Beyoncé, "classic" hip-hop and other relevant sources (e.g., film, biographies and articles). Assignments will include a creative literary analysis of several songs and a major assignment at the end of the course.

ENG574: LITERATURE OF CALIFORNIA

California is famous for its literal, meteorological fog, but no other state is as shrouded in the fog of myth, dream and reinvention when it comes to identity, culture or landscape. This course will focus on California's rich literary heritage and its development throughout the state's complicated history, mostly from the late 19th century to the present. We'll read across genres to explore topics that span the rise of the military-industrial complex to the natural beauty of Big Sur, from Hollywood and "noir" to Japanese American internment camps, "water wars" to surfing, and Disneyland to migrant labor. Texts might include work by Raymond Chandler, Joan Didion, Thomas Pynchon, Amy Tan, Chester Himes, Christopher Isherwood, Robinson Jeffers, M.F.K. Fisher, Marisa Silver, Toshio Mori, Robert Hass, Gary Soto and others, with supplementary socio-historical context works by Mike Davis and Kevin Starr, and viewing of films (*Chinatown*, *Zabriskie Point*, *One California Day*) and photography (Edward Weston). Written assignments will include weekly short critical analyses, with the occasional foray into creative genres and parody.

ENG576: ART OF PROTEST

From the grittiness of rap to the density of civil disobedience, this course examines a variety of literary-artistic protest. The approach is multicultural and interdisciplinary. Possibilities include poets of color, gay playwrights, feminist novelists and foreign films. Students write extensively in journals and present a collaborative project. This class may include a service-learning component or project.

ENG577: QUEER LITERATURE

This course explores the experience and self-definition of several major queer writers — in fiction, poetry and memoir. The course is intended for any students who want to deepen their understanding of queer identity as expressed in literature and film. Texts include poems by Sappho, Walt Whitman, Adrienne Rich, Amy Lowell, Allen Ginsberg, Mark Doty; stories by Katherine Mansfield and others; and Paul Monette's memoir *Becoming a Man*. Films may include *The Wedding Banquet*, *The Incredibly True Adventure of Two Girls in Love*, *Longtime Companion*, *Antonia's Line* and *Strawberry and Chocolate*.

ENG578: CHILDREN'S LITERATURE

How did you come to be the reader you are? What ideas about the world and its characters did you gain from the stories you read as a child? Why did you read and reread some books? How did illustrations work with words to create the stories you saw and read? What larger issues of psychological development and culture can be understood in the stories adults create for children? Students will explore these and other questions by reading and discussing various genres and levels of children's literature, including fairy tales, picture books, poetry and novels. Written assignments will include a reader's journal, a short research paper, a children's story and a final project.

ENG579: SPRING IN LOVE

Literary lovers, it seems, break the rules, explore the boundaries set by family or society or religion or law. What can we learn from their defiance? Why does such love so often end in disaster? Is love socially constructed or universal? We will explore these and other questions through a variety of genres. Possibilities include cross-cultural myths and legends, something Shakespearean, Nabokov's *Lolita*, Hwang's *M. Butterfly*, Austen's *Pride and Prejudice*, Woolf's letters, and the films *My Brilliant Career*, *Cyrano de Bergerac* and *Tess of the d'Urbervilles*. Students will keep a journal of reader responses and design a final project.

ENG581: POETRY AND SONGWRITING

The marriage of poetry and song is one dating back to ancient times. From the Greek lyric poets to the poets of the English Renaissance, into our own era with the 1960s folk revival, blues, jazz, performance poetry, rap and hip-hop, music has partnered with poetry to create singular, memorable effects. This course will explore how the presence of music alters and enhances what's being said at

the lyric level (and vice versa). What happens to a poem when it's set to music? In composing, what comes first (if either), the lyrics or the tune? And what are the features that make song lyrics "poetic"? We'll explore these and other questions as we read (and listen to) a wide variety of poets and songwriters, ultimately trying our own hands at composing pieces that marry poetry and song. At term's end, students will gather their analytical and creative compositions into a final portfolio and may present a concert to the Online School community. *The ability to play a musical instrument or read music is not required for this course.*

ENG582: SCIENCE FICTION AND FANTASY

Whether it is Tolkien's *Lord of the Rings* or H. G. Wells' *The War of the Worlds*, science fiction and fantasy can not only delight our imagination but also help us understand our real, present world more thoroughly. Students in this course will study a wide array of science fiction and fantasy. They'll look at how fantasy provides commentary on race, gender and class through works such as Octavia Butler's *Fledgling* or Ursula K. Le Guin's *The Left Hand of Darkness*, and consider science fiction's power to comment on technological and social quandaries, such as Frank Herbert's prescient consideration of global warming in *Dune* or Philip K. Dick's exploration of artificial intelligence and identity in *Do Androids Dream of Electric Sheep?* The course will examine some of the early efforts in the field, from writers such as Robert Heinlein and Isaac Asimov, as well as those on the cutting edge of fantasy and science fiction today, like China Miéville and Neal Stephenson. Students will write critical reflections, examining the intersection of these imagined worlds with real life as well as trying to craft some fantasy or science fiction of their own.

ENG583: STRANGER IN A STRANGE LAND

"When you return from travel, no one, except for your dog, should recognize you." —Bob Shacochis

Drawing from a range of essays and literature about travel, this course seeks to equip students with the tools to process and reflect upon their own personal journeys, abroad and otherwise. Through a range of assignments, we will examine closely what it means to embark upon a journey: Why do we travel? What is the difference between a traveler and a tourist? How do we shape, and how are we shaped by, a new environment? And how far does one have to go, exactly, to undergo that everelusive transformation? This class will provide students opportunities not only to write and reflect upon their own travels through journalbased narratives, reflective essays, analytical papers and creative presentations, but also to tackle the deeper questions of what it means to be a global citizen, and how we learn to become at home in the world (or not). No passport required! Texts could vary from anthropological accounts to travel essays to novels and short stories from a range of voices, including *Invisible Cities* (Italo Calvino), *Geographies* (Elizabeth Bishop), *A Passage to India* (E.M. Forster), *On the Road* (Jack Kerouac), *A Field Guide to Getting Lost* (Rebecca Solnit), *Pilgrim at Tinker Creek* (Annie Dillard), excerpts from Mark Twain, Marco Polo,

Jamaica Kincaid and Pico Iyer, *Motorcycle Diaries* (Che Guevara), *The Art of Travel* (Alain de Botton), *Midnight's Children* (Salman Rushdie) and *Cloud Atlas* (David Mitchell).

ENG584: BASEBALL: THE AMERICAN NARRATIVE

A. Bartlett Giamatti, former president of Yale and commissioner of Major League Baseball, believed that this game is "the plot of the story of our national life." In this course we will look at how baseball reflects, embodies and illuminates modern American history, culture, politics and myth. We will also look at the game itself as a narrative — one that unfolds and reveals and surprises; one that demands close reading to understand its nuances, symbols and structure. And we will look at how various artists have used baseball as a central metaphor in their fiction, nonfiction, poetry and film. Texts will be chosen from the works of Dubus, Malamud, Updike, Kinsella, Hall, Giamatti, KearnsGoodwin, Moore and Exley. Possible films: Ken Burns' *Baseball* series, *Eight Men Out*, *Field of Dreams*, *Bull Durham*. Students will write a number of short papers and complete a final project.

ENG585: VISIONS OF PARADISE? UTOPIAS AND DYSTOPIAS IN LITERATURE

Fantastic societies have held a fascination for writers from Thomas More to the present day. Utopia, meaning "no place," is the term for an idealized society whose inhabitants willingly embrace its difference from our own world. Dystopic visions are the disturbing flipside of this coin. Both genres inevitably cause readers to draw parallels between their own experiences and those of the protagonists. Scientific and technological advances are often at the root of the utopic/dystopic discourse, and one of the main functions of this course is to explore the presentation of technology as narrative. The course seeks to examine some of these alternate worlds to explore the way writers of fiction and filmmakers have presented the impact of projected changes and developments on the fabric of society. We will build our visionary galaxy from the following: Thomas More, Aldous Huxley, George Orwell, Margaret Atwood, Cormac McCarthy, Alfonso Cuarón, and other contemporary writers and filmmakers.

ENG586: WRITING THE BODY

"I've only ever wanted to write about what it feels like to be alive, and it turns out being alive is always about being in a body. We're never *not* in bodies: that's just our fate and our assignment." (Leslie Jamison, "Why Writing About Bodies Is Vital.") What are the stories we tell ourselves about our bodies? In this course, we'll study how representations of the body in art, diary, poetry, nonfiction and more inform our thoughts about the body and whether or not we are who we are despite our bodies or because of our bodies. How does our understanding of the body change when the body is an object, a subject, invisible or hypervisible? Course texts may include works by Eliot, Woolf, Frankl, Grealy, Carver, Larkin, Atwood, Baldwin, Purpura, Rankine, Washuta, Patchett, Jamison and Winterson. Students may also be asked to curate select classes by choosing poems, essays or excerpts from texts already on our read

ing list to discuss through the lens of the body. Writing assignments will range from the descriptive (the body in form) to the contemplative (the body in culture).

ENG587: BEYOND KOREAN COOL

Hallyu, the Korean cultural wave, has swept the Republic of Korea onto the world stage as an exporter of dramas, boy bands, girl bands and film. After the Korean War, Korea was among the world's poorest nations. In 1960 the country's GDP per capita was lower than those of Cote d'Ivoire and Honduras, and only 13 percent of farming households had access to electricity. Today South Korea is considered the most wired country on Earth and the plastic surgery capital of the world. How does contemporary South Korean literature explore rapid change and urbanization in the Land of Morning Calm? What is the price of rising at breakneck speed? If writers are holding up a mirror to this nation in flux, what are they demanding that we see? In the late '90s, with the goal of improving its image and garnering influence, the Korean government made a strategic decision to subsidize the Kpop industry. Now that the nation has the attention of the globe, exports are beginning to include more than passing fads and cuttingedge cell phones. In May 2016 Han Kang's *The Vegetarian* won the Man Booker International Prize for fiction, and in 2011 Kyungsook Shin's *Please Look After Mom* appeared on the bestseller list in the United States. In 2013 the Literature Translation Institute of Korea in collaboration with Dalkey Archive Press published a collection of 25 Korean novels and short story collections. The course will draw upon these works, the Class of 1945 Library's collection of Korean literature in translation, and several bilingual editions of contemporary short stories. These newly available literary texts and Euny Han's *The Birth of Korean Cool: How One Nation Is Conquering the World Through Pop Culture* will allow us to look beyond Korean pop culture to examine the concept of *han* and what has been sacrificed in the pursuit of economic growth. Students will write short analytical pieces and will complete an independent project of their own design.

ENG588: CRIME FICTION

This course introduces students to early works in the development of the "detective story" (Edgar Allan Poe, Agatha Christie, Sir Arthur Conan Doyle) and the ways in which those early works help establish the foundations for a variety of "crime fictions" that have steadily grown in popularity throughout the 20th and 21st centuries. Students will learn to appreciate authors working in different times, places and settings and to explore the criminal mind and those tasked with solving criminal cases and fighting criminal activity (whether amateur detective, private eye or police officer). Along the way, students will try their hand at writing their own pieces of crime fiction and produce short analytical pieces examining the books and films they encounter.

ENG590: SELECTED TOPICS IN ENGLISH

This course is offered at student or departmental initiative and may change from year to year. In 2020 the following course will be offered in spring term:

ENG590: REIMAGINING THE CLASSICS: HOMER'S ODYSSEY

The literature of ancient Greece and Rome has been received, resisted, used and misused by many cultures that followed. Homer, who died more than 2,000 years ago, has had a rich afterlife, becoming the model for Vergil and then influencing Dante Alighieri, John Milton, Derek Walcott and Margaret Atwood. Homer's ghost still speaks to us today, and we speak back to it. This dialogue with the past says as much about Homer as it does about our own values and preoccupations.

In this interdisciplinary class, taught jointly by a member of the Classical Languages Department and a member of the English Department, we will select a single work of ancient Greek or Roman literature, read it in translation and then trace its afterlife from antiquity to the present day.

This year's case study is Homer's *Odyssey*, which, along with the *Iliad*, is the oldest work of Western literature. Its hero Odysseus is a "complicated man," as Emily Wilson renders the opening line of the epic — a husband who cheats on his wife, a leader who leaves his men behind, a father who barely knows his own son, a character whose story is ripe for reexamination with a fresh and critical eye. So we will start by reading Emily Wilson's acclaimed new translation of the *Odyssey* and then jump to modern retellings that may include such genres as poetry (*Ulysses* by Alfred Lord Tennyson), fiction (*Home* by Toni Morrison and excerpts from *Ulysses* by James Joyce), drama (*The Odyssey: A Stage Version* by Derek Walcott), fantasy (*The Penelopiad* by Margaret Atwood), short fiction (*The Lost Books of the Odyssey* by Zachary Mason), young adult fiction (*Circe* by Madeline Miller) and cinema (*O Brother, Where Art Thou*, directed by Joel and Ethan Coen). The course will culminate in a final creative project that will allow students to speak back to Homer in their own voices. *No previous knowledge of Latin or Greek is required or is expected. Open to seniors.*

Health and Human Development

The Health and Human Development Department's mission is to prepare and empower our students to value and engage in healthy lifestyles by honoring diversity, fostering leadership, and encouraging students to reach their highest potential as productive, responsible citizens at the Online School and beyond. Our courses merge traditional health education pedagogy with the field of positive education, challenging students to stretch their understanding of health issues personally, locally and globally in trusting and respectful environments. While we believe it is important that students have accurate, up-to-date information about health topics, we do not believe that knowledge alone is sufficient for them to make healthful, responsible decisions for themselves and their communities. In order to facilitate positive healthy choices today and in the future, the curriculum is designed to be developmentally appropriate for each year a student attends PEA and will provide opportunities for students to examine their values and attitudes, as well as develop critical thinking, decision making, resiliency, self-advocacy and interpersonal skills.

HHD110/120: TEEN HEALTH MATTERS FOR JUNIORS/PREPS

In these age-appropriate courses, required of all juniors (preps), students will discuss health issues such as sleep, time management, living and learning in a diverse community, mindfulness, positive psychology and stress management, media literacy, and social practices in a digital landscape. All topics will be addressed in the context of adjusting to a campus community, accessing resources and understanding school rules. We aim to enable students to build self-efficacy and prepare for challenging health and lifestyle choices through the development of effective communication and decision-making skills. The pass/no pass grading system encourages student participation, honesty and sharing in a supportive and more relaxed environment. *Required of all juniors/preps. Two single class periods per week in the fall term and two single class periods in the winter or spring, which may include reserve periods.*

HHD210: TEEN HEALTH MATTERS FOR LOWERS

In this age-appropriate course, required of all new lowers, students will discuss health issues such as sleep, time management, living and learning in a diverse community, mindfulness, positive psychology and stress management, media literacy, social practices in a digital landscape, and integrating into their new class. All topics will be addressed in the context of adjusting to a campus community, accessing resources and understanding school rules. We aim to enable students

to build self-efficacy and prepare for challenging health and lifestyle choices through the development of effective communication and decision-making skills. The pass/no pass grading system encourages student participation, honesty and sharing in a supportive and more relaxed environment. *Required of all new lowers. Two single class periods per week in the fall term, which may include reserve periods.*

HHD240: THRIVING IN COMMUNITY

In this term-long, age-appropriate course, required for all lowers, students will discuss a variety of health issues, such as mental and psychological health, character development, cultural competency, gender, sexuality, consent/healthy relationships, and alcohol/drugs. This course is focused on helping students navigate some of the most common health concerns for their age group. We aim to enable students to build self-efficacy and prepare for challenging health and lifestyle choices. Intentionality is explored throughout the term so that students will develop effective decision-making skills with purpose and thought. With the help of the College Counseling Office, we will explore identity development and self-authorship, foundational aspects to a student's transition from adolescent to young adulthood. The pass/no pass grading system encourages student participation, honesty and sharing in a supportive and more relaxed environment focused around a growth mindset. *Required of all lowers. Two single class periods per week in the winter or spring, which may include reserve periods.*

HHD310: TEEN HEALTH MATTERS FOR UPPERS

In this first-term, age-appropriate course, required of all new uppers, students will discuss health issues such as sleep, time management, living and learning in a diverse community, mindfulness, positive psychology and stress management, media literacy, and social practices in a digital landscape. All topics will be addressed in the context of adjusting to a campus community, accessing resources and understanding school rules. Together, all new uppers will explore how to fully integrate into their new class and how to have a healthy, mindful transition to PEA. A special emphasis on relationships will enable new uppers to build self-efficacy skills and prepare for challenging health and lifestyle choices through in-depth conversations about effective communication and decision-making. The pass/no pass grading system encourages student participation, honesty and sharing in a supportive and more relaxed environment. *Required of all new uppers. Two single class periods per week in the fall term, which may include reserve periods.*

HHD340: NAVIGATING HEALTHY CHOICES

Building on skills learned in previous HHD courses, in the upper year students will explore developmentally appropriate topics known to be most influential for navigating their upper year. This course will focus on the most common health issues for their age group, including sexual health, being a bystander, drugs and alcohol, stress management, cultural competency, preparing for senior year, and building life skills that support the development of civilized and engaged community citizens. Throughout the term, selfexploration and empowerment will be encouraged to help students develop greater understanding, deeper selfknowledge and improvement of one's selfimage and selfesteem. Students will develop effective communication skills to help them build selfefficacy and resiliency. The pass/no pass grading system encourages student participation, honesty and sharing in a supportive and relaxed environment focused around personal growth. *Required of uppers. Two single class periods per week in the winter or spring, which may include reserve periods.*

HHD410: TEEN HEALTH MATTERS FOR SENIORS

In this firstterm, ageappropriate course, required of all new seniors and postgraduates, students will discuss health issues such as sleep, time management, living and learning in a diverse community, mindfulness, positive psychology and stress management, media literacy, and social practices in a digital landscape. All topics will be addressed in the context of adjusting to a campus community, accessing resources and understanding school rules. Together, all new seniors will explore how to fully integrate into their new class and how to have a healthy, mindful transition to PEA. A special emphasis on decisionmaking as they become emerging adults will help students make decisions about their future that offer complexities of choice. Indepth conversations will enable new seniors to build selfefficacy skills and prepare for challenging health and lifestyle choices. The pass/no pass grading system encourages student participation, honesty and sharing in a supportive and more relaxed environment. *Required of all seniors and postgraduates. Two single class periods per week in the fall term, which may include reserve periods. Seniors who were SYA for upper year will join this course for the fall, making a substitution for their 340 course.*

HHD490: CROSSROADS: YOUR FUTURE, YOUR HEALTH FOR SENIORS

Seniors have much to look forward to, but also have many challenges facing them as they complete their work at PEA. In this seminarstyle course, seniors will have the opportunity to consider common health questions and concerns as they prepare to transition to college or career settings. We will utilize health data as well as students' individual concerns to guide our discussions, seeking guideposts for healthy living in these exciting and challenging times. The course is graded on a pass/no pass basis. *Required of all seniors, one class period per week, which may be a reserve format, as well as limited assignments. Offered in spring term. Note: Seniors who will be enrolled in an offcampus program during the spring term will enroll in HHD490 in the winter term. Seniors who are SYA will be assigned a health educator who acts as an additional resource for the student to strengthen connections back to PEA.*

HHD502: A STUDY OF HUMAN SEXUALITY

Through reading, research and discussion, students will study the biological, psychological and sociological aspects of human sexuality while considering the political, ethical, legal, historical and cultural forces that shape human sexual behavior. Students will reflect on what is known about sexual functioning and behavior as well as discuss and debate what is not fully understood. *Open to seniors. Offered: spring term.*

HHD503: THE POWER WITHIN: PHILOSOPHY & SCIENCE OF OPTIMAL HEALTH

How can we best manage life's competing challenges? How should we measure success? What are the most effective means to enhance one's capabilities, strengths and health status? We will aim to answer these and other questions by studying traditional teachings and practices, as well as the insights and lessons offered by modernday behavioral science and neuroscience. Through reading, research, reflection, personal practice and experimentation, students will investigate the theories, models and methods that have proven to enhance wellbeing. *Open to uppers and seniors. Offered: winter term.*

HHD504: THE HUMAN PURSUIT OF EUPHORIA

This course will explore the use of mindaltering substances throughout history, across cultures and within subcultures of the United States. From a biochemical, sociological and psychological standpoint we will probe the reasons why people seek to alter their state of being, whether through the use of drugs or through natural means. Readings will include selections such as: *The Compass of Pleasure* by David Linden; *Flow: The Psychology of Optimal Experience* by Mihaly Csikszentmihalyi; and *Forces of Habit* by David Courtwright. *Open to seniors. Offered: winter term.*

History

Knowledge of the past allows students to understand the present, to consider their own beliefs and to develop empathy for those different from themselves. To further these goals, the history curriculum at American Education Online offers a historical perspective on the contemporary world and trains students in the skills of critical reading, speaking and writing. Class discussions around the Harkness table focus on historical issues that challenge every student to think independently and to articulate ideas in a clear and well-supported fashion. “Why?” or “What do you think?” questions are more central to the history classroom than “What happened?” As in class discussions, writing assignments focus on helping students develop clarity and sophistication with an emphasis on exposition and analysis.

All courses, except for History 420 and 430, may be taken without a prerequisite. Students may sample different areas or take courses in sequences that emphasize key themes and developments of both the Eastern and Western traditions. Many offerings emphasize parts of the world and cultures outside those of Europe and the United States, and taking one of these courses is a diploma requirement for three-year and four-year students. (See courses listed below.) Additionally, the department strongly encourages students to take at least one history course from the department’s offerings before beginning the United States history sequence.

Introductory courses, numbered in the 200s, are open to juniors and lowers. 200-level courses emphasize fundamental skills in the study of history and the social sciences: gathering and interpreting evidence, analyzing concepts, and generalizing and synthesizing in frequent written exercises.

Intermediate courses, numbered in the 300s, are open to lowers and uppers. They utilize more difficult materials, involve the study of more complex concepts and demand a higher level of competence than the 200-level courses.

All introductory and intermediate courses include a library research project, typically culminating in an essay.

Advanced courses are numbered in the 400s and 500s. Open to uppers and seniors, the American history sequence — 410, 420 and 430 — is a rigorous, yearlong course and is required for the diploma. Each term of the U.S. history sequence includes a significant historical research project and time in the library dedicated to research. The fall term emphasizes how to begin a work of research and culminates in a paper, annotated bibliography or other work. In the winter term, students focus on the library’s extensive availability of periodicals, which culminates in a five to seven-page paper. The research paper in the spring term is expected to

be approximately 12 to 15 pages. Juniors who have excelled at the 200-level in history may apply to the department chair for permission to take 410/430 as lowers.

The 500-level courses are limited to seniors, although, on occasion, uppers are enrolled by permission of the department chair. These courses are often more topical in nature. Writing assignments and class meetings may be fewer in number than at other levels in order to accommodate more sophisticated readings and independent work.

Advanced Placement exams: The department does not confine itself to teaching in order to prepare students for standardized tests. We believe that such an approach would compromise our commitment to student-centered discussion, close reading of primary and secondary sources, and independent research and writing. Those students wishing to take AP exams in history are strongly advised to undertake sustained review on their own.

Courses in anthropology and economics are taught under the aegis of the History Department. These courses, however, do not satisfy the History requirement.

Three-year and four-year students are required to take at least one of the following non-U.S. history courses: 200, 202, 205, 206, 207, 208, 305, 307, 308, 309, 502, 556, 558, 563, 565, 566, 567, 577, 586 and 587. These courses are marked by ♦ in the individual course descriptions.

■ Introductory Courses

HIS200: THE WORLD IN THE 20TH CENTURY ♦

This course is an introduction to significant events in the 20th century. Students investigate cause, effect and change in places such as Europe, Africa and Asia (including the Middle East). One principal aim of the course is for students to develop a better understanding of the response of traditional societies to the impact of modernization on their values and customs. Another is to examine ideological conflicts of the modern world. Students also research contemporary problems that originated in the 20th century that demand creative and thoughtful solutions. Analytical skills, synthesis of conflicting viewpoints, conducting research in the Online School Library, participating in debates and writing historical essays are all emphasized in this course. *Open to juniors and lowers who have not taken a 300-level history course. Offered: fall term.*

HIS202: PEOPLES AND CULTURES OF THE MODERN WORLD ♦

This course examines people who live in the developing world and the impact of modernization and industrialization on their ways of life. Students gain a better understanding of the social, political and economic issues confronting many developing countries today as peasant peoples face and respond to the challenges of the modern institutions and technology. Students are also introduced to the skills necessary for the study of history and the social sciences. This course makes use of the library and engages in a discussion of contemporary social and political events. *Open to juniors and lowers who have not taken a 300level history course. Offered: fall term.*

HIS203: CLASSICAL GREECE

This course examines the culture, politics and society of the Greek citystates during the early and classical periods. The course emphasizes the rise and decline of democracy in Athens, as well as the conflicts with Sparta and the Persian Wars. A variety of materials introduces students to literature (such as *The Odyssey* and the plays of Sophocles), art and everyday life in addition to politics. The course introduces and develops fundamental historical skills, particularly writing. *Open to juniors and lowers who have not taken a 300level course. Offered: fall term.*

HIS204: CLASSICAL ROME

This course surveys the rise and fall of the Roman Republic and the emergence of the Roman Empire. Central themes include Roman expansion, imperialism, politics and culture. To supplement the text, students will read numerous primary sources. The course introduces and develops fundamental historical skills, particularly writing. *Open to juniors and lowers who have not taken a 300level history course. Offered: winter term.*

HIS205: THE MEDIEVAL WORLDS ♦

In the wake of the fall of the Roman Empire, three distinct and dazzling civilizations emerged. This course examines the creation of the European, Byzantine and Islamic worlds from the end of antiquity to roughly 1350, exploring the political, cultural, social and religious changes in each society. We examine the rise of the Christian Church in Europe and Byzantium, the birth and rapid success of Islam, and the impact on the values and behaviors of medieval people. Key figures, themes and events are studied, including Charlemagne, Muhammad, Justinian, mysticism, scholasticism, the Reconquista and the Crusades. We also discuss how early interactions and conflicts shaped the views each society held of the others. *Open to juniors and lowers who have not taken a 300level course. Offered: spring term.*

HIS206: NATIVE PEOPLES OF NORTH AMERICA ♦

This course surveys the history of particular Native American groups from their prehistoric entry to North America until the development of the reservation system in the 19th century.

A variety of topics will be covered as students gain exposure to anthropological, archaeological and historical resources to illuminate the changes taking place. The class begins by analyzing population movements throughout the continent. Students gain exposure to the evolution of independent cultural and social systems among indigenous tribes. Among the subjects highlighted are rituals of religion and tribal integration, ideas of family and the structure of tribal society, and the development and implementation of tribal laws. Midway through the course students will begin to examine the period of European contact and the profound social and cultural transformations that took place over the next two centuries. Both Native American and European resources from the period will guide our study of this era. During the latter half of the course, students will examine the ways in which Indian life was dramatically reconfigured as Europeans and Americans spread across tribal lands and forcefully moved Indians to reservations in the West. Throughout the term students will work with the Online School's archaeological and ethnographic holdings to gain a fuller appreciation of this fascinating subject. *Open to juniors and lowers who have not taken a 300level history course. Offered: spring term.*

HIS207: HISTORY OF CHINA: QING ♦

This course explores Chinese history with a focus on the Qing Dynasty period (1644-1912). History 207 will tackle such questions as: How can Buddhism, Confucianism and Daoism coexist in the same time? How did the role of the Qing Dynasty in global history shift across the centuries? What makes the Opium Wars (1839-1842, 1856-1860) and the Boxer Rebellion (1899-1901) turning points in modern Chinese history? How does Chinese history look different from the perspective of a rural female villager versus an emperor? What are the strongest motivating factors in these two individuals' decisionmaking? To help us explore how lived experience of this vast history can vary based on where in China one lived, what role in society one fulfilled, and which events one lived through, we will analyze a range of sources including film, fiction and scholarly assessments. *Open to juniors and lowers who have not taken a 300level history course. Offered: spring term.*

HIS208: HISTORY OF JAPAN ♦

This course is an overview of Japanese history and considers how changes in political institutions, economic patterns, social organizations, and cultural practices took shape to transform the lives of individuals across the archipelago. We will explore questions that contemporary scholars grapple with to this day: How did the role of the emperor transform from the 16th to the 18th century? Why is the samurai such a powerful symbol? How did a region poor in resources and largely isolated from the West emerge economically vital in the last hundred years? Why did the concept of progress become such a pivotal concern for the leaders of Meiji Japan in the late 19th century? What are the consequences for rapid industrial revolution? With an emphasis on primary sources, students will analyze this history in terms of those who lived it.

We will read from the perspectives of a *daimyo* reformer and a lowranking *samurai*, from an impoverished farmer and an affluent merchant, the emperor and a housewife. *Open to juniors and lowers who have not taken a 300level history course. Offered: winter term.*

■ Intermediate Courses

HIS302: EARLY MODERN EUROPE, 13501660

The centuries following the Black Death saw the beginnings of modern Europe. This course focuses on the rebirth of European society and the new values, optimism and cultural achievements of the Renaissance. It then examines the turbulence of the Reformation — the shattering of Christian unity and the wars fought in the name of religion. The course then explores the development of new politics and the Age of Exploration, when Europeans set sail and changed the shape of the world. *Open to lowers and uppers. Offered: fall term.*

HIS303: ABSOLUTISM AND REVOLUTION, 16601800

Beginning with the reign of Louis XIV, students examine 18thcentury European society. We explore how the Scientific Revolution and the Enlightenment challenged the ideas of the Old Regime and created new perceptions of humanity, society and government. The course concludes with an analysis of the French Revolution and the rise of Napoleon. *Open to lowers and uppers. Offered: winter term.*

HIS304: THE EUROPEAN CENTURY, 18001914

Beginning with the study of Napoleon's Empire and the Congress of Vienna, this course examines how the French Revolution of 1789 and the Industrial Revolution transformed European society and politics in the 19th century and established Europe's global preeminence. The course concludes with an examination of World War I, the shattering event that culminated Europe's dominance. *Open to lowers and uppers. Offered: spring term.*

HIS305: COLONIAL AMERICAS: EMPIRE, CONTACT AND LEGACIES ♦

This course examines the imperial interests, race and gender relations, and cultural influences and exchanges that manifested during the era known as Colonial America. Though the course, by the end, focuses on the colonies that would become the United States, it begins with the precontact experiences of Native Americans, Africans and Europeans and how their lives eventually converged. Relationships impacted by economic development, racism and religious fervor forged a complex, historical, multiethnic legacy that is still visible today. *Open to lowers and uppers. Offered: spring term.*

HIS307: MODERN INDIA ♦

This course examines the history of what is today the world's largest democracy. It starts in roughly 1700 with a study of the Mughal Empire and its decline, followed by the rise of British

India. We explore the East India Company and the impact of British imperialism on India. The 1857 rebellion, the beginning of direct British rule and the consequences of these major events are analyzed. We explore the development and role of the Indian National Congress, explore the emergence of Indian nationalism, and assess Gandhi and other Indian leaders, as well as the forces around independence in 1947. In the last part of the course we study India's identity from independence to today and the current issues and conflicts confronting this increasingly prominent nation. *Open to lowers and uppers. Offered: winter term.*

HIS308: PRECOLONIAL AFRICA ♦

This course introduces students to the complexity and dynamism of the African past, from antiquity to the dawn of the 20th century. The course begins with an examination of the Nile Valley civilizations in antiquity, the historical debates surrounding that era and the advent of Christianity in North Africa. Students then study the rise of Islam in Africa and the West African empires of Ghana, Mali and Songhai. Next, students examine the role played by slavery in the creation of the Atlantic World. The course ends with an analysis of the dynamics of the cultural clash that ensued from the European colonization of Africa. *Open to lowers and uppers. Offered: fall term.*

HIS309: RACE: A GLOBAL HISTORY ♦

Scientists agree that there are few genetic differences between people of different races and ethnicities. Social scientists thus contend that racial distinctions are a product of society and culture rather than biology. At what point, then, did differences in skin color and other phenotypic traits become significant? This course will explore the history of race and racism by looking at examples across the world. We will consider how humans have been divided into different "groups" and the historical circumstances that have led to those divisions. Case studies will include: caste groups in India, religious groups in the Middle East and Europe, African slavery, and the treatment of indigenous groups by colonial settlers in Africa, Australia, India and the Americas. We will also consider the use of scientific theories to justify racism and the more recent repudiation of these theories. Using both primary and secondary sources, students will use the methods of historical thinking to understand the evolution of racial categories and the impact of history on modernday issues related to race and ethnicity. *Open to lowers and uppers. Offered: winter term.*

HIS314: ROMAN HISTORY FOR LATIN STUDENTS

Similar in scope to HIS204, this course is taken simultaneously with LAT220 and provides a deeper historical background to the authors that students will read in secondyear Latin and beyond, namely Caesar, Cicero and Vergil. Readings for HIS314 will be drawn more heavily from primary sources than readings for HIS204, and students will also be reading Latin versions of sources that

are relevant to HIS314 in LAT220. Students must register for both LAT220 and HIS314, which will meet in two separate formats with two different teachers, and students will receive two term credits. Students who have taken HIS204 may not take this course. *Open to lowers and uppers (and juniors with departmental permission). Offered: winter term.*

■ Advanced Courses

HIS410: UNITED STATES HISTORY, COLONIAL ORIGINSTO 1861

This course introduces students to the formation of American values and institutions from the early English settlements of North America through the Revolution and Civil War. Emphasis is given to the cultural, economic and social diversity of early America, the tension between local and central authority during the struggle for independence, the establishment of the Constitution, economic and social change in the young republic, slavery, and the growing sectional conflict that culminated in secession. Students will complete a library research project. *Open to uppers and seniors. A limited number of lowers may take the 410430 sequence with the approval of the department chair. Offered: fall term.*

HIS420: UNITED STATES HISTORY, 1861 TO 1941

This course continues the survey of American history with the Civil War and follows with the attempt to rebuild the union during Reconstruction. Emphasis is given to economic and social changes of the late 19th century and the emergence of the United States as a world power. Topics include the transformation of the United States into an urban industrial society, the dilemma of race, the changing role of women, the Depression and the political response to these issues. The course ends with the advent of World War II. There will be a required library research paper this term. *Prerequisite: HIS410 or equivalent. Open to uppers and seniors. Offered: winter term.*

HIS430: UNITED STATES HISTORY, 1941 TO THE PRESENT

This course begins with U.S. involvement in World War II. Emphasis is given to the Cold War and rising global involvement of the United States. Other topics include the Civil Rights movement, the social and political turmoil of the 1960s, the dual crises of Vietnam and Watergate, the Reagan revolution and issues of the contemporary world. A term paper, based on independent research, is required to pass the course. *Prerequisite: HIS420 or equivalent. Open to uppers and seniors. Offered: spring term. A student must pass all three U.S. History courses to satisfy the diploma requirements.*

■ 500Level Courses

Some courses numbered in the 500s may meet just three times per week, as determined by the individual instructor. Uppers may take 500level courses with permission of the department chair.

HIS502: GLOBAL TOPICS IN WOMEN, GENDER AND SOCIETY ♦

This course explores the role of gender in shaping humans' identities and power structures in several 20thcentury circumstances around the world. Questions of political and legal rights, including emotional equity, public health and definitions of marriage, as well as social issues, such as wearing a veil, family concerns, and work inside and outside the home may be considered. The larger goal is to compare how gender distinctions have shaped human experiences across different cultures in the past century. Our readings will include historical and journalistic sources. This course will conclude with a discussion of what we learn about gender in society from the experience of transgender individuals. *Open to seniors. Offered: spring term.*

HIS503: WORLD WAR AND EUROPEAN SOCIETY, 1890TO 1945

At the pinnacle of its power and confidence at the start of the 20th century, Europe could not have imagined the crises, mainly of its own making, that it would face between 1914 and 1945. In this course, we examine the era when Europe was shattered by two world wars, an unprecedented international depression, and the rise of totalitarian states in the Soviet Union and Nazi Germany. We examine why Europeans cheered for the Great War when it began in 1914, and how four years of industrial warfare and diplomatic failures contributed to catastrophes that followed. We then explore European culture during the interwar period called the Age of Anxiety, the Russian Revolution under Lenin and Stalin, the floundering of the democracies, and the rise of Hitler and Mussolini. We give considerable focus to World War II and the Holocaust. *Open to seniors. Offered: winter term.*

HIS504: EUROPE SINCE 1945

Once the region of geopolitical domination, Europe after World War II was forced to rebuild and redefine its place in a rapidly shifting world. This course examines the change in Europe's position as it contended with the Cold War's series of freezes and thaws; economic, political and social developments, such as the student revolts of the 1960s; and the dramatic decade of the 1980s with Thatcherism, Gorbachev, the fall of the Berlin Wall and communism. Topics analyzed include modern leadership in Germany, Great Britain and France; the Soviet Union from Stalin through its collapse; Eastern Europe's transition from communism, and the European Union. We will conclude by examining Europe's current position in the contemporary world. *Not offered 202020.*

HIS506: CAPITALISM AND ITS CRITICS

This course provides a survey of the origins and evolution of capitalism in a global world up to the present, with emphasis on the political economies of the West. Students examine the ideas of the great political economists such as Adam Smith, David Ricardo, Thomas Robert Malthus, Karl Marx, J.M. Keynes and Friedrich

von Hayek, as well as trace the progression of modern industrial economies in Europe and the United States. The course ends with an analysis of the 2008 financial crisis and the Occupy movement. *Open to seniors. Offered: fall term.*

HIS508: UNDERSTANDING VIOLENCE, WAR AND PEACE: A HISTORICAL AND THEORETICAL APPROACH

This course explores the history of violence, war and peace across the globe, from ancient to modern times. Readings may include selections from a variety of disciplines, such as anthropology, ethics, philosophy, psychology and sociology. Students may consider such questions as: Is there such a thing as a just war? Are humans naturally violent? How do societies avoid violence and maintain peace? What role does technology play in shaping violent behavior? Can justice be achieved through the use of violent means? Is peace a realistic possibility in a globalized world? Is there more to peace than an interim between wars? *Open to seniors. Offered: winter term.*

HIS550: AMERICAN POLITICS AND PUBLIC POLICY

This course introduces students to the unique process by which American governments develop policies to address the nation's most significant problems. In addition to studying specific policy issues, students will read about Congress and the presidency, political parties, elections, ideologies, the role of media and the psychology of politics. Each student will research one policy issue and make a formal presentation to the class. This course may incorporate a servicelearning component as an aspect of the final project. *History 550 cannot be substituted for the required 400level U.S. requirement, or the non-U.S. history requirement. Open to seniors. Offered: fall term.*

HIS553: LAW AND AMERICAN SOCIETY

This course provides students with an introduction to the American legal system and to the development of American constitutional law. Historic Supreme Court decisions and legal case studies will be used to develop an indepth understanding of the historical background and presentday constitutional controversies over such topics as free speech, censorship, abortion, workplace discrimination, affirmative action and the rights of the accused. Practitioners from the fields of law and criminal justice may provide an added dimension to the course. *HIS553 cannot be substituted for the required 400level U.S. requirement or the non-U.S. history requirement. Open to seniors. Offered: spring term.*

HIS554: REVOLUTIONARY RUSSIA

This course examines Russian history from the Decembrist uprising of 1825 to Stalin's show trials and the destruction of the Old Bolsheviks in the late 1930s. After a brief survey of autocracy and orthodoxy in Old Russia and westernization under Peter the Great, students focus on the 19th and early 20th centuries, with emphasis on the French Revolution and the Napoleonic Wars, the development of the revolutionary tradition, the rise of Marxism,

the Bolshevik Revolution, the Civil War, MarxistLeninist theory in practice, and Stalin's dictatorship. Special attention is given to Russian literature, with works by Pushkin, Gogol, Turgenev, Dostoyevsky, Tolstoy, Chekhov and Koestler. *Open to seniors. Offered: winter term.*

HIS556: WHY ARE POOR NATIONS POOR? ♦

This course will examine the plight of developing nations. Students will explore why the quality of life of these countries' citizens remains, in the aggregate, so low and their choices so limited. Topics to be considered include the historical legacy of colonization, cultural and social issues, geography and climate, agriculture and famine, human capital, governance and corruption, and foreign aid, debt and trade. Case studies will be examined comparing various nations in Latin America, Africa and Asia. *Open to seniors. Offered: winter term.*

HIS558: GENOCIDE IN THE MODERN WORLD ♦

This course studies the history of genocide in the 20th and 21st centuries, exploring both the patterns and unique circumstances of this important global issue. Students read and hear from historians, victims and perpetrators. Likely case studies are the Holocaust, Cambodia, the Balkans, and Rwanda, with time set aside for research into events determined by student interest. Students study root causes, including economic, political and social factors that permit the occurrence of genocide; assess international responses; and evaluate attempts at reconciliation, including justice systems and community reactions. The comparative nature of the course creates a framework to draw broad lessons about what leads to genocide in the modern world; enables us to assess the behavior, actions and inaction of the various groups involved; and pushes us to consider how these lessons could be applied to prevent such crimes in the future. *Open to seniors. Offered: spring term.*

HIS563: VULNERABLE CONQUERORS: HUMANS AND THE ENVIRONMENT ♦

What drives human history? To a great extent, the pivotal factors lie beyond human control: climate, geography, soils, microbes, plants and animals. This course examines the interactions between people and the natural world, over time. In struggling to master an often hostile environment, human societies have had an everincreasing impact on the planet, and apparent success has often ended in failure. The course begins with the emergence of humans in the Paleolithic era and then explores the invention of agriculture, the emergence of global trade and migration networks, the discovery of the New World, and the Industrial Revolution. Students examine in depth one instance of humans managing — or mismanaging — a natural resource, and conclude the course with a close look at 20thcentury trends and the future we collectively face. A core theme is the paradoxical nature of humans: their impressive ability to innovate, coupled with their talent for destroying the world around them. *Open to seniors. Offered: winter term.*

HIS565: MODERN CHINA ♦

This course examines China's dramatic recent history through multiple lenses: historical survey, biography, memoir, film and journalism. We begin by identifying key themes and questions to guide our study. Then we move back in time to the 19th century, when contact with Westerners provoked war and internal rebellions. We examine the decline and eventual collapse of the imperial dynastic system, the rise of warlordism, an experiment in weak republican government, the prolonged civil war, China's role in World War II, the founding of the People's Republic, the thought and governance of Mao Zedong, the economic and social reforms of Deng Xiaoping, and China's entry into the global marketplace. The last part of the course utilizes a variety of current sources to address the major issues facing China in the 21st century. *Open to seniors. Offered: spring term.*

HIS566: MODERN LATIN AMERICA ♦

This course examines how modern social and political institutions developed in the region that includes Central and South America and the Caribbean. We begin by questioning why such diverse places are imagined as a single region. We explore how colonialism shaped the region and how independent nations emerged from European political control in the early 19th century. Through a series of case studies, we then examine selected social, political and economic issues that shaped Latin America in the 19th and 20th centuries. *Open to seniors. Offered: spring term.*

HIS567: MODERN ASIA: CONTESTED HISTORIES ♦

How and why do different national histories define themselves in competition with those of their neighbors? This course will focus on how recent trends in the writing of history are applied to the context of contemporary Asia including China, India, Indonesia, Japan, Korea, Thailand and Vietnam. These topics will be explored through a range of sources including film, memoirs, fiction, periodicals and scholarly assessments that reflect the diversity of experiences across Asia. Topics will include Marxist history, cultural history, gender, memory, modernity and ethnicity. This course will rely on students to conduct independent research throughout the term in digging through contested topics and historical controversies, including but not limited to competing national histories of imperialism, colonization, and nationhood in the 20th century. *Open to seniors. Offered: fall term.*

HIS577: RAINBOW NATION? — HISTORY OF MODERN SOUTH AFRICA ♦

This course is a study of the rise and fall of the racial segregation system that became known as apartheid in South Africa — the land of Nelson Mandela, Miriam Makeba, and Trevor Noah. Grounded within the context of African national liberation, the course begins with an examination of the historiography of the geopolitical, economic, and social forces behind the creation of the apartheid system in 1948. It then looks at the ideology and praxis of apartheid and the dynamics of the resistance it engendered across race, class, gender,

and generational and ideological lines. Special attention is paid to the role of the expressive arts, notably music of resistance, and the climactic events that led to the collapse of apartheid and ushered in a democratic and modern South Africa, known in some quarters as the “Rainbow Nation.” The course ends with an examination of the impact of the Truth and Reconciliation Commission, on the one hand, and the intractable legacy of inequality amidst the neoliberal agenda of the state, on the other hand, with a view to inquiring into the extent to which the “Rainbow Nation” remains a myth or a reality. *Open to seniors. Offered: winter term.*

HIS586: CONTEMPORARY MIDDLE EAST ♦

The course begins with the breakup of the Ottoman Empire and examines the rise of Arab nationalism and the struggle against foreign domination. The strategic and economic importance of the region is studied along with the founding of Israel; the continuing conflict among Jews, Arabs, and Christians; and the rise of Islamic fundamentalism. Particular emphasis is placed on understanding the Arab-Israeli conflict. *Open to seniors. Offered: fall term.*

HIS587: SALEM WITCH TRIALS IN PERSPECTIVE: A GLOBAL HISTORY OF WITCHCRAFT ♦

The Salem witch trials and the phenomena that produced witch accusations in the Massachusetts Bay Colony in 1692 have garnered the attention of writers from Nathaniel Hawthorne to Arthur Miller and continue to hold the attention of numerous scholars today. Students enrolled in this course will begin by focusing their study on the witch trials while having an opportunity to contribute to the Salem Witch Trials Documentary Archive and Transcription Project at the University of Virginia. Through the use of this electronic medium, the distant past may be more intimately understood by students as they study the individual decisions, institutional forces and cultural assumptions that changed America's colonial past and ultimately gave resonance to the term “puritanical.” But the history of Salem is also intimately bound to a larger global history, dating back to antiquity, of concepts and practices that concern witchcraft. While students taking this course will spend considerable time examining the events of Salem, they will also gain an understanding of the global context in which practices of witchcraft, sorcery, magic and voodoo emerged. Numerous questions will guide our study, including: What is the relationship between power, purity and gender? How do cultures shape and restrict practices around what is taboo? What is magic, and how does it differ from religion? How were claims about the devil used to structure social power? Fundamental to our study are the culturally constructed terms

of “deviance,” “order” and “persecution.” In considering these subjects, students will focus their attention on women, the mentally ill, the physically lame, and those ostracized by society for myriad reasons and who were ultimately viewed as susceptible to the workings of the devil. *Open to seniors. Offered: fall term.*

HIS590: SELECTED TOPICS IN HISTORY

The topic of this course will change year to year. The selected topics course for 202020 will be:

HIS590: AMERICAN SLAVERY, AMERICAN CAPITALISM

Historians traditionally claimed that slavery was an anachronistic institution that ran counter to the economic and industrial development of the U.S. Sooner or later, many historians argued, slavery was destined to come to an end because it was an outdated and premodern system diametrically opposed to the forwardlooking, freelabor system of industrial capitalism emerging in the North. Based on a wide range of new scholarship that examines slavery in the context of the international capitalist economy, this course challenges the notion that slavery was anomalous and places it at the center of America's economic development. Where earlier historians attribute this development to white immigrants and creative inventors in the North, we will explore the ways that slave trading entrepreneurs and their various economic innovations, including ever more brutal and cruelly efficient systems of slave labor, played a role in America's rise as an economic and imperial powerhouse. It was in the plantations of the South, not in the North, for example, that a modern banking system emerged, underwritten by investments in the bodies of human beings. Using quantitative and statistical data, students in this course will reexamine slavery to reconstruct American economic development. Readings from the new economic histories of American slavery, along with primary sources such

as newspapers and slave narratives, will illustrate the stories of capital, finance, cotton, labor and technology. *This course cannot be substituted for the 400level U.S. requirement, or the non-U.S. history requirement. Open to seniors. Offered: winter term.*

HIS600: SENIOR RESEARCH SEMINAR

This advanced seminar for seniors will offer students the opportunity to conduct work similar to that of professional historians. Students will choose a research topic, conduct primary research in available archives, and write a publishablelength (approximately 25 pages), original research paper, similar to the quality of papers published in scholarly journals. For the most part, students will work independently on their own research projects. In addition to consulting primary and secondary sources available online or through the school's library, students have the opportunity to conduct archival research. Students will complete smaller assignments such as a research proposal, an annotated bibliography, a detailed outline, and a full draft of their paper prior to the completion of the final assignment. While students will be allowed to choose their own research project with the approval

of the instructor, they will also engage with the research of their classmates in class meetings; in workshops, students will read the drafts of others' work and provide comments and suggestions. *Prerequisite: History 430 or equivalent. Students must complete an application for this course and then receive departmental approval. This course does not fulfill the U.S. or non-U.S. History requirement. Open to seniors. Offered: winter term. Limited to 10 students.*

Integrated Studies

In the words of biologist E.O. Wilson, "We are drowning in information, while starving for wisdom. The world henceforth will be run by synthesizers, people able to put together the right information at the right time, think critically about it, and make important choices wisely." Integrated Studies courses are positioned in this aspirational space, encouraging students to make connections across disciplinary lines and utilize skills they have developed in different disciplines.

INT419: BIOETHICS

Humans' capacity to alter their world at the biological level has risen to new heights in the past 50 years. With advanced technologies such as gene editing, cloning and stem cell research, medical procedures such as organ donation, abortion, IVF, and biological manipulations of our food production systems and ecosystems in the news daily, a discussion of the ethical underpinnings of these technologies is requisite. What is the right thing to do? What is worth the most time, effort and resources? What are our obliga

tions to each other and other organisms on which we depend? Who is responsible for the outcomes of the science, to whom and for what? Is there a moral question here, and how should we respond? The study of bioethics is multidisciplinary. It integrates ideas from theology, history, philosophy and law with modern medicine, healthcare and biological research. This course is teamtaught by a religion teacher and a biology teacher who will dive into significant questions that are as basic as the meaning of life, when does it really begin and end, how do we attenuate the pain and suffering of other beings, what are our rights, and what is the responsibility that comes with those rights? We will not only discuss the ethics of several biological techniques but also learn the biology involved and spend time in the lab performing some of them ourselves — for example, running a lab using the CRISPR/Cas 9 system to do gene editing. *Prerequisite: one year of introductory biology. Students may choose to take the course for either a Religion or Biological Science credit, which will determine the nature of their final project. Open to uppers and seniors. Offered: fall term.*

INT503: THE WORLD SEEN THROUGH A DAILY NEWSPAPER

The materials and issues of this course are derived from an intensive reading of the daily *New York Times*. Students track various geopolitical, economic and social issues as they are reported in the newspaper during the course of the term. Class time is devoted to an analysis of these issues, as well as to a discussion of whatever stories appear in the newspaper on a given day. Occasional background materials are included to help students place daily events in a larger historical context. *Open to seniors. Offered: spring term.*

INT504: HUMAN RIGHTS

“An injustice committed against anyone is a threat to everyone.” — Montesquieu

In this course we will examine the origins of ideas about human rights as well as those documents, such as the Universal Declaration of Human Rights, that define contemporary understanding of those rights that assure freedom, dignity and respect for each human being. We will examine United Nations human rights legislation as well as organizations such as Human Rights Watch and Amnesty International, whose work is dedicated to protecting the rights of people around the world. Our work will include case studies and examination of one or more civil and political rights (for example, children’s rights, freedom of speech rights, torture and prisoners’ rights), and at least one socioeconomic or cultural right (for example water, education or the environment). We may also study genocides of the 20th and 21st centuries in places like Rwanda and Darfur. Reading for the course will include Samantha Power’s *A Problem from Hell: America and the Age of Genocide*, as well as material particular to the various case studies and documents that make up the course. Films and outside speakers will provide additional resources for our study. *Open to seniors. Offered: spring term.*

INT508: A STUDY OF SPORT IN SOCIETY

This course will examine the influence of sport on our contemporary global society. Exploring issues of race, class, education, coaching, gender, and the overall impact of the multibillion dollar industry sport has become, the course will draw on the fields of sociology, psychology and history. Resources will include guest speakers, video, articles and texts, including *Aretism: An Ancient Sports Philosophy for the Modern World* and *We Own This Game: A Season in the Adult World of Youth Football*. *Open to seniors. Offered: spring term.*

INT519: GREEN UMBRELLA LEARNING LAB (GULL)

Seminal sustainability thinker and Oberlin College professor David Orr states that “big changes start in places small enough to be innovative and agile, but large enough to be important.” American Education Online is just such a place, and the Green Umbrella Learning Lab (GULL) is just such a space. This course affords students passionate about sustainability the opportunity to enact these “big changes” by doing real work in sustainability to help American Education Online meet its Sustainability Master Plan and carbon reduction goals. Students will work in close prox-

imity with their instructors and with the Green Umbrella Advisory Board (formerly SAC) to research, design and implement relevant campus sustainability projects that benefit our community. If for example, students would like to pursue a renewable energy project, then they would work closely with the instructor(s) to craft a regimen of supplementary readings, conversations, research, site visits, and anything else that might inform students’ projects and deepen their context as they deepen their learning. Students will engage with experiential, placebased, interdisciplinary problem solving requiring a confluence of skills they have been building throughout their American Education Online careers. In an attempt to promote dialogue within our broader community, an additional component of this course will require students to collaborate with a team of peers from American Education Online High School to design and carry out an additional, appropriately scaled sustainability project beyond our campus boundaries within the town of American Education Online. Students will keep a detailed reflective journal about their work, submit a thorough project selfreflection, and give a formal demonstration of learning to a panel of faculty, staff and community members. Project ideas will be farreaching but might include a plan to establish dorm composting; the design and implementation of a learning greenhouse on campus; the design of a netzero building; the establishment of locally sourced beef; or a largescale solar plan, among others. *This course meets during a reserve format in order to create a doubleformat meeting time for weekly labs. Open to uppers and seniors. Offered: fall term.*

INT529: IDENTITY, EMPATHY AND UNDERSTANDING

A 21stcentury education must prepare students to become global citizens and ethical leaders who are culturally fluent. The ability to think critically and compassionately and to make ethical and healthy choices is becoming more challenging every day, as we contend with the social, political, economic and environmental issues of our time. Through the exploration of their own, and others’, identities, students in this course will begin to develop competencies with regards to diversity and equity — necessary skills to thrive in our world. Students will examine the cultural lenses through which they experience the world and are perceived by others, as well as learn about the historical, social and economic contexts of oppressed and underrepresented groups, augmenting their perspective and understanding of what it means to live in a diverse community and world. The class will focus on a different aspect of identity each week, and explore these through the reading of texts and engagement with each other. Students will be asked to respond to readings in short reflection pieces, and they will write a final paper reflecting on their personal growth over the course of the term. The class may collect these reflections and create an anthology to be shared with the community. Students will also examine the appropriate and ethical use of online forums.

This course will be a place where students can ask tough questions about their own and others’ identities and think critically about issues of equity in our society. It will be a 10week process that will hopefully lead students to want to continue conversations about diversity, equity and social justice on our campus, and take future

classes about similar topics in college. If possible, we will attend a conference, such as the White Privilege Conference, that provides specific topics for highschool age attendees. *Open to uppers and seniors. Offered: fall term.*

INT550: SPORTS SCIENCE

This course is for students interested in developing a more solid understanding of the science behind performance enhancement. It draws from many disciplines, including physics, anatomy, physiology, biomechanics, kinesiology and computer science, as it explores the relationships among science, exercise and sports activities. Through indepth study of the musculoskeletal and cardiovascular systems and evaluations of those systems as they relate to exercise and activity, students will be able to safely assess, design, prescribe and update exercise programs.

The goal of the course is to have students understand and produce a scientifically based training and fitness plan to help themselves and others more effectively prepare for the sport or activity of their choice. Labbased, the course requires students to perform and measure simple activities, using several software packages in the Sports Science Lab, including Body Works, Ultra Coach and the N.E.A.T. videocomputer interface. The text, *The Manual of Structural Kinesiology*, is supplemented with handouts from current journals such as the *Journal of Science in Sport and Exercise* and *The Journal of Strength and Conditioning*. Field trips to local exercise physiology labs are planned. There are no specific prerequisites for this course; however, students signing up for Sports Science should have a keen interest in sports and/or physical activity. *This course does not meet the Physical Education requirement. Open to seniors. Offered: spring term.*

INT552: SCIENCE, TECHNOLOGY AND PROFIT IN SOCIETIES

In this course we will examine the interrelation of science and social progress. As we will see, legal and governing systems are inextricably linked to scientific progress, and science is a catalyst for social change. Profit and fortune seeking is a common denominator to both. We will examine cases of this relation in a wide range of time and places: from Mesopotamia to Silicon Valley. It is hoped that this survey of ideas and events will serve the students as a springboard for thought and action when in college and later in their working lives.

Texts: *The Day the Universe Changed* by James Burke; *Guns, Germs, and Steel* by Jared Diamond; *Galileo's Revenge: Junk Science in the Courtroom* by Peter Huber; *The Economy of Europe in an Age of Crisis* by Jan de Vries. Part of the course will be reading and relevant videos, and part will be student presentations and studentdirected discussion. *Prerequisite: Two years of lab science. Open to seniors. Offered: spring term.*

INT553: SOCIAL INNOVATION

Social innovation is often defined as the creative pursuit of solutions to social or environmental problems. In this course, students will spend the first half of the term exploring and discussing case studies of social innovation projects. These case studies, along with texts like

Thinking, Fast and Slow by Daniel Kahneman and *Insight Out: Get Ideas Out of Your Head and Into the World* by Tina Seelig, will provide us with a working vocabulary for creative problemsolving methodologies and a historical understanding of successful endeavors from the past. The second half of the course will be devoted to studentdesigned group projects that tackle realworld problems. Groups will share their progress and elicit feedback from the full group through periodic presentations and reports. The class will operate at this stage as a laboratory for collaborative problem solving and will explore the range of strategies that can be used to tackle what social planners refer to as "wicked problems." Some student groups may decide to enter their project in the University of New Hampshire's Social Venture Innovation Challenge at the end of the term. *Open to seniors. Offered: fall term.*

INT554: DESIGN THINKING: CREATIVE PROBLEMSOLVING WORKSHOP

Design thinking is a problemsolving process that has led to many innovations in fields ranging from medical products, to engineering, to education, and even to children's toys. Some of the key ideas within the method are designing with a humancentered approach, using prototypes to facilitate design decisions, and embracing design refinements based on feedback. Students at Stanford, a leader in design thinking, used the method to design a lowcost infant warmer that reduces infant mortality in developing countries. Other students have created products featured on Kickstarter, such as a selfwatering kitchen garden and a reinvented bicycle bell. At the start of the term, students in this class will learn about and apply each of the aspects of design thinking in a series of small projects in which they will work together to create solutions to realworld needs and problems. These projects will ask students to interview others to learn of their needs; to ideate with their peers to identify possible solutions; to build prototypes early and often; and to incorporate feedback to improve their design solutions. Tools and materials appropriate to making prototypes will be available. In the latter part of the term, students will choose their own largerscale projects and spend the rest of the term developing them. They will have the class group for support and collaboration as they work through their projects individually or with a partner.

Open to seniors. Offered: spring term.

American Education Online Innovation

approach on a campus issue of their choice. They will work with the School Participatory Action Research Collaborative, a research consortium centered at the

The Online School created American Education Online Innovation courses to experiment and promote creativity across all disciplines. By design, these experiential opportunities embrace the confluence of classroom learning at the Harkness table and the meaningful learning experiences in co and extracurricular activities.

EXI539: FROM BESSIE SMITH TO BEYONCÉ: A HISTORY OF BLACK WOMEN PERFORMERS IN AMERICA

Aretha is gone! Beyoncé is queen! Nicki Minaj is fighting with Cardi B! This interdisciplinary course examines black women performers from the early 20th century to the present. Course discussion and materials will be anchored by the question “How do black women performers negotiate past and present stereotypes of black womanhood and play off these typologies?” In order to answer this question, students will study and discuss pivotal early 20th century movies, performance clips, music lyrics and popular magazines, as well as leading contemporary scholarship on black women’s “performativity” and embodiment. Students will also read late 19th and early 20th century primary and secondary sources to better understand the lived experiences of black women, cultural formations in the African diaspora and antebellum stereotypes that have endured for over a century. Students will learn to use methods from history, art criticism, sociology and cultural studies to work with the above material. *Open to uppers and seniors. Students may choose an English or History credit. The History credit may not be used to fulfill the 400 level U.S. requirement or the non-U.S. History requirement. Uppers may not use the English credit to fulfill the English 400 or 500 level requirement. Offered winter term.*

EXI549: THE ART OF LIVING WITH LOSS AND GRIEF

In this course we will explore the mysteries of death and dying, how we experience loss individually and the many cultural rituals that may influence our healing processes, some of which we actively choose; some of which we can discover and study; and some of which are already a part of our individual human landscape. What is universal? What is culturally distinct? What language do we use to talk about loss and healing? Students in this interdisciplinary course will have the opportunity to explore these questions and more through the study of literature, film, art, theory, philosophy and crosscultural conceptions. *Open to uppers and seniors. This course earns a credit in Health and Human Development but may not be used to fulfill HHD requirements. Offered fall and winter terms.*

EXI559: AMERICAN EDUCATION ONLINE STUDY: SHETH PARTICIPATORY ACTION RESEARCH COLLABORATIVE

The purpose of American Education Online Study is to systematically mobilize student insights and voices to improve school culture, policy and practice. Students in this course — an extension of an existing program named for an alumna of the Online School — will design, complete and analyze a social scientific study with an intersectional

University of Pennsylvania. Students will learn qualitative research methods, basic statistics, and relevant social theory. Guided by American Education Online faculty, as well as a variety of checkpoints and meetings with an adviser from the research collaborative, students will learn to write a research memo; complete a literature review; analyze quantitative data from surveys such as the Comprehensive Assessment of Student Life; collect qualitative data in the form of focus groups and interviews; use the process of open coding to analyze qualitative data; and compile the results. Students will interpret what they learned and develop an action plan with relevant PEA faculty and administration. A selection of students will present the group's research at a roundtable forum for member schools hosted at the University of Pennsylvania. Further, students may have the opportunity to present their findings to various constituencies: the student body in an assembly, the principal, the trustees and other committees relevant to the research. *Open to lowers and uppers (seniors with instructor permission). Meets twice per week in the fall, winter and spring, providing 1/3 credit each term. Students must sign up for all three terms. This course will be graded pass/fail.*

EXI569: LEADERSHIP IN SPORTS AND BEYOND

Leadership is not a line on a resume; it is not a title, position or rank. Leadership is a process, an action. In this course, students will learn about different leadership styles through the lens of athletics, in hopes of developing themselves as true leaders. The world of sports is rife with great leaders. This course will explore how leadership manifests itself on the field and from the sidelines, and how that may transfer to other aspects of life. Students will study leaders from a wide range of sports and levels, possibly including John Wooden, Bill Belichick, Pat Summitt, Derek Jeter, Serena Williams and more. Students will learn about the relationship between leaders and followers and the importance of conflict resolution and team dynamics, and they'll discover how they can lead others to make a difference. With the lessons learned from past leaders and knowledge gained about leadership concepts, students will work to develop their own personal leadership philosophy. Much of this course will be interactive and dedicated to practicing the skills needed to demonstrate leadership. In the final term, students will be asked to apply what they learned by developing a capstone leadership project, executing the project in our community, and then reflecting on and assessing the outcome. *Open to uppers and seniors. Meets twice per week in the fall, winter and spring, providing 1/3 credit each term. Students must sign up for all three terms. This course will be graded pass/fail.*

Mathematics

The goal of the Mathematics Department is that all of our students understand and appreciate the mathematics they are studying; that they can read it, write it, explore it and communicate it with confidence; and that they will be able to use mathematics as they need to in their lives.

We believe that problem solving (investigating, conjecturing, predicting, analyzing, and verifying), followed by a wellreasoned presentation of results, is central to the process of learning mathematics, and that this learning happens most effectively in a cooperative, studentcentered classroom.

We see the following tenets as fundamental to our curriculum:

- › that algebra is important as a modeling and problemsolving tool, with sufficient emphasis placed on technical facility to allow conceptual understanding;
- › that geometry in two and three dimensions be integrated across topics at all levels and include coordinate and transformational approaches;
- › that the study of vectors, matrices, counting, data analysis and other topics from discrete mathematics be woven into core courses;
- › that computerbased and calculatorbased activities be part of our courses;
- › that all topics be explored visually, symbolically and verbally;
- › that developing problemsolving strategies depends on an accumulated body of knowledge.

Our intention is to have students assume responsibility for the mathematics they explore — to understand theorems that are developed, to be able to use techniques appropriately, to know how to test results for reasonability, to learn to use technology appropriately and to welcome new challenges whose outcomes are unknown. To implement this educational philosophy, members of the PEA Mathematics Department have composed problems for nearly every course that we offer. The problems require that students read carefully, as all pertinent information is contained within the text of the problems themselves — there is no external annotation. The resulting curriculum is problemcentered rather than topiccentered. The purpose of this format is to have students continually encounter mathematics set in meaningful contexts, enabling them to draw, and then verify, their own conclusions. As in most Online School classes, mathematics is studied seminarstyle, with students and instructor seated around a large table. This pedagogy demands that students be active contributors in

class each day; they are expected to ask questions, to share their results with their classmates and to be prime movers of each day's investigations. The benefit of such participation in the students' study of mathematics is an enhanced ability to ask effective questions, to answer fellow students' inquiries, and to critically assess and present their own work. The goal is that the students, not the teacher or a textbook, be the source of mathematical knowledge.

Note: Math courses through MAT310/311, MAT410, MAT420, MAT430, MAT41C, MAT42C, MAT43C, and most Transition Mathematics courses, meet during the reserve formats, thus meeting approximately 10 more times per term than other courses.

■ Transition Mathematics

In order to merge new students into our mathematics program, we offer transitional courses to help students adjust to seminarstyle methodology and our problembased curriculum, and to fill gaps and cope with varied backgrounds. This is necessary because:

- › Our precalculus offerings are integrated across the standard boundaries of algebra, geometry and trigonometry;
- › Much of the content of our courses is nontraditional;
- › Word problems are the foundation of our curriculum.

Introductory courses give students and instructors additional information to determine placement for the following term. Typically, transitional courses last one term, but some extend for two or even three terms. Initial course assignments are determined by the department's committee on placement after reviewing each student's academic background, a mathematics questionnaire completed after acceptance, scores on standardized tests, and, in some cases, performance on placement tests.

The Mathematics Department at PEA believes that technology can have a positive effect on mathematics classrooms and curricula. While we encourage the use of different forms of technology, we do not require students to purchase a handheld graphing calculator. If students do wish to purchase a calculator to support their work at PEA, we suggest that they read through the list of allowed devices on the various standardized testing websites before choosing which to purchase.

■ Transition 1 Mathematics

This transition option is for students with algebra experience, but little or no background in geometry. Students are placed in one of the following three courses in the fall term.

MAT11T is for students who need a full year of algebra. It promotes to MAT120 in the winter and then to MAT130 in the spring. *Meets during the reserve format.*

MAT12T enables students to study two terms of algebra to enhance their skills and normally promotes to MAT130 in the winter, followed by MAT210 in the spring. *Meets during the reserve format.*

MAT13T is for students with a secure grasp of algebra, and it normally promotes to MAT210 in the winter. *Meets during the reserve format.*

■ Transition 2 Mathematics

This transition option is for students with one or more years of algebra and one full year of geometry. Similar to the 200level courses, these courses feature the study of geometry tied to algebra processes. Depending on their academic backgrounds, students are placed in one of the following three courses during the fall term.

MAT21T, a course for juniors, promotes to either MAT220 in the winter (and then MAT230 in the spring) or MAT23X, an accelerated course (which normally promotes to either MAT310 or MAT311 in the spring). *Meets during the reserve format.*

MAT22T normally promotes to MAT230 in the winter and to either MAT310 or MAT311 in the spring. *Meets during the reserve format.*

MAT23X, an accelerated course, normally promotes to either MAT310 or MAT311. *Meets during the reserve format.*

■ Transition 3 Mathematics

This option provides a two or threeterm transition for students with three full years of high school mathematics. MAT31T and MAT34T are primarily for entering uppers.

MAT31T/32T provides a twoterm transition into our 300level courses (advanced integrated mathematics) in the fall and winter, respectively, and normally promotes to MAT330 in the spring. *Meets during the reserve format.*

MAT34T/41T provides a twoterm transition as a bridge between our 300 and 400level courses (calculus) in the fall and winter, respectively, and normally promotes to MAT420 in the spring. *Meets during the reserve format.*

MAT31X/40X/41X, a threeterm, highly accelerated course, covers a vast breadth of precalculus topics and ends with an introduction to differential calculus. The pace is demanding and the problems that students will encounter are challenging. For students

who have completed a study of precalculus mathematics, some topics will be familiar, though likely presented in novel contexts; other ideas and techniques will be new. Open to juniors and lowers only, through strong performance on placement tests and approval of the department. *Meets during the reserve format.*

■ Transition 4 Mathematics

MATTR4 is a yearlong course for students who have finished four years of high school mathematics. The goal of this sequence is to review and reinforce the precalculus mathematics students have previously seen, while introducing new concepts and techniques central to our problemsolving curriculum. This course is designed to prepare students for the study of calculus in college. *Meets during the reserve format in fall and winter terms.*

MAT11T/120/130: ALGEBRA

These courses develop facility in working with numbers, tables, equations, inequalities and graphs. The focus is on solving word problems and reading carefully, and thus the building of algebra skills stems from the need to solve problems in a context, rather than from drill and practice for its own sake. Students learn how to use the graphing calculator appropriately as an effective problemsolving tool. In addition, students may do a number of hands-on labs that require them to collect data, make conjectures and draw conclusions. Topics covered include equations and graphs that are linear and quadratic, distinguishing linear data from nonlinear data, inequalities, the basic rules of exponents, and other traditional Algebra I topics. *Meets during the reserve format.*

MAT210/220/230: INTEGRATED MATHEMATICS

The 200level courses are geometry courses tied to algebraic processes. Students investigate lines, polygons and vectors, in both two and three dimensions. Righttriangle trigonometry is introduced, as are circles and parabolas, the latter viewed from a focus-directrix definition. Linear motion is explored, leading to the use of parameters to describe that motion and to an ongoing investigation of optimal paths of travel, an exploration motivating the frequent use of graphing calculators. A dynamic vision of geometry is further encouraged by viewing similarity and congruence through transformations. A study of the concurrence of special lines in a triangle allows for linear data analysis by the use of median-median lines. *Meets during the reserve format.*

MAT310/320/330/400: ADVANCED INTEGRATED MATHEMATICS

The purpose of the 300level courses is to enable students to expand their view of algebra and geometry to include nonlinear motion and nonlinear functions. The investigation encompasses circular motion and the functions that describe it, ellipses and hyperbolas, exponential and logarithmic functions, dot products and matrices, and geometry on the surface of the Earth. In

particular, logarithms are used to straighten nonlinear data; and matrices are used to describe geometric transformations and various patterns of growth. In preparation for 400-level mathematics, two strands are introduced: first, combinatorics and recursion, leading to the binomial theorem; second, approximation behavior, especially instantaneous rates of change and slopes of nonlinear graphs. *MAT310 meets during the reserve format.*

MAT311/321/401: ADVANCED INTEGRATED MATHEMATICS — ENRICHED

These courses cover the material of MAT310/320/330/400 in greater depth and at an accelerated pace. *Prerequisite: Permission of the department. MAT311 meets during the reserve format.*

MAT410: INTRODUCTION TO CALCULUS

Amid a rich interplay of precalculus concepts, the study of calculus officially begins. Topics include complex numbers, polar coordinates, probability, recursion, functional notation, slope, velocity, asymptotes, the fundamental constant e , the Euler identity and applications of the preceding. *Prerequisite: MAT400 or its equivalent. Meets during the reserve format.*

MAT411: INTRODUCTION TO CALCULUS — ENRICHED

This course covers the material of MAT410 in greater depth and also does some additional problems. *Prerequisite: Permission of the department.*

MAT420/430/510/520: CALCULUS

This four-term sequence presents a comprehensive and inductive approach to calculus. Working within contexts whenever possible, key concepts are developed with applications in mind. Students learn to read the language of differential equations, and to appreciate that the two principal divisions of calculus — differential (rate problems) and integral (accumulation problems) — are unified by the Fundamental Theorem of Calculus. Students who are enrolled in 430 or higher in the spring will be prepared to take the AB Advanced Placement examination. Students who are enrolled in 520 will be prepared for the BC examination. In preparation for the examination, MAT430 and MAT520 classes during the spring term may meet during the reserve formats before the examination and fewer times per week after. *Prerequisite: MAT410 or permission of the department. MAT510 and 520 will be offered when numbers permit. MAT420/430 meet during the reserve format.*

MAT421/431/511/521: CALCULUS — ENRICHED

This four-term sequence covers all the material of the 420/430/510/520 courses, with additional applications and explorations, and in greater depth. Working within contexts whenever possible, key concepts are developed with applications in mind. Students learn to read the language of differential equations, and to appreciate that the two principal divisions of calculus — differential (rate problems) and integral (accumulation problems) — are unified

by the Fundamental Theorem of Calculus. Students enrolled in 431 or higher in the spring will be prepared for the AB Advanced Placement examination; students in 521 will be prepared for the BC examination. In preparation for these examinations, MAT431 and MAT521 classes in the spring term may meet during the reserve formats prior to the examination and fewer times per week after. *Prerequisite: Permission of the department.*

MAT41C/42C/43C: CALCULUS — A LAB APPROACH

This three-term sequence of courses covers topics from differential and integral calculus. The problem-centered curriculum is built around weekly labs that emphasize graphical and numerical investigations. The focus of these investigations is to develop understanding of essential calculus concepts and their symbolic representations. Throughout the problem sets and labs, students are also expected to explore and write about the calculus ideas they encounter. *Prerequisite: MAT400 or permission of the department. This course is intended primarily for seniors. Students who complete MAT41C/42C/43C may not elect MAT410 through MAT521. Students who complete MAT420 or MAT421 may not enter into this sequence. The prerequisite for MAT42C is MAT41C; the prerequisite for MAT43C is MAT42C. Offered: MAT41C: fall and winter terms; MAT42C: winter and spring terms; MAT43C: spring term. MAT41C/42C/43C meet during the reserve format.*

MAT40D: TOPICS IN DISCRETE MATHEMATICS

The topics for this course depend on the interests of the instructor, and are usually drawn from everyday experience. They have included fair-division problems, such as apportioning the House of Representatives; network problems, such as map coloring, scheduling, minimal-cost spanning trees, and the traveling salesman; various methods for extracting group preferences from election data; and quantifying the effect that coalitions have on voting power. *Prerequisite: MAT330 or its equivalent. Offered: fall and winter terms.*

MAT40H: HISTORY OF MATHEMATICS

This is a one-semester course focusing on the historical development of mathematical ideas, the role of individual character and culture in the advancement of mathematics, and the historical context of major discoveries and changes of viewpoint. Major themes of the course include: the development of mathematics in non-Western cultures, the development of geometry and number theory, the Platonic/Pythagorean synthesis and the study of harmony, the algebraic synthesis of geometry and the early development of algebra, the arithmetization of analysis, and the development of the number concept from ancient to modern times. Both mathematics and writing will be utilized in this course and each student will choose a topic for an expository paper. *Prerequisite: MAT330 or its equivalent. Offered: spring term.*

MAT40S: INTRODUCTION TO STATISTICS

This oneterm course provides an overview of the questions addressed by statisticians. Students will discuss where data comes from, such as polls, surveys and experiments; they will study how to organize data and infer relationships between variables. Students will study enough probability to be able to discuss the role of chance and randomness in outcomes. In addition, they will decide how closely the results of polls actually mirror reality and how far the results of experiments can be extrapolated to the wider world. There will be many activities in class, and students will use the computer and calculator to display and analyze the data.

Prerequisite: MAT330 or permission of the department. Students who complete MAT40S may not elect MAT41S/42S/43S. **Preference will be given to seniors.** Offered: fall, winter and spring terms.

MAT41S/42S/43S: STATISTICS

This sequence of courses is offered fall (MAT41S), winter (MAT42S) and spring (MAT43S).

MAT41S covers the basic principles of descriptive statistics. Onevariable topics include graphical representations of data, measures of central tendency and measures of variability. Twovariable data analysis is based on linear regression. Other topics include probability distributions, sampling techniques, binomial distributions and experimental design. We emphasize the application of statistical techniques to realworld situations. Both the computer and the calculator are integral to the course. During the spring, the course also looks at the principles of hypothesis testing, including nonparametric methods used in the social sciences. *Prerequisite:* MAT330 or its equivalent. Students who complete MAT40S may not elect MAT41S/42S/43S.

MAT42S extends MAT41S by covering topics in inferential statistics, including confidence intervals, tests of significance and statistics in decisionmaking. We draw problems from the biological and physical sciences, political science, and sociology. *Prerequisite:* MAT41S.

MAT43S builds on the principles of MAT41S and 42S, including more indepth studies of probability theory. Studentdesigned projects, based on the statistical procedures learned in the previous courses, constitute important components of the course. This course completes students' preparation for the Advanced Placement exam in Statistics. In preparation for this examination, classes will meet during the reserve format before the test and fewer times per week after. *Prerequisite:* MAT42S.

MAT610/620: MULTIVARIABLE CALCULUS

This twoterm sequence reexamines the differentiation and integration processes, and investigates topics such as partial derivatives, level curves and gradients, moving frame description for space curves, the analysis of critical points, double and triple integrals, line integrals, vector analysis, the classical quadric surfaces, Lagrange multipliers, cylindrical and spherical coordinates, and Jacobian matrices.

Prerequisite: MAT520/521 or permission of the department. MAT610 offered: fall and winter terms. MAT620 offered: winter and spring terms.

MAT640: LINEAR ALGEBRA

MAT640 is an introduction to the theory of linear algebra, the study of systems of linear equations and their solutions. The

interplay between algebra and geometry affords powerful and quite different insights into the subject. Topics include: Gaussian elimination, matrices and geometric transformations, eigenvectors and eigenvalues, diagonalization, and discrete dynamical systems. Although there are some applications, this course is quite abstract. *Prerequisite:* MAT520/521 or permission of the department. Offered: spring term.

MAT700: FOUNDATIONS OF ABSTRACT MATHEMATICS

This course constitutes a bridge between calculus and theoretical, proofbased courses such as real analysis, abstract algebra and set theory. The emphasis is on understanding and mastering increased levels of rigor, dealing with mathematical notation, and learning how to write, present and analyze proofs. Course content includes axiomatic systems, the principle of mathematical induction, proof by contradiction, existence principles, mathematical logic, elementary set theory, countable and uncountable sets, bijections between sets, combinatorics, and abstract structures and isomorphism. *Prerequisites:* MAT520/521 or permission of the department. Offered: spring term.

■ Selected Topics in Advanced Mathematics

For advanced students, the Mathematics Department offers special courses that feature topics typically taught in college. Since this material can be presented with varying levels of formality, we have created two different settings for such courses, MAT690 and MAT790. The specific topics for these courses vary from year to year and are dependent upon the interests and backgrounds of the students involved. Past topics for such courses have included abstract algebra, topology, combinatorics, geometry of polyhedra and surfaces, number theory, differential equations, mathematical physics, advanced Euclidean and nonEuclidean geometry, fractals, and game theory.

MAT690: SELECTED TOPICS IN MATHEMATICS

The topics in MAT690 will be studied with an emphasis on intuition and computational facility. At the same time, one should note that commitment to pursue difficult mathematical ideas is a necessary quality for doing well. While some theorems and their proofs will be examined, the level of abstraction will be appropriate to an introductory course in advanced material. *Prerequisite:* MAT520/521 or permission of the department.

MAT690: GAME THEORY

Offered: fall term.

MAT690: NONEUCLIDEAN GEOMETRY

Offered: winter term.

MAT690: ERROR CORRECTING CODES

Offered: spring term.

MAT790: SELECTED TOPICS IN MATHEMATICS

The topics in MAT790 will be presented and developed with the full formality of modern mathematics. The mathematics presented will be characterized by rigor and depth and developed in an abstract manner. The student is expected to be able to read an advanced mathematics text and follow a presentation oriented around theorems and their proofs. Students may be expected to do some creative work in deriving mathematical results and presenting them in a rigorous fashion. *Prerequisite:* MAT700 or permission of the department.

Modern Languages

Through the study and mastery of a modern language, students develop the ability to communicate, examine literature, and look beyond the ways of particular locations or cultural norms. An exploration of alternative perspectives prepares students for engagement with a diverse and globalized world. The department values the diverse background each student brings to the Harkness table. Courses promote cultural awareness and encourage students to share stories through the examination of distinctly different ways of speaking, thinking and understanding the world. Students develop a high degree of competence to discuss literature, history, philosophies, customs and cultures of varied linguistic communities. Six term abroad programs (China, France, Germany, Japan, Russia and Spain) allow seniors to participate actively within those communities.

Students should choose the language that interests them most. They can meet the diploma requirement through Chinese, French, German, Japanese, Russian or Spanish. Those who wish to study a language begun at a previous school may take a placement test. Many students choose to begin a new foreign language either upon arrival at the Online School or after completing the diploma requirement in another language. The accelerated twoterm sequence in Italian and threeterm sequence in Arabic are for seniors only. Classes respect homework guidelines so that no language requires more work than another, and grades are consistent throughout the department.

Modern Language classes promote authentic engagement through student preparation, participation and production. Language study is at its best in small classes where students actively listen, speak, read and write; it is inherently experiential, collaborative and discussionbased. Classes foster deep thought and analysis through Harkness discussion and written assignments. Technology in the classroom enhances language learning in creative ways and includes, for example, films, video clips, music, television programs, newspapers, magazines or virtual museum visits. Whether working in small groups or around the table, students absorb other ways of thinking and being in the world while developing skills for lifelong learning.

Note: All modern language courses through Language 231, with the exception of the accelerated Italian course, meet during the reserve format. Studies in Francophone Cinema and Hispanic Cinema also meet during the reserve format.

■ Arabic

ARA111/121/131: ACCELERATED ARABIC FOR SENIORS

This sequence of courses is offered fall (ARA111), winter (ARA121) and spring (ARA131). This intensive threeterm sequence introduces students to the phonology script and syntax of Modern Standard Arabic. Students will concentrate on developing the four skills of reading, speaking, listening and writing. Texts will be supplemented with cultural materials representative of the contemporary Arabic world and will include newspapers, magazines and videos. *This course is open only to seniors. Students will be selected on the basis of proven linguistic abilities. Prerequisite: Permission of the department.*

■ Chinese

CHI110/120/130: ELEMENTARY CHINESE

This sequence of courses is offered fall (CHI110), winter (CHI120) and spring (CHI130). These courses are designed to help students develop a basic proficiency in speaking, listening, reading and writing Mandarin Chinese. Students are introduced to the Chinese script using simplified characters as well as the Pinyin Romanization system for development of accurate pronunciation and tones. By the end of the first year, students are expected to have mastered upwards of 300 Chinese characters and nearly 400 vocabulary words. Frequent oral practice, reading and writing activities familiarize students with the vocabulary and grammatical structures necessary to communicate in everyday situations. Songs, calligraphy and other cultural activities are integrated to give students a fuller appreciation of the social and cultural framework of China.

CHI111/221/231: ACCELERATED CHINESE

This sequence of courses is offered fall (CHI111), winter (CHI221) and spring (CHI231). This threeterm sequence presents the material of the first two years of the Mandarin Chinese program and promotes to CHI 310 in the fall. This course is designed for students with previous oral and written experience in Chinese. It is expected that students will know 600 characters by the end of this sequence. *Prerequisite: Placement test and permission of the department.*

CHI210/220/230: INTERMEDIATE CHINESE

This sequence of courses is offered fall (CHI210), winter (CHI220) and spring (CHI230). The second year of courses builds heavily upon previously learned vocabulary and grammar structures. All four language skills (speaking, listening, reading and writing) continue to bolster the students' grasp of the language, ultimately allowing them to discover ways to express themselves more fully. Supplementary readers reinforce both individual diction and reading comprehension, and serve as a model for particular Mandarin situational contexts. Upon completion of the second year, students are expected to have increased their Mandarin vocabulary to over 700 words and have mastered upwards of 600 simplified characters.

CHI310/320/400: ADVANCED CHINESE

This sequence of courses is offered fall (CHI310), winter (CHI320) and spring (CHI400). In this course stream students step beyond the basic phase of language acquisition and come to realize their autonomy in self-expression. Students use higherlevel grammar and vocabulary to engage in readings, writings and discussions on varied social and cultural topics such as education, internet use and relationships. Both text and supplementary readers provide the student with more colorful means to communicate. Additionally, authentic video clips, songs, and proverbial sayings add to the student's cultural grasp of Mandarin.

CHI311/321/411: ADVANCED CHINESE (ACCELERATED)

These courses cover the material of CHI310/320/400 in greater depth and at an accelerated pace. *Prerequisite: CHI231, placement test and permission of the department.*

CHI502/503/504: CONTEMPORARY CHINESE LANGUAGE AND LITERATURE

This sequence of courses is offered fall (CHI502), winter (CHI503) and spring (CHI504). This course is designed for the advanced student who possesses sufficient oral and writing skills to analyze and discuss literary and nonliterary texts. This sequence explores a variety of topics, including environmental issues, media, and the central dichotomy between the modern and the traditional of China. The course work helps students attain a more sophisticated level of speech and writing. Resources include film/video clips, news segments and short stories. This sequence prepares students for the Advanced Placement exam in Chinese. *Prerequisite: CHI400 or permission of the department.*

CHI521/531/541: CONTEMPORARY CHINESE LANGUAGE AND LITERATURE (ACCELERATED)

These courses cover the material of CHI502/503/504 in greater depth and at an accelerated pace. *Prerequisite: CHI400 and permission of the department.*

CHI550: CURRENT EVENTS IN THE CHINESE SPEAKING WORLD

This course explores contemporary issues concerning Chinese people. Materials may include published essays, TV programs, films, newspapers and magazine articles. In this course students will discuss and write a paper for each topic. Topics include social, economic, political and environmental issues affecting Chinese communities inside China and in the Chinese diaspora. *Prerequisite: CHI400 and permission of the department. Offered: fall term.*

CHI560: CONTEMPORARY CHINESE CINEMA

This seminar course focuses on contemporary Chinese language films. Course curriculum includes film viewing, reading of film scripts and critiques, analytical discussion, and writing on related topics such as characterization, plot, themes and societal background. Possible films include *Farewell My Concubine*(1993), *To Live* (1994) and *Shower* (1999). *Prerequisite: CHI400 and permission of the department. Offered: winter term.*

CHI570: READINGS IN POSTIMPERIAL CHINESE LITERATURE (1919PRESENT)

This advanced course focuses on selected literary works from Chinese prose and fiction (1919 to present). Possible authors may include Zhu Ziqing, Lu Xun and Yu Hua. Students will read authentic literary texts and critiques, research the historical and cultural background of each work that is studied, engage in indepth discussions, and write essays. *Prerequisite: CHI400 and permission of the department. Offered: spring term.*

CHI590: SELECTED TOPICS IN CHINESE

For advanced students of the language, this course features topics typically taught in college. The topics for this course vary from year to year and are dependent upon the interests and backgrounds of the students involved.

■ French

FRE110/120/130: ELEMENTARY FRENCH

This sequence of courses is offered fall (FRE110), winter (FRE120) and spring (FRE130). This sequence of three courses introduces students to spoken and written French. Considerable oral practice and frequent written exercises lead students to familiarity with the grammar. Reading is discussed in class, broadening vocabulary and perfecting oral ability. Texts include *Mais où est Louise*, *Virgule*, *Rémi et le mystère de SaintPéray*, *Un billet pour le commissaire* and short cultural readings.

FRE12T: TRANSITION FRENCH 1

For students who have had one or two years of French in middle school and/or one year in high school, this course rapidly reviews pronunciation and basic grammar and accelerates students in the speaking, reading and writing programs. The course normally promotes to FRE13T in winter term. *Offered: fall term.*

FRE13T: TRANSITION FRENCH 2

This course completes the review of basic structures and broadens the speaking, reading and writing programs. This course normally promotes to FRE210 in the spring term. *Offered: winter term.*

FRE210/220/230: INTERMEDIATE FRENCH

This sequence of courses is offered fall and spring (FRE210), fall and winter (FRE220), and winter and spring (FRE230). This sequence continues the study of spoken and written French begun in FRE110/120/130 or FRE12T/13T. Fundamental forms and structures are reviewed. The study of grammar is complemented by a program of modern readings and cultural exploration: Patrick Modiano & Sempé, *Catherine Certitude*; François Gravel, *Guillaume*; Goscinnny & Sempé, *Le Petit Nicolas*; Michel Ocelot, *Kirikou et la Sorcière*; Daniel Pennac, *L'oeil du loup*; and Antoine de SaintExupéry, *Le Petit Prince*.

FRE310/320: ADVANCED FRENCH

This sequence provides a systematic review of French with extensive written work, vocabulary and grammatical structures. French 310 is offered fall and spring; 320 is offered fall and winter. Students explore diverse voices and perspectives through such authors as Jean Anouilh, *Antigone*; Eugène Ionesco, *Rhinocéros*; Louis Malle, *Au revoir les enfants*; Yasmina Reza, *Le dieu du carnage*; Albert Camus, *L'étranger*; Kamel Daoud, *Meursault, contreenquête*; and EricEmmanuel Schmitt, *Monsieur Ibrahim*.

FRE400: THE COLLISION OF WORLDS IN COLONIAL AND POSTCOLONIAL FRANCOPHONE LITERATURE

This course will explore conflicting attitudes about history, politics, culture, and identity explicit and implicit in colonial and postcolonial francophone literary production. Topics may include *négritude*, *oralité*, *engagement*, *moeurs*, *désillusion*, *religion*, and *justice sociale*. The course may focus on specific geographical areas, genres and/or authors. Students will have the opportunity to enrich their cultural competence through the study of current events, documentaries, films and television. Readings may include works by Azouz Begag, Roch Carrier, Aimé Césaire, Maryse Condé, Camara Laye, Ferdinand Oyono, EricEmmanuel Schmitt. *Prerequisite: FRE320. Offered: winter and spring terms.*

Note: The following 500level courses may be taken in any order after completion of FRE400. It is recommended that students discuss 500level course selections with their current instructor.

The sequence FRE502/503/504 will focus on the themes suggested by the AP French course framework and can be taken in any order after completing FRE400 or any 500level course.

While FRE502/503/504 emphasizes in particular the topics of the AP French Language and Culture exam, the French curriculum in its entirety prepares students to control and synthesize audio/visual sources and produce spoken and written interpersonal and presentational modes of communication as defined by the current AP course framework.

FRE502: INDIVIDUALITY, COMMUNITY, SOCIETY: ASPECTS OF IDENTITY

This course explores the quest of one's identity through facets of Francophone societies. How can culture, customs, family, gender and language shape and influence identity in a progressively multicultural society? Materials may include essays, short stories, novels, radio programs, films, podcasts, newspapers and magazine articles. Readings may include works by Albert Camus, Collette Fellous, Mouloud Feraoun, JeanMarie G. Le Clézio, Michel de Montaigne, Amélie Nothomb, Voltaire. This course provides a special review for the AP French Language and Culture exam. *Offered: fall term.*

FRE503: FRANCE AND THE FRANCOPHONE WORLD IN THE 21ST CENTURY

This course explores contemporary social issues and global challenges, technological and environmental, in the Frenchspeaking world. Materials may include essays, short stories, novels, radio programs, films, podcasts, newspapers and magazine articles. Readings may include works by Andrée Chédid, Georges Pérec, JeanPaul Sartre, Michel Tournier. This course provides a special review for the AP French Language and Culture exam. *Offered: winter term.*

FRE504: ART, MUSIC AND LITERATURE

This course explores the role of artistic creation and the concept of beauty from the traditional to the modern, the role of art to challenge or praise the status quo. Materials may include essays, short stories, novels, radio programs, films, podcasts, newspapers and magazine articles. Readings may include works by Guillaume Apollinaire, Charles Baudelaire, Yasmina Reza, Arthur Rimbaud, Georges Brassens, Abd al Malik, MC Solaar. This course provides a special review for the AP French Language and Culture exam. *Offered: spring term.*

FRE550: FRANCOPHONE THEATER

This course examines a variety of plays, focusing on character interaction against the backdrop of geographical diversity, culture and voices. Possible authors might include Molière, Jean Giraudoux, Sony Labou Tansi and Aimé Césaire. *Note: This course will be offered every other year. Not offered 202020.*

FRE552: FROM FOLLY TO REASON

Giants, misers, hypochondriacs, lovesick poets, eternal optimists — these are but a few of the characters that abound in this literature course that begins with Rabelais' *Gargantua* and ends with Voltaire's *Candide*. *Note: This course will be offered every other year. Not offered 202020.*

FRE553: GREAT NOVELS

For those students who want to spend a term studying one or two great novels of the francophone world. Possible choices include Roch Carrier, *La Guerre, Yes Sir!*; Gustave Flaubert, *Madame Bovary*; Cheikh Hamidou Kane, *L'aventure ambiguë*; Guy de Maupassant, *Pierre et Jean*; Ferdinand Oyono, *Une vie de boy*; and Stendhal, *Le Rouge et le Noir*. *Note: This course will be offered every other year. Not offered 202020.*

FRE554: HUMANISM

This course studies selected works by great Francophone writers of the past and present, whose reaffirmation and defense of human dignity, or questioning of it, give them lasting significance. Readings might include works by Albert Camus, Michel de Montaigne, Molière, François Rabelais, Voltaire and JeanPaul Sartre. *Note: This course will be offered every other year. Offered fall term.*

FRE555: CHANGE MAKERS

Tracing the struggle for human rights through current events, literature and film, this course focuses on the crises, upheavals, and moral miscarriages of justice in various countries of the francophone world. *Note: This course will be offered every other year. Offered winter term.*

FRE556: STUDIES IN FRANCOPHONE CINEMA

The readings, discussions and writing in this course will center on a series of French films chosen for their cultural, historical and artistic value. Students will read scenarios, source material or summaries of the films and will discuss and write about characterization, plot, themes, and geographical and cultural aspects. This course meets during the reserve format to allow for film viewing. *Note: This course will be offered every other year. Offered spring term.*

FRE590: SELECTED TOPICS IN FRENCH

This course is offered at student or departmental initiative and may change from year to year.

■ German

GER110/120/130: ELEMENTARY GERMAN

This sequence of courses is offered fall (GER110), winter (GER120) and spring (GER130). They present the fundamental structures of German with emphasis on acquisition of the basic skills: speaking and communicating in everyday situations, listening comprehension, reading and writing. Students are introduced to the language, society and cultures of the Germanspeaking countries: Austria, Germany and Switzerland. Resources include texts, video, audio, and computerbased and internet materials.

GER111/221/231: GERMAN TWO YEARS IN ONE

This sequence of courses is offered fall (GER111), winter (GER221) and spring (GER231). This threeterm sequence presents the material of the first two years of the German program. It is recommended for students who are already familiar with grammatical systems or who have had some exposure to German. The course includes the reading program of the elementary and intermediate courses. This sequence promotes to GER310 in the fall.

GER210/220/230: INTERMEDIATE GERMAN

This sequence of courses is offered fall (GER210), winter (GER220) and spring (GER230). Language proficiency, reading, writing, vocabulary building and continued investigation of Germanspeaking societies are among aims of this sequence. Grammatical, speaking and writing exercises are coordinated with a reading program that includes literary and nonliterary texts from a variety of media — short novels, stories, news articles, music, video, etc. GER230 includes an examination of the German presence in the United States, and considers the contributions of GermanAmericans and GermanAmerican communities.

GER310/320: ADVANCED GERMAN

This sequence of courses is offered fall (GER310) and winter (GER320). This sequence provides a systematic grammar review, and continued work on speaking, reading and writing skills. Literary texts from Germanspeaking countries and material from other media provide the basis for discussion of social, cultural and ethical issues.

GER400: OTHER GERMAN VOICES

The readings in this course focus on multicultural aspects in the Germanspeaking countries and examine the writings of several recognized minority authors. There is continued development of speaking and listening skills, as well as writing exercises, which help prepare for the SAT II exam in German. *Offered: spring term.*

GER502: GERMAN BESTSELLERS
GER503: POSTHOLOCAUST WRITING
GER504: CURRENT ISSUES IN
GERMANSPEAKING COUNTRIES

This sequence of courses is offered fall (GER502), winter (GER503) and spring (GER504) and focuses on recognized masterpieces of German writing, with both classical and contemporary authors represented. Social, ethical and artistic issues are explored in each. The readings in GER502 will include contemporary and traditional bestsellers that shed light on German history, culture, thought and values. GER503 explores Germany and Austria's coming to grips with the Nazi past and the horrors committed during that era. Readings include works by Grass, Schlink, and Bernhard. GER504 examines issues presently dominating the media, literature, theater and cinema in Germany, Austria and Switzerland. Among the themes explored are immigration and integration, the fate of the European Union, the rise of the Green and far right parties, urbanization, the terrorist threat, etc. Each course includes advanced conversation and composition components. *Prerequisite: GER400.*

GER590: SELECTED TOPICS IN GERMAN

For advanced students of the language, this course features topics typically taught in college. The focus might be on one literary masterpiece, readings from German language Nobel prize winners, cinema, or other areas depending on the interests and backgrounds of the students involved.

■ Italian

ITA121/131: ACCELERATED ITALIAN FOR SENIORS

This sequence of two accelerated courses in Italian covers all the basic skills, with emphasis on a reading program leading to the study of a work of contemporary Italian literature. The course is for seniors with strong preparation in a first foreign language. *Offered: winter and spring terms.*

■ Japanese

JPN110/120/130: ELEMENTARY JAPANESE

This sequence of courses is offered fall (JPN110), winter (JPN120) and spring (JPN130). These courses introduce students to the language of everyday life. Students learn the basic skills: speaking, listening, writing, reading and cultural competency. Students learn how showing respect to others is engrained in the Japanese language. Conversation skills and grammar are practiced through fun and nurturing interactive games and activities. *Hiragana, katakana* and *kanjis* are introduced with the aid of interactive websites. Japanese culture is introduced through short stories, food, movies, songs, comic books, anime, TV shows, calligraphy, games, origami, and field trips to Boston that might include visits to the Museum of Fine Arts, the Japan Festival or the New Year Celebration at the Boston Children's Museum. Students will correspond with Japanese students

in Tokyo through video mail. Resources include an eBook textbook with embedded videos, audio, dictionary, study cards and more; iPad applications include texts, video, audio, computerbased applications and internet materials.

JPN121/131: ACCELERATED ELEMENTARY

This sequence of two accelerated terms (JPN121/131) covers the material of the first three terms of elementary Japanese (JPN110/120/130). These two courses prepare students for JPN210. Students who have satisfied their language requirement in a first foreign language and wish to begin a second language in the winter term may be particularly interested in enrolling in this class, assuming sufficient enrollment. *Offered: winter and spring terms in years when Japanese 110 is not offered due to low enrollment.*

JPN210/220/230: INTERMEDIATE JAPANESE

This sequence of courses is offered fall (JPN210), winter (JPN220) and spring (JPN230). This sequence of three courses continues the study of Japanese language and culture. Students learn about various aspects of Japanese culture through reading authentic books. The sense of "on" (the debt of gratitude), feminism, family structure and food are introduced. Topics include the origin of lucky cats, how to make sushi, Urashima Taro, etc. Students have the opportunity to participate in activities such as making sushi and corresponding with Japanese students via the internet and letters.

JPN310/320/400: ADVANCED JAPANESE

This sequence of courses is offered fall (JPN310), winter (JPN320) and spring (JPN400). In this sequence, students consolidate the previously learned material and build new vocabulary and grammar. Various cultural and social topics, such as environmental issues and gender issues, compassion for others, the beauty of hard work, power structure, issues with vanity, and selfimage are provided to deepen students' knowledge of Japan and its people through authentic material such as short stories, internet materials, video clips, movies and comic books.

JPN502/503/504: ADVANCED READINGS IN JAPANESE

This sequence of courses is offered fall (JPN502), winter (JPN503) and spring (JPN504). The main focus of these courses is to increase skills in reading, analysis and discussion, and prepare students for living and working in Japanese culture. Students will be familiar with cultural concepts such as societal duties and obligation, sexism, environmental issues, discrimination in Japan, and the concept of *harakiri*, the sense of honor. Resources include a variety of original readings, such as Japanese classical literature by Soseki Natsume and contemporary novels by Haruki Murakami, as well as newspaper articles, movies, Internet materials, video clips, and comic books. These courses prepare students for the Advanced Placement examination in Japanese and Culture. *Prerequisite: JPN400 or permission of the department.*

JPN590: SELECTED TOPICS IN JAPANESE

For advanced students of the language, this course features topics typically taught in college. The topics for this course vary from year to year and are dependent upon the interests and backgrounds of the students involved.

■ Russian

RUS110/120/130: ELEMENTARY RUSSIAN

This sequence of courses is offered fall (RUS110), winter (RUS120) and spring (RUS130). This sequence of three courses introduces students to both spoken and written Russian. The four language skills of listening, speaking, reading and writing are developed simultaneously. Students master the fundamentals of Russian grammar through frequent oral and written practice; in this sequence students converse on everyday topics; read selected short stories, fairy tales, poems and blogs; and write narratives and creative pieces. Students are introduced to the language, society and culture of Russia and of other countries where the language is widely spoken. Resources include texts, video, audio, and computerbased and internet materials.

RUS111/221/231: BASIC RUSSIAN — ACCELERATED

This sequence of courses is offered fall (RUS111), winter (RUS221) and spring (RUS231). This threeterm sequence presents the material of the first two years of the Russian program. It is recommended for students with an experience in learning languages or who have had some exposure to Russian. The course includes the reading program of the elementary and intermediate courses. This sequence promotes to RUS310 in the fall.

RUS210/220/230: INTERMEDIATE RUSSIAN

This sequence of courses is offered fall (RUS210), winter (RUS220) and spring (RUS230). This sequence of three courses continues the study of oral and written Russian. A comprehensive review of grammar is carried out and a few moresophisticated structures are introduced. Students gain further proficiency by reading and discussing selected texts from a variety of sources — short stories, essays, articles, biographies and blogs.

RUS310/320/400: ADVANCED RUSSIAN

This sequence of courses is offered fall (RUS310), winter (RUS320) and spring (RUS400). In this sequence of courses students consolidate their knowledge of grammar and continue to acquire new vocabulary by reading and discussing pieces of classical and contemporary Russian literature, historical essays, fairy tales and internet materials. They state opinions, persuade, and analyze texts both verbally and in writing.

RUS502/503/504: ADVANCED READINGS IN RUSSIAN

This sequence of courses is offered fall (RUS502), winter (RUS503) and spring (RUS504). This sequence of courses focuses primarily on classical Russian literature. Students read works by Alexander Pushkin, Mikhail Lermontov, Anton Chekhov, Fyodor Dostoevsky and Leo Tolstoy. Writing and discussion are also integral parts of this course, as students relate themes found in the classical texts to experiences and issues in contemporary society and in their own lives. Additional readings and resources come from contemporary Russian literature, newspapers, magazines, TV programs, documentaries and other internet materials, as dictated by instructor and student interest. *Prerequisite: RUS400 or permission of the department.*

RUS590: SELECTED TOPICS IN RUSSIAN

For advanced students of the language, this course features topics typically taught in college. The topics for this course vary from year to year and are dependent upon the interests and backgrounds of the students involved.

■ Spanish

SPA110/120/130: ELEMENTARY SPANISH

This sequence of courses is offered fall (SPA110), winter (SPA120) and spring (SPA130). This sequence introduces students to spoken and written Spanish. Considerable listening and speaking activities lead students to acquire proficiency of the material covered. Students begin reading short stories in the first month of instruction to broaden vocabulary and develop the skills of speaking, listening, reading and writing. Our reading selections introduce diverse cultural and geographical material and experiences in the Spanishspeaking world.

SPA12T: TRANSITION SPANISH 1

For students who have had one or two years of Spanish in middle school and/or one year in high school, this course rapidly reviews pronunciation and basic grammar and accelerates students in the speaking, reading and writing programs. Considerable listening and speaking activities lead students to acquire proficiency of the material covered. Students begin reading short stories during the first month of instruction to broaden vocabulary and develop their language skills. Our reading selections introduce diverse cultural and geographical material and experiences in the Spanishspeaking world. This course normally promotes to SPA13T 2 in the winter term. *Offered: fall term.*

SPA13T: TRANSITION SPANISH 2

A continuation of Transition 1, this course completes the review of the basic structures and broadens the speaking, reading and writing programs. Students continue reading short stories that introduce diverse cultural and geographical material and experiences in the Spanishspeaking world. This course normally promotes to SPA210 or SPA220 in the spring. *Offered: winter term.*

SPA13X: TRANSITION SPANISH 1 — ACCELERATED

SPA21X: TRANSITION SPANISH 2 — ACCELERATED

This course sequence offers an accelerated firstyear review of Spanish in two terms and typically promotes to SPA220 in the spring term, depending on the level of linguistic competence and instructor's recommendation. Considerable listening and speaking activities lead students to acquire proficiency of the material covered. Students begin reading short stories during the first month of instruction to broaden vocabulary and develop skills of speaking, listening, reading and writing. Our reading selections introduce diverse cultural and geographical material and experiences in the Spanishspeaking world. *Offered: fall and winter terms.*

SPA210/220/230: INTERMEDIATE SPANISH

This sequence continues the study of spoken and written Spanish begun in the sequence of SPA110/120/130. It completes the study of fundamental forms and structures and includes a program of readings that span a variety of cultures, regions and time of Latin America, Spain and Spanishspeaking communities of the United States. We emphasize the experience of Spanishspeaking immigrants and indigenous communities in our readings and discussions in these three courses. *Note: SPA210 is not offered winter term.*

SPA310/320: ADVANCED SPANISH

This sequence explores the more complex aspects of Spanish grammar and is based on the reading of fiction. Active vocabulary and proficiency in listening, speaking and writing are developed through frequent discussion, oral presentations and compositions. Readings include plays by Wilberto Cantón, Isabel Allende and others. We examine issues of social justice through the lenses of the Mexican Revolution and experiences of numerous communities in Latin America. *Prerequisite: SPA230.*

SPA400: PANORAMA OF LATIN AMERICAN AND SPANISH READINGS I

This course introduces advanced students to a challenging selection of readings that reveal the diversity of voices, authors and outlooks in the world's 21 Hispanic nations and in Spanishspeaking communities of the United States. Reading selections may include short stories, novels, plays, poetry, essays, nonfiction and journalistic works. This course stresses techniques in approaching literature and the continued development of vocabulary, grammar, and written and spoken expression. *Prerequisite: SPA320.*

Note: The following 500level courses may be taken in any order after completion of SPA400. It is recommended that students discuss 500level course selections with their current instructor.

The sequence SPA502/503/504 will focus on the themes suggested by the AP Spanish course framework and can be taken in any order after completing SPA400 or any 500level course.

While SPA502/503/504 emphasizes in particular the topics of the AP Spanish Language and Culture exam, the Spanish curriculum in its entirety prepares students to control and synthesize audiovisual sources and produce spoken and written interpersonal and presentational modes of communication.

SPA500: PANORAMA OF LATIN AMERICAN AND SPANISH READINGS II

This course is designed as a more indepth exploration of literature following Spanish 400. Students expand on their study of literature in the Spanish language through a selection of readings that have had a farreaching significant influence in the Spanishspeaking culture and beyond, as is the case with novels such as *Don Quijote de la Mancha* by Miguel de Cervantes, essays such as *Nuestra América* by José Martí or short stories like *El Sur* by Jorge Luis Borges, American Education Online's first Lamont Poet. This course's readings prepare students for the Advanced Placement exam in Spanish Literature and Culture. *Offered: fall term.*

SPA502: 21ST CENTURY CHALLENGES AND OPPORTUNITIES

Students increase their vocabulary, range of expression and understanding of grammatical structures, while exploring topics related to science and technology, environmental issues and other 21stcentury challenges, as they pertain to Spanish speaking countries. Materials may include essays, short stories, radio programs, films, newspapers and magazine articles. Attention is given to the development of various forms of written and verbal communication: interpretive, persuasive, interpersonal and presentational, using AP Spanish guidelines and rubrics. This course, along with SPA503 and SPA504, provides a special review for the SAT II subject test and AP Spanish Language and Culture exam in May, but need not be taken in conjunction or in sequence. *Offered: fall term.*

SPA503: FAMILY, COMMUNITY AND CONTEMPORARY LIFE

Students continue to develop all of their linguistic skills while exploring topics related to customs, values and traditions, as well as contemporary issues in Spanishspeaking cultures. Materials may include novels, essays, short stories, radio programs, films, newspapers and magazine articles. Attention is given to the development of various forms of written and verbal communication: interpretive, persuasive, interpersonal and presentational. This course, along with SPA502 and SPA504, provides a special review for the SAT II subject test and AP Spanish Language and Culture exam in May, but need not be taken in conjunction or in sequence. *Offered: winter term.*

SPA504: THE EMERGING SELF: ART AND IDENTITY

Students expand on their linguistic skills and knowledge of Spanishspeaking cultures and groups through the exploration of the arts, and topics related to the development of individual and group identities. Materials may include novels, essays, short

stories, radio programs, films, newspapers and magazine articles. Attention is given to the development of various forms of written and verbal communication: interpretive, persuasive, interpersonal and presentational. This course, along with SPA502 and SPA503, provides a special review for the SAT II subject test and AP Spanish Language and Culture exam in May, but need not be taken in conjunction or in sequence. *Offered: spring term.*

SPA550: CONTEMPORARY HISPANIC THEATER

In this course we offer a creative approach to discovering what theater is through the reading of a wide variety of original plays written by a selection of relevant authors of all times from Latin America and Spain. In addition to reading, analyzing and discussing the plays to explore cultural and linguistic elements, students may also act out several monologues and scenes on stage, and explore other aspects of theater arts while practicing their advanced Spanish skills. The course may also include writing, directing and acting in a final studentmade production. *Offered: fall term.*

SPA552: FANTASY AND REALITY IN THE LATIN AMERICAN NARRATIVE

This course explores literary works where fantasy or mythical elements merge with reality, introducing us to an unexpected or surprising world. We study pioneering works of fiction that delve into the evolution of the prose narrative in Spanish, culminating in the Latin American boom of the 20th century, considered a zenith in world literature, followed by the flourishing of magical realism in the literature of the American hemisphere. Representative works are chosen from authors such as Quiroga, Uslar Pietri, Borges, Fuentes, Cortázar, Esquivel, Allende, García Márquez and Rulfo. *Offered: winter term.*

SPA553: “SUPERNOVEL”

This course is an indepth study of a single Hispanic masterpiece and gives special attention to the historical, cultural and social context in which the work was written. Students in this class will read the novel *La fiesta del chivo* (*The Feast of the Goat*) by Peruvian Nobel laureate Mario Vargas Llosa. The novel is set in the Dominican Republic and examines the end of the dictatorial regime of Rafael Leónidas Trujillo. The plot follows three intertwined storylines in which readers can follow a Machiavellian revolution that will bring the regime’s downfall; Trujillo’s assassination; and different perspectives through the eyes of insiders, conspirators and Urania Cabral, a middleaged woman who returns to the Dominican Republic after a long absence and relives the final days of the dictatorship, revealing a longheld secret. *Offered: spring term.*

SPA556: SPANISH NONFICTION

Students continue to develop their linguistic skills while exploring nonfiction topics through a variety of sources including essays, newspapers, memoirs, documentaries, articles, podcasts, films, comics, etc. The course allows for the study of a wide variety of issues such as the historical, political and cultural landscape of Latin America and Spain, from colonial times to current events. Topics encountered in previous courses, such as independence movements, the struggle for democracy and social justice, the dynamics of socioeconomic class, religion, globalization, changing family and gender dynamics and immigration may be explored in this course. *Offered: spring term.*

SPA557: HISPANIC CINEMA

The readings, discussions and writing in this course will center on a series of Hispanic films chosen for their cultural, historical and artistic value. Students will read scenarios, source material or summaries of the films and will discuss and write about characterization, plot, themes, and geographical and cultural aspects. This course meets during the reserve format to allow for film viewing. *Offered: spring term.*

SPA558: SPANISH THROUGH DIGITAL MEDIA

This course is designed to emphasize the continued development of listening and speaking proficiencies in Spanish by viewing and discussing podcasts, videotalks, documentaries and short films, among other possibilities, available online and in other media. As part of their daily tasks, students will watch audiovisual materials in Spanish that will cover a wide range of topics and speakers in different areas of the Hispanic world. Our study will provide an informative window for current events and cultural trends and the variety of speaking accents, lexicons and idiomatic traits of Latin American, Equatorial Guinea and Spain. *Offered: winter term.*

SPA590: SELECTED TOPICS IN SPANISH

This course is offered at student or departmental initiative and may change from year to year. In 2020/2021 the following course will be offered:

SPA590: THE TELENUELA

This course is designed to emphasize the practice of oral and aural Spanish by watching and discussing Spanish speaking “telenueelas” and/or TV series in Spanish. Students will need to get a subscription for a term to a video platform where they will have access to the course content. As part of their daily task, students will be assigned to watch episodes of a “telenueela” with closed captions in Spanish that will be discussed during class time. *Prerequisite: SPA400. Offered: spring term.*

Music

Music engages our highest faculties of listening, reasoning, imagining and feeling. The study of music is a fundamental part of a wellrounded education. An essential way to explore our common humanity, music simultaneously cultivates selfdiscovery and empathy. An experience rich in musical challenge and reward teaches lessons that extend beyond the classroom, studio or concert hall.

The department seeks both to instruct students in music and to enrich the life of the school through performance and community engagement, giving voice to a common spirit in times of occasion; a powerful expression of *non sibi*.

For students of any level of experience or area of musical interest, there is an appropriate point of entry to the curriculum. Our program is realized through three areas of study: performing ensembles, private lessons and the academic classroom. In ensembles, students learn the art of collaborative musicmaking and listening. Students taking private lessons explore technique, interpretation and selfexpression. In the classroom, students study the theoretical, historic and cultural contexts that awaken interest in, and understanding of, the musical language. The fullest educational experience combines study in all three areas to develop musically literate students who will be engaged in music throughout their lives.

■ Music Theory

MUS200: BECOMING MUSICAL

This course is recommended for students with an interest in understanding music but who have little or no prior experience. This course examines the elements that are universal in music and develops the practical skills needed to become functioning musicians. Rhythm, pitch, scales, keys, intervals, and triads are the basic material of the course. By studying a variety of both popular and classical styles, students will discover how composers employ the elements of music to create varied moods and expression. The practical skills of ear training, sightsinging, and dictation as well as the notation of music are integrated into the course. The department encourages students to take private lessons (MUS010) along with this course. *Provides one term of credit toward the studio/performance arts requirement. Open to all students. Offered fall and spring terms.*

MUS201: INTRODUCTION TO MUSIC THEORY (ACCELERATED)

This course covers the material in MUS200 at an advanced pace and in greater depth. Explorations into harmony and voice leading may be included. MUS201 is intended for students with previous instrumental/vocal experience who are comfortable reading

music and have a basic working knowledge of keys and scales. The department recommends that MUS201 be taken in conjunction with the private study of an instrument or voice (MUS010). *Provides one term of credit toward the studio/performance arts requirement. Open to all students. Offered fall and spring terms.*

MUS204: INTRODUCTION TO MUSIC TECHNOLOGY

We live in a world of music that is increasingly created with digital media. Musical materials drawn from conventional, nonconventional, popular, experimental, film and commercial sources are combined and transformed through computer technology. This introductory course focuses on creative projects using the software programs Logic Pro and Ableton Live. Students will learn to mix, edit and master projects using recorded, sampled and computergenerated sounds. Intermediate musicianship skills are required. *Prerequisite: MUS200, MUS201 or permission of the department. Provides one term of credit toward the studio/performance arts requirement. Offered: spring term.*

MUS410: THE TECHNIQUES OF COMPOSITION AND ANALYSIS

Students in this course continue their study of the language of music by creating short compositions, which are performed in class. They learn to use the elements of music in melody writing, text setting and harmonization and also explore the fundamentals of consonance and dissonance in two, three and fourpart writing. Finally, the interaction of harmony and counterpoint is examined. Analysis of selected works by master composers supplements and informs the students' own creative work. In addition, students continue to develop their aural comprehension, sightsinging and keyboard skills. *Provides one term of credit toward the studio/performance arts requirement. Prerequisite: MUS200, MUS201 or permission of the instructor. Offered: winter term.*

MUS420: THE COMPOSITIONAL PROCESS

This course continues the emphasis on original composition begun in Music 410. Increasingly complex and sophisticated works are attempted. Through the analysis of selected works, students will find guidance and inspiration for their own compositional efforts. Topics covered are the interrelationship of harmony and counterpoint, instrumental and keyboard textures, figured bass, variation forms, modulation, and binary form. *Provides one term of credit toward the studio/performance arts requirement. Prerequisite: MUS410 or permission of the instructor. Offered: spring term.*

■ Music History and Appreciation

See “Endnotes” for important information regarding diploma credit, registration, auditions, repeating courses and the “Music Option.”

MUS202: POPULAR MUSIC IN AMERICA

What is American popular music? How does the rich variety of American popular music styles reflect trends in American society and the major events of American history? Through a series of readings and recordings, students will trace the history of popular music in America across three extended time spans: 1840-1920 (beginning roughly with Stephen Foster and the advent of minstrelsy through ragtime and early blues forms); 1910-1950 (to include New Orleans jazz, syncopated song and dance music, big band, swing and bop, and Chicago jazz); 1950-1980 (including cool jazz, rock and roll, rhythm and blues, British rock, rock, soul, Latin music, and contemporary jazz). Emphasis will be placed on developing understanding and perception of the musical elements of instrumentation, rhythm, melody, harmony, dynamics, texture and form through study of classic recordings from a wide spectrum of popular artists. *Open to all students. Earns one credit toward the completion of the arts requirement. Offered: spring term.*

MUS203: LISTENING TO MUSIC

This introductory course is intended for students who want to expand their knowledge of music and become informed listeners. No prior musical training is required. Students will learn to perceive the elements of music — rhythm, melody, harmony, texture, timbre and form and acquire a musical vocabulary to describe what they hear. This course will explore music across boundaries of culture, style and time — classical and popular, Western and non-Western, traditional and experimental, folk and jazz, and consider the influence of technology on the art of music. Course work will include listening assignments, reading, reflections and attendance at concerts. *Open to all students. Earns one credit toward the completion of the arts requirement. Offered: winter term.*

■ Performance

See “Endnotes” for important information regarding diploma credit, registration, auditions, repeating courses and the “Music Option.”

MUS400: ADVANCED INSTRUMENTAL/VOCAL STUDY I

This is a performance course for qualified students who wish to devote one term to intensive study of their instrument or voice. With the guidance of their instructor, students work on technique and interpretation with the goal of developing their own musical voices. Students participate in twice-weekly performance classes where emphasis is placed on developing effective practice techniques and understanding the musical language of the music they are studying. Students are required to perform at in-house recitals and student concerts. Students taking MUS400 must take weekly private lessons as part of this course. In special circumstances, permission may be granted by the department chair for students to study with

teachers who are not on the Online School’s faculty. *Provides one credit toward the studio/performance arts requirement. Offered: spring term. Open to uppers and seniors. Requires permission of the department. An application must be submitted to the department chair with a recommendation by the private instructor. One private lesson and two studio classes per week.*

MUS500: ADVANCED INSTRUMENTAL/VOCAL STUDY II: RECITAL

This intensive performance course is for the most advanced instrumentalists and vocalists and culminates in a public recital. In twice-weekly classes students have the opportunity to perform for each other, receive constructive feedback, and address common questions and strategies relating to public performance. Students in MUS500 must take private lessons as part of this course. In special circumstances, the department chair may grant permission for a student to study with a private teacher who is not on the Online School’s faculty.

An application must be submitted to the department chair, along with a recommendation by the private instructor. A proposed program (with timings) must be included as part of the application. Applications are available in the winter trimester, and final approval of the MUS500 program is given by the Music Department. Decisions will be based on the following criteria:

- › A MUS500 recital should have approximately 30 minutes of music. In some instances, students may receive permission to perform a recital of greater length not to exceed 50 minutes of music.
- › Programs should include repertoire from a range of musical styles and a variety of historical periods and composers.
- › Programs should balance the technical demands of the music and the student’s technical ability.
- › Concertos are discouraged.

Provides one credit toward the studio/performance arts requirement. This course may be repeated for credit. Open to uppers and seniors. Offered: spring term. Prerequisite: Requires permission of the Music Department and successful previous performing experience at in-house and student concerts. One private lesson and two studio classes per week.

PEC110: ADVANCED MUSIC PRACTICE

Advanced Music Practice gives conscientious and dedicated musicians time within the context of American Education Online’s academic program to devote to practicing. Students are accepted by permission of the Music Department chair. Students meet at a common time in the afternoon. Most of the time is devoted to private practice under the supervision of the music faculty. Part of each day is reserved for a variety of physical activities, including cardiovascular exercise, core and flexibility training, and exercises to avoid repetitive stress injuries.

Students participating in *Advanced Music Practice* must be taking regular private lessons. Each student is required to consult with his

or her private lesson teacher to develop a plan for using the practice time effectively. All students will participate in an endofterm jury to demonstrate the progress they have made over the course of the term. *Advanced Music Practice* does not carry academic credit but meets the Physical Education requirement for the term. *Advanced Music Practice* is limited to 13 students each term. This program is not open to juniors in the fall term.

■ Private Lessons

See “Endnotes” for important information regarding diploma credit, registration, auditions, repeating courses and the “Music Option.”

MUS010: PRIVATE LESSONS

Private music lessons offer students an individualized learning experience with a private instructor. In the lessons, students develop technique and expression, while they explore the repertoire for their instrument. Students receive one 50minute lesson per week and are expected to practice a minimum of two hours per week. Students are required to attend at least one concert on campus each term. *Provides 1/3 credit per term toward the studio/performance arts requirement; credit is granted upon completion of three consecutive terms of study of the same or closely related instruments. Private lessons may also be taken for audit, i.e., noncredit. Halfperiod lessons provide no academic credit.*

Note on PrivateLesson Fees

Private lessons are billed **in addition** to tuition. Students on financial aid receive partial scholarship for private lesson fees for one set of lessons. Students normally receive 10 lessons per term. At least 8 lessons are required to pass this course.

LESSONS IN THE FOLLOWING INSTRUMENTS ARE OFFERED:

Bagpipes	Harp (Classical, Irish)
Banjo	Mandolin
Bassoon	Oboe
Cello	Organ
Clarinet	Percussion
Composition	Piano(Classical, Jazz)
Djembe	Saxophone(Classical, Jazz)
Double Bass(Classical, Jazz)	Sitar
Drum Set	Tabla
Electric Bass	Trombone
Euphonium	Trumpet
Fiddle	Tuba
Flute (Classical, Wooden Celtic)	Ukulele
French Horn	Viola
Guitar (Classical, Folk, Rock)	Violin
Harmonica	Voice

■ Ensembles

See “Endnotes” for important information regarding diploma credit, registration, auditions, repeating courses and the “Music Option.”

MUS011: AFRICAN DRUMMING

In group classes, students learn basic playing techniques of the handdrumming traditions of West Africa, the Caribbean and Brazil. They develop their rhythmic skills and sense of ensemble, and experience the special energy and excitement of ensemble drumming. The African Drumming Ensemble performs each term and often collaborates with various choruses and the Dance Department. *Provides 1/3 credit per term toward the studio/ performance arts requirement; credit is granted upon completion of three consecutive terms of study. Students taking the course for credit are required to attend one concert on campus each term. Also offered for no credit. One evening session per week plus individual practice.*

MUS060: INSTRUMENTAL CHAMBER MUSIC

Students are placed in trios, quartets, quintets and other small ensembles to experience the special giveandtake of playing chamber music. *Instrumental combinations include strings, winds, brass, piano, percussion and harp. While working on refining stylistic awareness, students also develop the musical and interpersonal skills needed for effective rehearsal and communicative performance. Chamber music ensembles perform at the end of each term on the Concert Series. Every effort is made to place students in compatible groups; however, placement in a group is not guaranteed. Provides 1/3 credit per term toward the studio/performance arts requirement; credit is granted upon completion of three consecutive terms of study. Also offered for no credit. Placement audition required.*

MUS070: VOCAL CHAMBER MUSIC

Students are placed in small ensembles to sing a variety of historical and contemporary vocal styles and literature. Students learn the tenets of singing in a small ensemble and work on vocal production, diction, intonation and performance practice. Vocal Chamber groups perform at the conclusion of each term on the concert series. *Provides 1/3 credit per term toward the studio/performance arts requirement; credit is granted upon completion of three consecutive terms of study. Also offered for no credit. Placement audition required.*

Ensembles offered each term:

- Gli Scalatori (Italian madrigals)
- New Music Ensemble
- Roaring Lions (tenor/bass choir)
- Sopraltos (soprano/alto choir)
- American Education Online Spirituals Ensemble
- Renaissance Schola
- Vocal Jazz

*other groups form each term as enrollment and interest dictate

MUS075: AMERICAN EDUCATION ONLINE CHORAL UNION

Faculty and community members in this mixedvoice choral ensemble perform major works of choral literature, often collaborating with the Concert Choir, Chamber Orchestra, and soloists. Through twiceweekly rehearsals, students develop their vocalism, musicianship and choral skills. The Choral Union performs regularly on the Concert Series and at special events, including Parents' Weekend and the annual Holiday Concert. *Provides 1/3 credit per term toward the studio/performance arts requirement; credit is granted upon completion of three consecutive terms of study. Also offered for no credit. Two evening rehearsals per week. No audition required.*

MUS077: CONCERT CHOIR

Concert Choir, American Education Online's premiere choral ensemble, offers a rigorous choral experience to those students accepted by competitive audition. The choir performs a wide variety of choral literature representing many traditions and style periods. Through intensive rehearsals and public performance, students develop their vocalism, musicianship and choral skills. The Concert Choir performs at the conclusion of each term as well as at a variety of campus events and a biennial concert tour. *Provides 1/3 credit per term toward the studio/performance arts requirement; arts requirement is granted upon completion of three consecutive terms of study. Meets three class periods per week. Audition required.*

MUS083: AMERICAN EDUCATION ONLINE SYMPHONIA

The Symphonia provides a foundational orchestral experience for students at the intermediate to advanced intermediate level. The basic techniques of orchestral playing, musicianship and ensemble skills are studied through both full and sectional rehearsals. *The Symphonia performs regularly throughout the school year. Provides 1/3 credit per term toward the studio/performance arts requirement; credit is granted upon completion of three consecutive terms of study. Also offered for no credit. Two evening rehearsals per week. Placement audition required.*

MUS085: SYMPHONY ORCHESTRA

A full-sized Symphony Orchestra of advanced instrumentalists rehearses and performs works from the major symphonic repertoire. All aspects of orchestral technique are studied through both full and sectional rehearsals. The Symphony Orchestra performs regular concerts throughout the school year. *Provides 1/3 credit per term toward the studio/performance arts requirement; credit is granted upon completion of three consecutive terms of study. Also offered for no credit. Two evening rehearsals per week. Placement audition required.*

MUS087: CHAMBER ORCHESTRA

The Chamber Orchestra offers an intensive ensemble experience for advanced string and woodwind players. The skills, craft and discipline of orchestral playing are developed in depth through

the study of repertoire for small orchestra: Baroque concerti grossi, classical symphonies, Romantic character pieces and the rich chamber orchestra repertoire of the 20th century. The Chamber Orchestra performs regularly throughout the year, often collaborating with the American Education Online Choral Union and Concert Choir, and on regular domestic and international tours. All members of the Chamber Orchestra also play in the Symphony Orchestra or participate in another large ensemble. *Provides 2/3 credit per term toward the studio/performance arts requirement. One arts requirement credit is granted upon completion of two consecutive terms of study and two arts requirement credits are granted upon completion of three consecutive terms of study. Three class periods plus two evening rehearsals per week. Audition required.*

MUS093: CONCERT BAND

This course provides an opportunity for all wind, brass and percussion players to perform works from the symphonic wind literature. Through rehearsals and performances, students improve their technical skills, sightreading abilities and musical sensitivity. The Concert Band studies original compositions, transcriptions and arrangements of both classical and popular music. The ensemble performs four to six times during the school year. *Provides 1/3 credit per term toward the studio/performance arts requirement; credit is granted upon completion of three consecutive terms of study. Also offered for no credit. Two evening rehearsals per week plus individual practice. Open to all students with basic musical proficiency.*

MUS095: JAZZ COMBO

Jazz Combo gives intermediate and advanced intermediate jazz musicians the opportunity to develop their ensemble and improvisational skills through the study of traditional and contemporary jazz repertoire. Emphasis will be placed on rhythmic accuracy and technical skills such as articulation, tone and dynamic control, as well as on developing facility with the jazz language. The Jazz Combo performs regularly throughout the school year and is open to students with basic musical proficiency. *Provides 1/3 credit per term toward the studio/performance arts requirement; credit is granted upon completion of three consecutive terms of study. Also offered for no credit. One evening rehearsal per week. Placement audition required.*

MUS097: PEA JAZZ ENSEMBLE

Students in this course perform traditional and contemporary jazz repertoire. Through rehearsal and performance, students learn to perform and improvise in the style of the jazz greats. The Jazz Ensemble gives several public performances during the year. *Provides 1/3 credit per term toward the studio/performance arts requirement; credit is granted upon completion of three consecutive terms of study. Also offered for no credit. Two evening rehearsals per week. Placement audition required.*

■ Selected Topics in Music

MUS590: SELECTED TOPICS IN MUSIC

For advanced students in music, this course features topics that are beyond the scope of our regular course offerings. The course will run when a specific topic is identified by faculty and there is a sufficient number of students with the necessary prerequisites (and as staffing allows). Topics could fall within the areas of electronic music composition or production; ensemble leadership and conducting; performance and practice technique; specific genres of music literature study; or interdisciplinary studies in music.

ENDNOTES:

Diploma Credit for Partial Credit Courses

Three consecutive terms of the same 1/3 credit course equals a full credit and may be applied toward the performing/studio arts requirement. These consecutive terms may be interrupted by participation in an offcampus program.

Registration for Performance Courses

Students who register for MUS400 or MUS500 must also register for fullperiod private lessons: MUS010 – “Audit.” The private lessons taken as part of MUS400 or MUS500 are part

of the course and do not provide any additional partial credit. Permission for students to substitute offcampus lessons for MUS010 as part of MUS400 or MUS500 will be given by the department on a casebycase basis.

Repeating Courses

MUS400, MUS500, Private Lessons and Ensemble courses may be repeated.

The Music Option

Any student taking the same 1/3 credit music course for three consecutive terms may take a onecourse reduction in load during the third term. Students in MUS087 (Chamber Orchestra) may take a onecourse reduction during the second consecutive term.

This reduction, known as the Music Option, should be indicated by the code MUS001 in place of a fifth course for the term at the time of registration.

Instrumental Auditions

All instrumentalists, including pianists, must take a placement audition for Symphony Orchestra, Symphonia, Chamber Orchestra, Concert Band, Chamber Music, Jazz Combo and Jazz Ensemble at the beginning of the fall term.

Physical Education

American Education Online supports a comprehensive physical education program for all students. The program is designed to promote health and fitness by teaching skills in diverse physical activities and educate students in cooperative effort, fair play and the ability to handle stress.

Physical education at American Education Online includes competitive as well as instructional activities, some of which are coeducational. The program is supervised by the chair of the Physical Education Department and the Director of Athletics. The Physical Education Department and many faculty colleagues teach and coach in the program at a variety of levels.

The Love Gymnasium athletic complex includes two indoor skating rinks, four basketball/volleyball courts, the Fisher Family Squash Center, the Roger A. Nekton Championship Pool, the Downer Family Fitness Center and a fully staffed athletic training center. In addition, the William Boyce Thompson Field House offers a 200meter track, four tennis courts and two batting cages and is also the home of the wrestling program. Outdoor facilities include 14 allweather tennis courts, the Plimpton Playing Fields, the Amos Alonzo Stagg baseball diamond and softball field, the Ralph Lovshin allweather track and the Hilliard lacrosse field. Phelps

Stadium and Hatch Field, home to the football, field hockey and lacrosse programs, include two modern turf fields with lights. The William G. Saltonstall Boathouse is located at the opposite end of campus along the Squamscott River.

Students are required to participate in the physical education program four days per week. Those students participating on an interscholastic team typically have a sixdayaweek commitment, with contests on Wednesday and Saturday afternoons. To the best of our ability, we rearrange academic schedules to allow participation in interscholastic sports; however, we do not rearrange academic schedules to allow participation in physical education classes.

Ninthgrade students have the opportunity to try out for a varsity or junior varsity team. Ninthgrade students who do not participate in the interscholastic athletic program are placed in the junior physical education program. All students take a swim test and nonswimmers are given the opportunity for instruction throughout the year.

Lower, uppers and seniors may petition the Physical Education Department to earn diploma credit for an activity off campus, as long as that activity is not offered on campus at some point during the school year. **Petitions must be submitted 10 days**

prior to the end of the term to be considered for the following term. Normally, only one term per year is allowed. However, please note that students engaged in a club sport, the prep program or an interscholastic sport at PEA cannot request free formats to participate concurrently in additional training or sports programs off campus.

PEC111: JUNIOR PHYSICAL EDUCATION PROGRAM

Junior Physical Education, sometimes referred to as the “Prep Program,” is a specifically designed physical education offering that is required of all juniors (ninth graders). It meets four days per week each of the three terms of the school year. Exceptions to this requirement exist for ninth graders who make varsity or junior varsity interscholastic sports, earn a place in a dance class, or are selected for a part in the main stage drama production. When signing up for courses in April, all entering ninth graders must sign up for the Junior Physical Education Program.

The goal of the Junior Physical Education Program is to provide a supportive learning environment for our four-year students through the structure of physical education and sport. Each of the three terms is organized slightly differently. All three terms incorporate group fitness activities, team building, socialization and fun, with the intent that each student will accomplish a comfortable transition to the American Education Online community while having the opportunity to build strong bonds with instructors and classmates alike.

The fall term allows students to choose three activities from an extensive list usually including such sports as: crew, volleyball, crosscountry running, cycling, field hockey, tennis, weight lifting, water polo, flag football, soccer and fencing. The winter is presented as a sampling of sports including skating, squash, swimming and diving, track and field, wrestling, basketball, and fitness. The final term, spring, allows the ninth grader to transition to American Education Online’s custom of choosing one sport for the bulk of the spring. Tennis, diamond sports, lacrosse, track and field, cycling, crew, badminton, street games and lifetime sports, as well as ultimate Frisbee are some of the choices.

■ Fall Interscholastic Programs

PEB110: BOYS V/JV CROSS COUNTRY PEG110: GIRLS V/JV CROSS COUNTRY

Training runs develop the stamina and speed necessary to race the 5K distance. Beginners are welcome to join the team; the workload is adjusted to suit each runner’s ability. Competition against traditional rivals culminates in the New England championship meet. Individuals may also compete in a wider context, as in the Foot Locker and Junior Olympic regional championships.

PEG120: GIRLS VARSITY FIELD HOCKEY PEG125: GIRLS JV FIELD HOCKEY

The varsity and junior varsity teams are committed to a strong competitive program based on strength and conditioning,

fundamentals of stickwork, appropriate system play, teamwork and responsible student leadership. A full schedule of 15 to 20 games offers opportunity to excel at a very high level.

PEM130: VARSITY FOOTBALL PEM135: JV FOOTBALL

The varsity squad plays a ninegame schedule in the Class A league, ending with the traditional Andover game. The JV squad plays five games against other private and local public schools.

PEG140: GIRLS VARSITY VOLLEYBALL PEG145: GIRLS JV VOLLEYBALL

The team plays a competitive schedule against other private and public schools in New England. Practices are designed to improve team play and individual skills and consist of highlevel drills.

PEB160: BOYS VARSITY SOCCER PEB165: BOYS JV SOCCER

The boys varsity and junior varsity teams play a 16 to 18game schedule. The practices are designed to improve endurance, sharpen individual skills and inculcate team tactics.

PEG160: GIRLS VARSITY SOCCER PEG165: GIRLS JV SOCCER

Girls soccer at American Education Online focuses on reaching individual potential within a team concept. The varsity plays a very competitive schedule against other independent schools. The junior varsity plays a strong schedule in both number and opponents. For both levels, the season culminates with the deeply traditional Andover contest. For the varsity, this is followed by participation in the New England Large School Invitational Championship.

PEB180: BOYS VARSITY WATER POLO PEB185: BOYS JV WATER POLO

The varsity team has a schedule of approximately 18 games that ends with the New England Championships. The JV team has approximately 10 games. Each squad has 16 members. Prior experience in water polo or competitive swimming is not necessary.

PECMGR: V/JV TEAM MANAGER

Managers are volunteers who, through communication with the team’s coach, will perform duties that may include care of equipment, filming, timing and scoring at games, and other duties as assigned by the coach. This is a sixdayaweek commitment and travel for away contests may be required. A minimum exercise program, occurring on practice days and set up by the coach, is required. This offering is open to lowers, uppers and seniors. A student may manage more than two terms in a given year only with department permission.

■ Fall Physical Education Programs

PEC100: INTRODUCTION TO FITNESS

This fitness program introduces participants to our fitness facility and the fundamental principles of cardiovascular and resistance training. Instruction is given regarding the basic mechanics of movement, physiology of exercise, the role of stretching and the use of heart rate/target zones for training. Daily activities are based on individual student goals emphasizing the development of lifelong fitness habits.

Note: Students may enroll in PEC100 for only one term.

PEC200: INTERMEDIATE FITNESS

The intermediate fitness program is designed for students who have already taken PEC100 (*Introduction to Fitness*). Topics covered in PEC100 will be reinforced and students will be introduced to more advanced principles of cardiovascular, flexibility and resistance training. Daily activities may include cardiovascular and strength training with the continued emphasis on lifelong fitness habits.

Prerequisite: PEC100 or the permission of the department.

PEC300: CHALLENGE FITNESS

Challenge Fitness is designed for students looking for an intense, group fitness experience. Students will be introduced to a variety of rigorous cardiovascular, flexibility and resistance training methods. The instructor will direct the class through a series of programs that will include dynamic stretching, agility exercises, interval training and circuit training, as well as functional movement and functional stability exercises. Students should expect to improve their overall fitness levels within a highly motivated group setting.

Note: The instructor reserves the right to find alternative placement for those students who do not possess adequate baseline fitness levels.

PEC104: YOGA AS MEDITATION PEC106: VINYASA YOGA

Yoga at American Education Online is taught in several ways, and choosing one is a matter of preference. Yoga is an individual practice and all students are welcome regardless of previous experience. In both types of yoga, joints, muscles and internal organs benefit from movements that stimulate often neglected areas of the body. You can expect to improve overall mobility, strength and balance and will probably enjoy stress reduction and a greater sense of wellbeing, too.

Yoga as Meditation, a style sometimes referred to as “gentle yoga,” focuses on learning and holding classic asanas (poses), working with the breath (*pranayama*) and practicing meditation skills in a calm and peaceful environment, allowing the mind and body to quiet. Vinyasa Yoga is for the student who is seeking the same overall benefits as listed above but through a more active sequence of movements.

PEC105: CLUB MOUNTAIN BIKING

Mountain biking is conducted in our outdoor classroom. Students will cover topics on riding technique, equipment, maintenance and safety. Riders will explore the trails of Fort Rock, Stratham Hill Park and Bear Brook State Park. Mountain bikes provided by the Online School are equipped with front shocks and disc brakes to handle technical terrain. Clipless pedals and shoes are encouraged. Students have the opportunity to compete in a local mountain bike race during the course. The class meets four days a week with rides lasting 60 to 90 minutes. Bikes and helmets are provided by the department.

PEC107: CLUB RUNNING

The club running program is designed for students who want to run for fitness. Beginning runners will receive thorough introduction to distance running. Experienced runners will further develop their speed and stamina. Daily runs of 2 to 5 miles will compose the bulk of the training, but alternate modes of training and drills that are essential to strong, injury-free running will also be part of the course.

PEC109: THEATER MAINSTAGE PERFORMANCE

See Theater and Dance offerings.

PEC110: ADVANCED MUSIC PRACTICE

See Music offerings.

PEC112: THEATER AND DANCE TECH CREW

See Theater and Dance offerings.

PEC140: CLUB VOLLEYBALL

This course is for beginning and intermediate players looking to improve their skills in volleyball. This section is open to students who have not participated in the varsity or junior varsity programs. Class will consist of drills and games.

PEC150: OUTDOOR CHALLENGE

Outdoor Challenge (ODC) is a group-oriented, teambuilding program for those who want to be active in the outdoors. Possible activities may include, but are not limited to, hiking, canoeing, cycling, high and lowropes challenges, obstacle activities, outdoor survival education, camping skills and orienteering. This class will be taught on campus, as well as off campus at Camp Lincoln. PEC150 may be taken only once. Participants must have a cycling helmet and access to a bicycle.

PEC160: CLUB SOCCER

Club soccer offers a combination of instruction and intramural games with an emphasis on competitive play, and works toward skill development and team strategies.

PEC171: CLUB TENNIS

Club tennis is designed for both beginning players and those who desire one-on-one competitive match play. Players are evaluated at the beginning of the term and sectioned into smaller groups based on ability and experience. This section is open to students who have not participated in the varsity or junior varsity programs. Players compete in singles and doubles through round-robin and/or team play. Club coaches also conduct team practices in singles and doubles and/or club team matches. Free-hit days are also scheduled into the section. Spring club tennis sections may also play matches against the prep program competitive tennis section. Proper tennis shoes and racquet are required.

PEC203: STUDIO FITNESS

This course is based on Pilates mat exercises that will improve not only total body and core strength but also postural alignment, flexibility, balance, coordination and endurance. Weight-bearing exercise and a cardiovascular component are included in addition to the mat work to produce a complete fitness workout. This course can be an excellent fitness workout in itself or as a supplement to other fitness/athletic endeavors. Modifications to all exercises are taught in order to accommodate all fitness levels and to facilitate improvement.

PEC260: CLUB SQUASH

The club squash program is designed to teach students basic strokes and tactics, leading up to class competition and ladder play. *Required: racquet, one ball, eye protection glasses and nonmarking shoes.*

PEC304: AMERICAN RED CROSS LIFEGUARDING

The purpose of the American Red Cross Lifeguarding course is to provide entry-level participants with the knowledge and skills to prevent, recognize and respond to aquatic emergencies and to provide care for breathing and cardiac emergencies and sudden illnesses until emergency medical services (EMS) personnel arrive and take over. To successfully complete this course and be granted the two American Red Cross Certifications in Lifeguarding/First Aid and CPR/AED for the Professional Rescuer (valid for two years), you must attend all class periods; participate in all skills sessions/drills, activities and scenarios; demonstrate competency in all required skills and scenarios; and pass the final written exam with a minimum grade of 80 percent.

PEC330: GIRLS CREW (ADVANCED) PEC331: BOYS CREW (ADVANCED)

Experienced rowers and coxswains place emphasis on improving individual technique and aerobic conditioning at low cadences in fours and eights. All look forward to occasional intramural 3-mile races and our annual 500-meter Class Day Regatta. Practices occur, on average, four days per week, including some Wednesdays. *Students must pass the crew-specific swim test in order to participate.*

PEC330: GIRLS CREW (NOVICE) PEC331: BOYS CREW (NOVICE)

Beginners are introduced to rowing and coxing in eight-oared shells after a review of boatmanship and water safety. By midseason, all are ready to participate in intramural races. Novices who progress rapidly can become candidates for the varsity crews in the spring. Practices occur, on average, four days per week, including some Wednesdays. *Students must pass the crew-specific swim test in order to participate.*

DANCE

See Theater and Dance offerings.

■ Winter Interscholastic Programs

PEB210: BOYS VARSITY BASKETBALL PEB215: BOYS JV BASKETBALL PEG210: GIRLS VARSITY BASKETBALL PEG215: GIRLS JV BASKETBALL

The varsity teams play once or twice weekly against college JV teams and other independent schools. The JV teams play separate schedules, competing with high schools and other prep schools. Practices on both levels stress the strengthening and polishing of basic skills, learning offenses and defenses, and sharpening reactions to tactical situations.

PEB250: BOYS VARSITY HOCKEY PEB255: BOYS JV HOCKEY

The boys varsity ice hockey program offers experienced players a competitive schedule against other independent schools. The JV team also plays a competitive schedule against other independent schools.

PEG250: GIRLS VARSITY HOCKEY PEG255: GIRLS JV HOCKEY

The girls varsity ice hockey program offers experienced players a competitive schedule against other independent schools. The JV team also plays a competitive schedule against other independent schools.

PEB260: BOYS V/JV SQUASH PEG260: GIRLS V/JV SQUASH

Squash is a sport that emphasizes racquet control, speed and strategy. Varsity squash players typically begin squash at the Online School and spend a year on the JV learning the game. There are regular challenge matches that allow players to move up the ladder, and a full schedule of interscholastic matches.

PEB270: BOYS VARSITY SWIMMING
PEB272: BOYS V/JV DIVING
PEB275: BOYS JV SWIMMING

The boys varsity and JV teams have eight to 10 dual meets each during the winter. The varsity ends its season with the New England Prep Championships. Stroke technique work and weight training are emphasized. Divers with or without competitive experience are encouraged to try out.

PEG270: GIRLS VARSITY SWIMMING
PEG272: GIRLS V/JV DIVING
PEG275: GIRLS JV SWIMMING

The girls varsity and JV swimming and diving programs typically will schedule eight dual meets throughout the season, culminating with the New England Prep Championships. A variety of competition is scheduled. Emphasis is placed on helping each swimmer or diver realize her potential, concentrating on proper technique and strength training with a solid team training concept. Swimmers and divers without competitive experience are always encouraged to try out.

PEB280: BOYS V/JV TRACK
PEG280: GIRLS V/JV TRACK

More than a 10th of the school traditionally participates on the track team. Athletes find themselves at various levels of development, so the training and competition schedule is adapted to fit the individual. The most accomplished athletes find themselves participating in such prestigious meets as the Dartmouth Relays, the Eastern States Championship and the National Scholastic Championship. Others get their competition from meets with public high schools. All athletes receive individual attention from experienced and enthusiastic coaches.

PEM290: V/JV WRESTLING

The varsity wrestling team consists of the top wrestlers in each of the 13 weight classes, from 103 pounds to heavyweight. Team members challenge up the ladder. The varsity schedule consists of dual meets, the Class A Tournament, the All New England Tournament, and, for those who qualify, the National Prep School Tournament.

JV wrestling is an extension of the varsity. Wrestlers move up and down the ladder in their individual weight classes, and four times a season challenge for the varsity. The team practices with the varsity but has its own schedule of meets, including contests with some other schools' varsities and the New England JV Tournament.

PECMGR: V/JV TEAM MANAGER

See fall program description.

■ Winter Physical Education Programs

PEC100: INTRODUCTION TO FITNESS

See fall program description.

PEC104: YOGA AS MEDITATION

See fall program description.

PEC106: VINYASA YOGA

See fall program description.

PEC109: THEATER MAINSTAGE PRODUCTION

See Theater and Dance offerings.

PEC110: ADVANCED MUSIC PRACTICE

See Music offerings.

PEC112: THEATER AND DANCE CREW

See Theater and Dance offerings.

PEC200: INTERMEDIATE FITNESS

See fall program description.

PEC203: STUDIO FITNESS

See fall program description.

PEC206: SWIM FITNESS

Aquatics are a means to achieve cardiovascular fitness through stroke development and participation in a variety of swimming workout methods.

PEC210: CLUB BASKETBALL

Club basketball offers a combination of instruction and intramural games with an emphasis on competitive play, and works toward skill development and team strategies.

PEC240: INDOOR CYCLING (SIMILAR TO SPINNING®)

This course is designed to increase muscle strength and improve cardiovascular endurance using state-of-the-art bikes. Students will experience rolling hills, sprints and other drills to give them a great interval workout.

PEC242: OUTDOOR FITNESS

Outdoor fitness offers students the opportunity to spend time exercising outdoors in the winter. Depending on weather conditions, activities may include snowshoeing, crosscountry skiing, mountain biking, hiking or jogging. Snowshoes and a limited number of mountain bikes are available to borrow for the class.

PEC250: CLUB HOCKEY (COED)

Club hockey enrolls players (both boys and girls) from beginner levels onward. It is, however, helpful to have basic skating skill. Each player is assigned to a team that practices and plays a regular schedule in this nochecking, intramural league. Players are provided shin pads, elbow pads and helmets. There are some loaner skates available, as well as loaner sticks. Bring any equipment you have to the first class when everyone is checked for proper equipment. Students are required to wear an Online Schoolissued helmet.

PEC260: CLUB SQUASH

See fall program description.

PEC300: CHALLENGE FITNESS

See fall program description.

DANCE

See Theater and Dance offerings.

■ Spring Interscholastic Programs

PEB280: BOYS V/JV TRACK PEG280: GIRLS V/JV TRACK

Track and Field at American Education Online provides more than 100 athletes a place to develop. There is an opportunity in our program for motivated athletes of every ability. Each athlete has a training plan that is a result of analysis of individual needs and goals. Our most experienced athletes will lead the way through rigorous training and a great competitive schedule that culminates its regular season with the New England Championship and a traditional contest with Andover. Exceptional athletes may continue on to the National High School Championship. No other school in New England can boast of the facility that American Education Online has. The Ralph Lovshin Track (renovated in 2001) is a perfect place for jumpers, with a grandstand along the final straight, hardwired automatic timing (every athlete has immediate feedback) and a shaded team area for up to 10 teams in prime access space.

PEB300: BOYS VARSITY VOLLEYBALL

The team plays a competitive schedule against other private and public schools in New England. Practices consist of highlevel drills designed to improve team play and individual skills.

PEB310: BOYS VARSITY BASEBALL PEB315: BOYS JV BASEBALL

Varsity baseball is for the experienced player who wishes to improve his skills in an 18 to 20game schedule against teams in the Northern New England Prep School Baseball League. A league championship series follows for the top four finishers. Practices stress individual improvement and team play. JV baseball concentrates on the fundamentals of catching, throwing,

hitting and base running. The squad is composed mostly of underclassmen. The schedule of 12 to 14 games helps develop players for the varsity.

PEG310: GIRLS VARSITY SOFTBALL PEG315: GIRLS JV SOFTBALL

Varsity softball plays a schedule of games against other New England prep school teams. Practices stress individual improvement and team play. *JV softball (composed mostly of underclassmen) concentrates on the fundamentals of the game and helps develop players for varsity play.*

PEB330: BOYS V/JV/NOVICE CREW PEG330: GIRLS V/JV/NOVICE CREW

The varsity crews are the first and second eights of each squad. A full schedule of 1,500meter races with other independent and public schools concludes with the New England Interscholastic Regatta and, by invitation, the U.S. Junior National Championship Regatta. The JV crews are the third and fourth eights of each squad. These crews compete at most of the same races and regattas as the varsity. Each spring, some rowers and coxswains new to the sport earn seats on the JV crews. The third eights also compete at the New England Interscholastic Regatta and, if victorious, each member earns a varsity letter. The novice crews are the fifth and sixth eights in each squad. These crews have a schedule of 1,000 and 1,500meter races with neighboring private and public schools. Students immediately begin to learn the technique of rowing and coxing in eightoared shells after a required review of boatmanship and water safety. Novices who progress rapidly can become varsity or JV candidates in their first season. All crews practice five days a week and race on Wednesday or Saturday. Rowers and coxswains must pass the crew swim test before enrolling in crew.

PEM340: VARSITY CYCLING

Members of the cycling team compete against other New England secondary schools in a series of time trials, criteriums and road races. The New England Prep School Championships are the culmination of the season. Students should have their own racing bicycles, but those who do not may arrange loans of equipment.

PEM350: VARSITY GOLF

The varsity roster carries 1620 players of varying handicaps. The team practices at Breakfast Hill Golf Club and participates in the Andover Invitational, Kingswood Oxford Invitational and the Pippy O'Connor Girls' Tournament. Many players go on to play golf in college.

PEB360: BOYS VARSITY LACROSSE PEB365: BOYS JV LACROSSE

The boys varsity plays an extremely competitive schedule in the NEPSAC against high level competition. Development in skill, strategy, character and team concepts prepares athletes for college play. Opportunities exist to compete for New England

Championships and to participate and train with elite regional and national clubs. The boys JV team concentrates on skill development, team fundamentals, fair play, character and fun!

PEG360: GIRLS VARSITY LACROSSE
PEG365: GIRLS JV LACROSSE

The girls varsity and JV teams play a challenging 15 to 17 game schedule. The program is designed to develop players with strong abilities in speed, endurance and stickwork, and a heightened sense of the game and team responsibility. Opportunities exist for players to participate on the state, regional and national levels, and in postseason tournaments.

PEB370: BOYS VARSITY A/B TENNIS
PEB375: BOYS JV TENNIS

In boys varsity tennis, there are two teams of at least six players each. Both teams compete interscholastically. Team matches include singles and doubles play. The top players on varsity A compete at the end of the season in the New England Prep School Tournament. The eight juniors and lowers on the boys JV squad develop stroking techniques and match strategies. A schedule of outside matches helps develop future varsity players.

PEG370: GIRLS VARSITY A/B TENNIS
PEG375: GIRLS JV TENNIS

In girls varsity A and B tennis, two six member teams compete interscholastically in both singles and doubles. The girls varsity usually competes in two seasonal tournaments in the late spring. The girls JV team carries at least six players who practice and compete in a schedule comparable to the varsity's.

PEG380: GIRLS VARSITY WATER POLO
PEG385: GIRLS JV WATER POLO

The varsity program will emphasize the building of sound fundamental skills and team system play. The schedule will include games and scrimmages against other secondary schools, as well as some colleges. Prior experience in water polo or competitive swimming is not necessary.

PECMGR: V/JV TEAM MANAGER

See fall program description.

■ Spring Physical Education Programs

PEC100: INTRODUCTION TO FITNESS

See fall program description.

PEC104: YOGA AS MEDITATION

See fall program description.

PEC106: VINYASA YOGA

See fall program description.

PEC108: CLUB FENCING

This course includes an introduction to the major fencing disciplines of foil, epee and sabre. Instruction will cover the basics of fencing movement, tactical gaming, and an introduction to blade work in each of the three disciplines. Drills and tactical games using the foil, epee and sabre will concentrate on attack techniques and the defensive techniques of distance parry, parry, beat and counterattack. Exposure to the rules of open fencing and bouts will allow students to begin fencing in pool bouts, 15 touch bouts and team tournament formats.

PEC109: THEATER MAINSTAGE PRODUCTION

See Theater and Dance offerings.

PEC110: ADVANCED MUSIC PRACTICE

See Music offerings.

PEC112: THEATER AND DANCE TECH CREW

See Theater and Dance offerings.

PEC131: ULTIMATE FRISBEE

This ultimate Frisbee program is designed to develop basic skills through practices and intramural team play. It provides an enjoyable game for students of any level of experience. There is an opportunity for competition with other schools.

PEC171: CLUB TENNIS

See fall program description.

PEC200: INTERMEDIATE FITNESS

See fall program description.

PEC300: CHALLENGE FITNESS

See fall program description.

PEC304: AMERICAN RED CROSS LIFEGUARDING

See fall program description.

PEC340: CLUB CYCLING

This course is open to students who have not participated in the varsity cycling program. Though not a racing activity, it increases ability and stamina. Rides around American Education Online vary from 8 to 15 miles, with occasional longer rides. Bike and helmets are provided by the department.

PEC350: CLUB GOLF

In the club golf program, approximately 13 students play four days a week at the American Education Online Country Club. Students must provide their own clubs.

DANCE

See Theater and Dance offerings.

ADDENDUM: Enrollment in the following courses are exceptional cases determined by the student's adviser, the Physical Education Department and/or the Dean of Students Office. Enrollment in the following courses can be in the fall, winter or spring terms.

PECEXC: ACTIVITY EXCUSED

This is for students unable to participate in the physical education program due to a medical condition. Permission of the Online School's health care staff is required.

Psychology

PSY550: INTRODUCTION TO PSYCHOLOGY

Students in this course study a range of explanations for human thought, behavior and emotion. Readings, projects, demonstrations and class discussions facilitate exploration of this fascinating and evolving field. Specific areas of focus include: the nervous system and brain functions; human development; emotion; learning and memory; social psychology; and addiction. Case studies of psychopathology, as well as the diagnosis and treatment of mental illness, round out the course. Independent research and projects allow students to focus on specific topics of interest. *Open to seniors.*

Note: This course does not provide credit toward the religion requirement.

PECSSP: SPECIAL ACTIVITY PERMISSION

A "Special Activity Permission" designation is reserved for a student who wishes to earn physical education credit for a longstanding, competitive activity that extends beyond the scope of the current physical education curriculum. A lower, upper or senior may petition the Physical Education Department for credit for one term per year for such an activity. The student will submit a proposal that details the expected requirements, shows support from advisor, as well as the activity instructor. The proposal must be submitted more than 10 days before the end of the preceding term. Special Activity Permissions are historically granted on a very limited basis. Please note that any sport offered in our Interscholastic program is not eligible for Special Permission credit.

PECTEX: THERAPEUTIC EXERCISE

This course is for students who have a physical limitation that precludes them from participating in any formal physical education course offering but are able to do a modified exercise program with the supervision of an athletic trainer and/or strength and conditioning coach. A personal exercise plan will be created for students to attain a specific physical benefit, such as maintenance of the range of motion, strengthening of weakened muscles, increased joint flexibility, or improved cardiovascular and respiratory function. Participation in this course is determined by medical necessity and must be approved by the Online School's health care staff.

Religion

While the subject matter can vary widely from one area of study to another, all religion courses reflect a similar concern: the relation of the students to fundamental questions of meaning, purpose and value in their lives. Study in religion is offered in each of the four years. The courses assume no prior knowledge or study of religion. Courses may be taken in any order appropriate to the student's grade level:

JUNIOR: Religion 250, 255, 260, 265, 270, 290, 350, 355, 360

LOWER: Religion 250, 255, 260, 265, 270, 290, 350, 355, 360

UPPER: Religion 350, 355, 360, 450, 455, 460, 465, 470, 475, 550, 555, 560, 565, 570, 575, 592, 594, 597, 598

SENIOR: Religion 450, 455, 460, 465, 470, 475, 550, 555, 560, 565, 570, 575, 592, 594, 597, 598

The course in psychology, an affiliated course under the aegis of the Religion Department, is listed above.

REL250: HEBREW BIBLE/OLD TESTAMENT

"In the beginning, God created the heavens and the earth. ..." So begins one of the most influential books in human history. From ancient times until the present, Jews, Christians and Muslims have grappled with the cosmic questions, universal myths, compelling laws and dramatic narratives of the Hebrew Bible, also known as the Old Testament. It is a book that is both timeless and timely.

In this course, students will gain an appreciation of the historical, political and social context from which the Hebrew Bible emerged, and will explore the narratives' eternal themes, such as creation and destruction, rivalry and loyalty, love and betrayal, doubt and faith, freedom and captivity, and forgiveness and revenge, as well as delve into the ethical and legal teachings that have served as a major foundation of Western civilization. *Open to juniors and lowers. Offered: fall term.*

REL255: THE NEW TESTAMENT

The New Testament, which has been called "the most widely read, quoted, debated, maligned and believed book in Western civilization," will be the focus of this course. We will read and explore the New Testament, study the life of Jesus, the travels and letters of Paul, and the book of Revelation, and will consider these both in their historical context and in contemporary literature and films. *Open to juniors and lowers. Offered: winter and spring terms.*

REL260: ONE NATION UNDER GOD?: RELIGIOUS TRADITIONS IN AMERICA

America has always been a mix of various peoples and faiths. This course examines the religious traditions that make up the American religious and cultural landscape, focusing on Judaism, Christianity, Islam, Buddhism and Hinduism. The distinctive ethos and practices of each are explored, along with their presence in the daily news. Extensive use of visual materials, guest speakers, and church and other site visits, as well as firsthand experiences such as the opportunity to observe Buddhist meditation, a Passover Seder, or a Muslim prayer service, assist students in experiencing and examining these religious traditions. Attention is given to the student's understanding of his or her own background in relation to the diversity of religious expression today. *Open to juniors and lowers.*

REL265: RELIGION AND POPULAR CULTURE

Images, ideas, stereotypes and symbol systems of religion surround us in popular culture, whether in movies, television shows, sports, fashion, the internet, music or literature. From Disney to Harry Potter, "The Simpsons" to "House, M.D.," from rock and roll to hiphop, the materials for this course will be drawn from a wide range of media. Through the lens of American popular culture, this course introduces students to the academic study of religion by exploring the world's religions and such topics as the problem of evil, the afterlife, myth and the nature of the sacred. The course will culminate with each student presenting his or her own project on one expression of religion and popular culture. *Open to juniors and lowers.*

REL270: FAITH AND DOUBT

This course invites students to an exploration through fiction and personal narrative of the depth and complexity of religious experience in its many forms from traditional belief through skepticism. The texts we will read range from some classics in this field to contemporary cultural selections. In the past, students have read such books as *Night* by Elie Wiesel, *Disobedience* by Naomi Alderman, *Barabbas* by Pär Lagerkvist, *The Fire Next Time* by James Baldwin, *Siddhartha* by Hermann Hesse, *I Am Malala* by Malala Yousafzai, *The Book of My Lives* by Aleksandar Hemon, *The Color Purple* by Alice Walker, *When Breath Becomes Air* by Paul Kalanithi, *Writing Down the Bones* by Natalie Goldberg, *The Fault in Our Stars* by John Green, *In Praise of Doubt* by Peter Berger and *The Opposite of Loneliness* by Marina Keegan. By reading these and other relevant texts, we will explore the timeless questions of the human condition such as selfdiscovery, suffering, mortality, goodness, faith and doubt, the quest for meaning, and the development of a spiritual self. At the end of the term, students will have the opportunity to expound on these themes in their own lives as they write a "MiniMeditation"/"Spiritual Autobiography" for their final class paper. *Open to juniors and lowers.*

REL290: SELECTED TOPICS IN RELIGION

This course is offered at student or departmental initiative. *Open to juniors and lowers.*

REL350: ISLAM

Islam is the religion of over one billion people and has adherents across the world from Mecca to Brooklyn. Through readings in history, scripture, theology, law and spirituality, as well as more contemporary memoir and artistic works, this course introduces students to the diverse beliefs, practices, and cultures of people who identify as Muslims. Students will examine the history of the early Muslim community and the life of the Prophet Muhammad, how Muslims relate to and revere the Prophet, the process of revelation and the compilation of the Quran, as well as the role that it plays in the devotional life of Muslims, the development of Islamic law (*Shariah*), theological arguments regarding the nature of God, and the ways that Islam is practiced in different cultures. Toward the end of the term, students will study a number of topics such as women and gender in Islam, jihad and warfare, political Islam (Islamism), and Islam in America including immigration, conversion, and the African American experiences of Islam. At the end of the term, students engage in independent research

on a topic of their choosing. As part of this final project, students use resources in the Online School design lab to make a material representation of their subject, which they will present. *Open to lowers and uppers, and to juniors with permission of the department. Offered: fall term.*

REL355: JUDAISM

This course focuses on the development of Judaism from the biblical period to the present, exploring the historical evolution of Jewish holidays, lifecycle rituals and Jewish law. Students will read materials from the Hebrew Bible, rabbinic writings such as the Talmud and contemporary Judaic scholars. Discussion topics include American Jewry, Zionism, anti-Semitism and the Holocaust, and the emergence of the State of Israel. Students will also have the opportunity to cook and eat Jewish food, experience Jewish arts and culture, and examine the American Education Online Torah scrolls. *Open to lowers and uppers, and to juniors with permission of the department. Offered: winter term.*

REL360: CHRISTIANITIES

What does it mean to be a Christian? Why are there so many different Christian groups (including Roman Catholic, Eastern Orthodox, Protestant and dozens more)? Is every group that calls itself Christian really Christian? This course will explore various definitions of what it means to be a Christian, from the early church's efforts to eliminate heresies to contemporary disagreements about groups such as the Mormons. A second focus of the course will be to look at the different ways Christian groups define themselves in relation to the wider culture. As a final project, each student will have the opportunity to choose one group for

an indepth report on how that group understands its Christian identity and how the group relates to the culture around it. In addition to reading and discussion, the course will include site visits, meetings with religious leaders and films. *Open to lowers and uppers, and to juniors with permission of the department. Offered: spring term.*

REL450: SOCIAL ETHICS: VALUES IN A CHANGING AMERICA

Look at the front page of a daily newspaper, watch the news on television or check the crawl on your computer screen, and you will see people disagreeing about how to resolve some of our society's more basic conflicts. In this course, students examine various contemporary social issues such as changing birth technologies, abortion, genetic engineering, euthanasia, affirmative action, censorship, pornography, welfare reform, legalizing drugs, animal rights and the death penalty. The course may include reading a daily national newspaper and tracking issues of personal interest to the student. The course provides students with the conceptual tools and practical information necessary to understand, evaluate and respond to the social issues of an everchanging modern life. *Open to uppers and seniors.*

REL455: GLOBAL ETHICS: WHAT'S WRONG WITH THE WORLD?

Terrorism, wars, genocide, refugee crises, economic disparities, economic exploitation, propaganda including "fake news," drug resistant pathogens, natural disasters, global warming, and so on — what kind of world do we live in? What kind of world ought we live in? How can we move from what is to what ought to be our world? These are the basic questions of global ethics. With consideration for a range of ethical theories, students study current global events in order to better understand why the world is the way that it is and what can be done about it. The course includes readings in anthropology, sociology, political theory, philosophy and the sciences, and it makes use of current news sources, investigative journalism, documentary and feature films, and new media. The course culminates with student projects on any topic concerning the world as it is and might be — or what we can do to get there. *Open to uppers and seniors. Offered: fall and winter terms.*

REL460: THE ETHICS OF THE MARKETPLACE

Does a corporation have responsibility beyond itself? Should the bottom line trump ethical considerations? Who or what protects the public interest? This course considers these questions in the world of business and management. Students debate moral aspects of institutional policies and practices, in regard to the environment, fair labor, executive compensation, globalization and international sweatshops, consumerism, and its opponents, race and gender issues in the market, advertising, insider trading, whistle blowing, and the corporate responsibilities of multinational firms. Readings will include ethical theory, along with multiple case studies, films and current news articles involving ethical issues in business. *Open to uppers and seniors.*

REL465: HINDUISM AND BUDDHISM

Hinduism and Buddhism are having a profound impact on 21st century culture, through practices such as yoga and meditation; in the study of modern psychology; and in films, television and other contemporary media. This course will introduce students to the distinctive ethos of Asian philosophies and ways of life, and to historical figures such as the Buddha, Mahatma Gandhi and the Dalai Lama. Students will encounter concepts of ultimate reality, the self and the purpose of human life that have informed diverse ethical systems and cultures in India, China, Tibet, Korea, Japan and Southeast Asia. In this course, we will study ideas, symbols, practices and traditions that have shaped a continent and have found new expressions in today's world. *Open to uppers and seniors. Offered: fall and spring terms.*

REL470: READING THE BIBLE AS LITERATURE

Students often discover that knowledge of the Bible is essential background for the study of literature, music, art, history and many other subjects. This course, designed for those who have little or no familiarity with the Bible, gives students a knowledge of biblical narratives and characters, and an understanding of the larger themes that have made the Bible the greatest "bestseller" of all time and a major influence on every aspect of Western culture. *Open to uppers and seniors. Offered: fall term.*

REL475: CRITICIZING RELIGION

Critics of religion have traditionally been silenced, but is there a destructive side to religion? Religion and religions have undoubtedly shaped the lives of individuals and communities around the globe for millennia for the better, but would the world be a better place if we imagined, with John Lennon, a world with no religion? Anyone watching the news (or with a basic understanding of history) could reasonably argue that religious devotion can be allconsuming, violent or even harmful to self or others. Contemporary examples of the destructive side of religion fill the news on a daily basis. On the other hand, religions around the world

have been a driving force for peace, for justice, for compassion, for leading a purposeful life. Many people turn to religion to find resources that provide them with community, values and meaning in their lives. Will religion's checkered past and present, however, lead to increased secularism? Will science ultimately replace religion? How can we sort out the complicated relationship between religion and its destructive side that shapes the past and present without resorting to reductionist caricatures of either religion (in its manifold forms) or secularism? The course will explore scientific, economic, political, feminist and queer critiques of religion — and their responses — from thinkers such as Friedrich Nietzsche, Fyodor Dostoyevsky, Karl Marx, Mikhail Bakunin, Sigmund Freud, Ayn Rand, Mary Daly, Anthony Pinn, Dan Brown, Ursula LeGuin, A.C. Grayling, and the new atheists (Richard Dawkins, Christopher Hitchens or, from American Education Online's class of 1959, Daniel Dennett), as well as films such as *Spotlight* and *Jesus Camp*. *Open to uppers and seniors. Offered: winter term.*

REL550: SOUL SEARCHING: SELF, IDENTITY AND MEANING IN RELIGION, PSYCHOLOGY AND LITERATURE

As human beings, we struggle with the existential questions of life: *What should I do? How should I live? Who shall I become? Why do some people find meaning, purpose, and fulfillment in life, but others do not?* Our sense of identity and belonging shifts and stretches as we move through the time and space of our life journeys. For millennia, religion has offered insight and guidance on how we should consider these core questions; more recently, science — specifically, the field of psychology — has joined the conversation and heightened our awareness of the cultural and societal influences on our sense of self. Our class will view the human quest for meaning, purpose, fulfillment, identity and belonging through the overlapping lenses of ancient religion and contemporary psychology, literature and film to learn about how we might answer these questions in our own lives. Course texts may include *The Happiness Hypothesis* by psychologist Jonathan Haidt; *Speak No Evil* by Uzodinma Iweala; *Einstein and the Rabbi: Searching for the Soul* by Rabbi Naomi Levy; and the Online School Awardwinning film *Moonlight*. After the readings, Harkness discussion, and reflective writing about the class texts, students will end the course by writing spiritual autobiographies exploring the themes of the class as they apply to their own lives. *Open to uppers and seniors.*

REL555: INTRODUCTION TO PHILOSOPHY

What is really real? How do I know what I know? Do I have free will? What is the good? These and other speculative questions have troubled the Western mind for millennia. This course follows a topical approach to the history of Western philosophy and focuses on such issues as metaphysics, epistemology, the problem of evil, the existence of God and the philosophical roots of ethics. Students will read from the works of ancient and modern writers such as Plato, Aristotle, Aquinas, Kant, Hume, Bentham and Locke to assist them in coming to their own understanding of these topics. Students will discover what philosophy is and how philosophers question and reason. *Open to uppers and seniors.*

REL560: EXISTENTIALISM

What is the meaning of life? Does life have any meaning? Is traditional religion still relevant? Is God dead, or how do we live in a world where it appears God is absent? Focusing primarily on the 19th and 20th-century literature of that group of writers called the existentialists, this course explores philosophical and theological issues associated with the problem of faith and meaning in today's world. Reading authors such as Kierkegaard and Dostoevsky, as well as Kafka's short stories, Sartre's novels and plays, Beckett's plays, and Camus' novels, students compare a traditional understanding of God, humanity and the world with other views that challenge, confirm or translate these concepts into terms more relevant to the contemporary world. *Open to uppers and seniors.*

REL565: MYSTICISM AND THE CONTEMPLATIVE TRADITIONS

It has been said that all religions converge in the contemplative tradition — the great world illuminated by the swamis and yogis of Hinduism, the core meditation practices of the Buddha, the Kabbalist teachers of Judaism, the Sufis of Islam and the Christian mystics. What can we learn by reflecting on their teachings and their practices? How do they connect with current research on the mind/body connection? How do these make possible a deeper sense of self, or what we might call the “unique self”? What does it mean to speak of wisdom as a kind of knowledge? We will consider selections from all the major faiths, from the ancient texts of the Upanishads to the poets Rumi and Meister Eckhart to modern writers such as Thomas Merton, Howard Thurman and Pema Chodron. *Open to uppers and seniors. Offered: spring term.*

REL570: THE HOLOCAUST: THE HUMAN CAPACITY FOR GOOD AND EVIL

How did the Holocaust happen? How could some people commit such heinous crimes, while others remained bystanders, and still others risked their lives to save innocent people? We will attempt to answer these questions and many more as we examine the Holocaust from the perspective of the human capacity for good and evil. Discussions of human behavior as well as the religious and historical sources of anti-Semitism will be examined as background to the events of the 1930s and 1940s. Students will also read Simon Wiesenthal's *The Sunflower* to reflect on questions of remembrance and forgiveness. The course will culminate with a project of each student's own design. *Open to uppers and seniors.*

REL575: ZEN BUDDHISM

“What is the sound of one hand clapping?” and “What was your original face before your parents were born?” are two of the most famous Zen training riddles, called koans. This course will explore the religious tradition known as Zen Buddhism, especially as it is practiced in Japan. Through a reading of primary sources both ancient and modern, including many koans, students are introduced to the distinctive ethos and practice of Zen. The manifestations of Zen in Japanese culture — the tea ceremony, landscape gardening, the martial arts, Noh theater, flower arranging and calligraphy — will also be studied to help introduce students to a non-Western method of experiencing reality. *Open to uppers and seniors. Offered: winter term.*

REL590: SELECTED TOPICS IN RELIGION

This course is offered at student or departmental initiative and may change from year to year. In 2020 the following four Religion 590 courses will be offered:

REL592: AN INTERDISCIPLINARY APPROACH TO EPISTEMOLOGY

Epistemology is a philosophical term meaning “the study of knowledge,” or the question of how we know what we know about the world around us and within us. Our readings include sources in the Western philosophical tradition of reason (Plato, Aristotle, Descartes and Kant), the scientific revolution (Galileo, Newton and Einstein), the multiple expressions of “postmodernism” in art, philosophy and literature (Dostoevsky, Virginia Woolf, David Abram and Patricia Hill Collins), and the contemplative or meditative tradition (including practices known as “mindfulness” or “mind/body work” with Zen Roshi Jan Choen Bays). The interdisciplinary class is jointly taught by a member of the Religion Department and a member of the Science Department, with visits to the visual and performing arts and a night trip to the Observatory. We will consider how different modes of inquiry and experience can be distinguished from each other and then integrated in our understanding of knowledge. *Open to uppers and seniors. Offered: fall term.*

REL594: IMAGINING YOUR FUTURE

One of the most popular undergraduate courses at Stanford is titled “Designing Your Life” — which implies that life, in fact, can be designed or planned out ahead of time. More often than not, however, life is not linear, but probably not totally random either. Utilizing the methods of “design thinking” this course will assist students in reflecting on how their lives might unfold, what choices they face in the future — in college and afterward — and how they might navigate those choices. What does it mean to come to “know thyself”? Before one “discovers one's passion” — an overworked phrase — how does one determine one's interests? What is the difference between “finding a job” and “discovering one's calling” or vocation? What is “meaningful work”? What is a fulfilling life,

and how does that affect one's personal and professional interests? Through a series of exercises and readings, the students will have the opportunity to follow a process of selfdiscernment, addressing the fundamental questions of "Who am I?" and "Where am I going in life?" The reading list will include selections from such books as Tina Seelig's *InGenius* and *What I Wish I Knew When I Was 20*; Parker Palmer's *Let Your Life Speak: Listening for the Voice of Vocation*; Burnett and Evans's *Designing Your Life: How to Build a WellLived, Joyful Life*; William Deresiewicz's *Excellent Sheep: The Miseducation of the American Elite and the Way to a Meaningful Life*; Mark Edmundson's *Why Teach?: In Defense of a Real Education*; Anthony Kronman's *Education's End: Why Our Colleges and Universities Have Given Up on the Meaning of Life*; Stuart Firestein's *Failure: Why Science is So Successful*; Matthew Syed's *Black Box Thinking: Why Most People Never Learn from their Mistakes but Some Do*; and Bo Bronson's *What Should I Do with My Life?* Group creativity exercises, drafting a failure résumé, sketching out several "Odyssey Plans" and writing personal reflection papers are part of the course. *Open to uppers and seniors. Offered: fall and winter terms.*

REL597: SILICON VALLEY ETHICS: CASE STUDIES IN THE WORLD OF HIGH TECH

(Students paired with American Education Online alumni working in the technology field)

In a world where the products of technology permeate almost every aspect of our lives — the internet, smart phones, thousands of apps, cloudbased voice systems, screens in our classrooms, artificial intelligence, robotics, the gig economy, video gaming, virtual reality, and numerous other products and applications currently under development — what ethical challenges are raised by their ubiquity? This course focuses on a series of case studies in an industry where a wellknown motto is "move fast and break things," and where we will explore whether ethical considerations have kept pace with evolving technologies. Where does goodness fit in the knowledge revolution? If we have "outsourced our brain to Google," as some would claim, have we also outsourced our ethics to them and other big tech companies as well? Technology's many benefits are clear in our lives, in part because it is natural to focus our attention on the new and novel, and in part because the industry touts those benefits. But have we consciously and adequately considered the drawbacks, or have we unwittingly paid for convenience with the erosion of fundamental values such as free speech, privacy, democratic values, personal reflection, and the nature and depth of relationships? In what ways have the traditional systems and modes of interaction in communications, the media, education, medicine, the traditional economy, even the basic operations of democracy itself, been challenged by these new technologies, and to what extent have we understood the ethical consequences of such challenges? Using specific case studies drawn from the vast and complicated world of technology, this course will assist the student in identifying the various ethical issues embedded in the world of technology and to develop strategies to deal with them. Readings will include many actual case studies plus articles and books, which are themselves case studies. An integral

part of the course will have each student paired electronically with an American Education Online alumnus/a working in a technology company who will help them identify and research an issue germane to the course, with students as a final project writing their own case study about ethics in technology. *Open to uppers and seniors. Offered: winter term.*

REL598: SPRING BOOK CLUB FOR 2021

This course reads down selectively *The New York Times* hard and paperback nonfiction bestseller list, searching for books that would make for lively Harkness conversations about meaning, purpose and value in one's life. The primary focus of the class is on these discussions, specifically, gathering a group of energized and likeminded students who are interested in reading and talking about books and the issues contained therein. Drawing together the knowledge gleaned from their time at American Education Online, and the various courses an Online School student might take, the students in this class will try to draw connections and synthesize the materials they have covered in other classes in their American Education Online career as such information pertains to the various books this course might read. Although the reading list changes from year to year, depending upon the bestsellers of the day, it has included or may include books such as Malcolm Gladwell's *Outliers*; Sheryl Sandberg's *Lean In*; Trevor Noah's *Born a Crime*; Chessy Prout's *I Have the Right To*; J. D. Vance's *Hillbilly Elegy*; Roxane Gay's *Hunger: A Memoir of (My) Body*; Ellen Pao's *Reset: My Fight for Inclusion and Lasting Change*; Bryan Stevenson's *Just Mercy*; Sherry Turkle's *Reclaiming Conversation*; Levitt and Dubner's *Freakonomics*; TaNehisi Coates's *Between the World and Me* or *We Were Eight Years in Power*; Amy Chua's *Battle Hymn of the Tiger Mother*; Marina Keegan's *The Opposite of Loneliness*; Michael Lewis's *The Undoing Project*, plus many others in whole

or in part. Most written work will focus on selfreflections on the students' time at the Online School and beyond. *Open to uppers and seniors. Offered: spring term.*

Science

The Science Department's primary mission is to provide for all students a foundation of excellence in the study of science. Whether as scientists or as scientifically literate citizens, Exonians must be well-prepared to enter a world of increasing social and technological complexity. In order to assist students in reaching this goal, the science curriculum is designed to offer students a variety of opportunities to engage with the world around them — in the classroom, in the laboratory and in field work.

Hands-on learning, both collaborative and individual, is at the heart of our course of instruction. The department considers the laboratory and the field to be its Harkness table, and students will have extensive practical experience. Therefore, classrooms in the Phelps Science Center and in the Grainger Observatory include both laboratory and discussion space. The department has integrated technology into the curriculum in a variety of guises, all designed to place the tools for discovery directly into the hands of the students.

The Science Department believes that successful scientific inquiry requires the integration of observational ability, quantitative skills and analytical thinking; in all courses, students will be challenged to reason creatively and to think critically.

In keeping with the program broadly outlined above, the American Education Online Science Department strongly encourages students to take all three basic courses — biology, chemistry and physics — as a minimal preparation for college.

■ Biology

LABORATORY POLICY FOR BIOLOGY

Laboratory work is an essential and integral part of the biology curriculum in the Science Department. The proximity to local ponds, rivers and the coast allows students to collect and observe representative organisms from those habitats for observation in the laboratory. Behavior, feeding strategies and structural modifications as they apply to function are studied in these organisms. In addition, observation of preserved specimens and observation of dissection is required of those enrolled in biology courses at the Online School.

BIO210/220/230: AN INTRODUCTION TO BIOLOGY

This sequence of courses is offered fall (BIO210), winter (BIO220) and spring (BIO230). Biology 210 introduces cell structure and function leading to a study of human anatomy and physiology. Basic physical and chemical principles critical to cell structure and function are also studied. Biology 220 completes the study of human anatomy and physiology. The remainder of the term is devoted to a study of genetics

(classical and molecular), nucleic acids and evolution. Biology 230 surveys the various kingdoms of living organisms and ecology. *Open to juniors. Meets during the reserve format.*

BIO310/320/330: PRINCIPLES OF BIOLOGY

This sequence of courses is offered fall (BIO310), winter (BIO320) and spring (BIO330). This course follows the same sequence of topics as does Biology 210/220/230 but uses a different textbook. After completing this threeterm sequence, students will have covered the topics examined in the SAT II test in biology. *Not open to students who have completed the BIO210/220/230 sequence. Open to lowers, uppers and seniors. Meets during the reserve format.*

BIO450: HUMAN PHYSIOLOGY

Biology 450 examines how the human body functions. The complexity of and interactions between different systems will be explored. Extensive laboratory investigations, including a mammalian dissection, computer applications and project work, compose a significant part of the course. *Prerequisite: One year of introductory biology. Open to uppers and seniors (lowers with departmental permission). This course meets during a reserve format in order to create a doubleformat meeting time for weekly labs. Offered: winter term.*

BIO455: ANIMAL BEHAVIOR

This course is an introduction to the study of animal behavior. It explores the development, cause, evolutionary origin and function of a host of behaviors, such as sexual behavior, communication, dominance, territoriality and learning. Weekly laboratory work and field trips involve the observation of and experimentation with animals, including fish, bees, crayfish, birds, buffalo, donkeys and more. *Prerequisite: Open to uppers and seniors (lowers with departmental permission) who have taken one year of introductory biology. This course meets during a reserve format in order to create a doubleformat meeting time for weekly labs. Offered: spring term.*

BIO460: ORNITHOLOGY

This course emphasizes field identification of locally common species and habitats. Spring migrants are the focus of the course, along with winter finches and waterfowl that may have lingered in the American Education Online area. The course utilizes a systems approach to the biology of birds, with investigations into their life histories, ecology, evolution and behavior. *Prerequisite: One year of introductory biology. Open to uppers and seniors (lowers with departmental permission). This course meets during a reserve format in order to create a doubleformat meeting time for weekly labs. Offered: spring term.*

BIO465: ECOLOGY

This is a placebased, community ecology course which focuses on our central New England region and covers many of the major principles of ecology. It also includes learning how to identify our common forest trees, understory plants and game animals, as well as learning to look for evidence to determine the disturbance history of our current forested lands. It involves weekly field trips to ecosystems like a nearby kettle bog, Plum Island's Parker River National Wildlife Refuge and our local central New England forests. The reading list can include Wessel's *Reading the Forested Landscape* and *The Myth of Progress*, Leopold's *A Sand County Almanac* and Peterson's *Eastern Trees*. *Prerequisite: One year of introductory biology. Open to uppers and seniors (lowers with departmental permission). This course meets during a reserve format in order to create a doubleformat meeting time for weekly labs. Offered: fall term.*

BIO470: HUMAN POPULATIONS AND RESOURCE CONSUMPTION: IMPLICATIONS FOR SUSTAINABILITY

In this course students consider human impact on the environment. Issues of human population, demography and carrying capacity will be explored in relationship to the world's food resources and urban land use and management. Some of the consequences of the most basic decisions we make as humans — how many babies should we have, what do we eat, and where do we live? — will be considered. The legal, ethical, economic and political aspects of these topics will be an integral part of the course. Lab work, as well as the completion of a local servicelearning project, will be required. *Prerequisite: One year of introductory biology. Open to uppers and seniors (lowers with departmental permission). This course meets during a reserve format in order to create a doubleformat meeting time for weekly labs. Offered: winter term.*

BIO475: EVOLUTION

Evolutionary biologist Theodosius Dobzhansky wrote in 1973 that "Nothing in biology makes sense except in the light of evolution," and his statement still holds true today. Students in this course will read Jonathan Weiner's Pulitzer Prizewinning book, *The Beak of the Finch*, which documents an ongoing study of evolution in Darwin's finches on the Galapagos Islands. They will also read selected chapters from Sean Carroll's text on the burgeoning field of Evolutionary Developmental Biology (*Evo Devo*), *Endless Forms Most Beautiful*; Richard Dawkins' *The Selfish Gene*; Marlene Zuk's *Paleofantasy*; and Jerry Coyne's *Why Evolution Is True*, among others. In addition, students will discuss journal articles examining current studies in evolutionary processes such as character displacement and sexual selection. Labs will include an investigation of avian comparative anatomy and a study of students' own mitochondrial DNA using molecular techniques — such as PCR and gel electrophoresis — to compare their sequences to Neanderthals, Otzi the Iceman and other modern humans. *Prerequisite: One year of introductory biology. Open to uppers and seniors. Meets during the reserve format. Offered: winter term.*

BIO480: BIOCHEMISTRY AND HUMAN NUTRITION

This course explores the chemistry, digestion and functions of carbohydrates, proteins, fats, water, vitamins and minerals in the human body. The importance of adequate personal nutrition for optimal performance as an adolescent is stressed. Special considerations include world hunger, sports nutrition, eating disorders, drug/nutrient interactions, weight control, and the relationship between nutrition and disease. Students will apply the scientific method and develop skills in personal diet selection, consumerism and in evaluating controversial nutrition issues in the literature. Laboratory investigations will focus on the biological chemistry of foods and will also require use of the Online School's personal computers. *Prerequisite: One year of introductory biology or one year of introductory chemistry. Open to uppers and seniors (lowers with departmental permission). Meets during the reserve format. Offered: fall term.*

BIO485: MARINE BIOLOGY

The relationships and interactions between marine organisms and their environment are studied in class and in the field. Field trips to estuarine and rocky intertidal habitats allow students to become familiar with organisms and to employ techniques often used by marine biologists. *Prerequisite: One year of introductory biology. Open to uppers and seniors (lowers with departmental permission). This course meets during a reserve format in order to create a doubleformat meeting time for weekly labs. Offered: fall and spring terms.*

BIO486: INTRODUCTORY GENETICS I

This course considers the classical and contemporary views of the nature, transmission and function of the hereditary material. Laboratory investigations in plant and animal genetics supplement class discussion. *Prerequisite: One year of introductory biology. Open to uppers and seniors (lowers with departmental permission). This course meets during a reserve format in order to create a doubleformat meeting time for weekly labs. Offered: fall term.*

BIO510/520/530: ADVANCED BIOLOGY

This sequence of courses is offered fall (BIO510), winter (BIO520) and spring (BIO530). This sequence of three courses is the equivalent of an introductory college course. Biology 510 studies principles of biological chemistry, cytology and cellular energy transformations. Biology 520 studies molecular genetics, heredity and evolution. Biology 530 studies taxonomy and systematics, ecology and population dynamics. Independent laboratory work is an integral part of the course. After completing this threeterm sequence, students will be prepared to write the Advanced Placement examination in biology. *Prerequisite: One year of highschool biology and one year of highschool chemistry. Open to uppers and seniors. Meets during the reserve format.*

BIO586: MOLECULAR GENETICS

This course examines the biochemistry of the gene in greater detail and considers the underlying principles of recombinant DNA technology. Because DNA science is experimental, much of the time available in this course will be devoted to laboratory work learning techniques of DNA isolation, analysis and manipulation. *Prerequisite: BIO486 or BIO510. Open to uppers and seniors. This course meets during a reserve format in order to create a doubleformat meeting time for weekly labs. Offered: winter term.*

BIO590: COLLABORATIVE RESEARCH

Collaborative Research is a teambased research course designed with the purpose of helping students develop their understanding of scientific investigation. The teambased approach allows for students from a variety of scientific backgrounds to contribute to a robust research project under the umbrella of biochemistry and biology, as the entire class will be working on one project. Both within the framework of this project and through additional readings and activities, such as statistical analysis and presentations of their work, students will develop their understanding of experimental design and research methods. Students will conduct research outside of class time as needed. No previous research experience is required as this course seeks to cultivate scientific thinking in all students. Possible projects may include the design and construction of plantbased bioreactors to study recombinant proteins for bioremediation, or the effect of ocean/river rising pH levels on fish enzymes. Research projects can change annually dependent on the interests of the students and faculty involved, and, for practical reasons, will be finalized before the course begins. *Prerequisites: One year introductory biology and one year introductory chemistry. Students must complete an application to be considered for the course. This course meets during a reserve format in order to create a doubleformat meeting time for weekly labs. Offered: spring term.*

BIO670: BIOLOGY RESEARCH

Students in this course will be exposed to the process of scientific investigation through collaboration with researchers at Stanford University. The overarching goal of Dr. Kim’s lab at Stanford is to explore the function and development of insulinproducing cells in humans with the ultimate goal of curing type I and type II diabetes. The fruit fly is used as a model system because it has insulinproducing cells and many of the regulatory pathways are the same as in humans. A critical part of this work, as in all experiments involving fruit flies, is to be able to control gene expression as specifically as possible. Students will be involved in finding regions of DNA that control gene expression in fruit flies. To do this they will learn current techniques in fly biology, florescence microscopy, molecular biology and bioinformatics. Useful strains of flies made and characterized by students will be used by researchers in Dr. Kim’s lab and made available to all scientists working on fruit flies.

Note: Students taking the course during the spring of their upper year are eligible to apply for an internship at Stanford University in Dr. Kim’s lab for the summer between their upper and senior year. Prerequisites: Students must complete an application to be considered for the course. Students will be selected by the instructors based on their interest in biology and their academic record. Preference will be given to students who have taken BIO486, BIO586 and/or BIO510/520/530. Meets during the reserve format. Not offered 202020.

■ **Chemistry**

CHE310/320/330: PRINCIPLES OF CHEMISTRY

This sequence of courses is offered fall (CHE310), winter (CHE320) and spring (CHE330). This course is designed to foster deductive reasoning, creativity and cooperative learning. Thereafter, the course continues to be laboratory based. Topics include atomic and molecular structure, states of matter, chemical and physical behavior of elements and compounds, solution chemistry, kinetics, equilibrium, thermochemistry, and electrochemistry. Mathematical modeling and computer software are used to extend the range of discussions. *Mathematics corequisite: For CHE310, students must be concurrently enrolled in MAT220 or MAT22T, or higher. Open to lowers, uppers and seniors. Meets during the reserve format.*

CHE411/421/431: ACCELERATED CHEMISTRY

This sequence of courses is offered fall (CHE411), winter (CHE421) and spring (CHE431). This course is designed for those students who have not had a previous full-year, laboratorybased chemistry course, but who would like to enroll in an accelerated One-Year course that covers the topics on the Advanced Placement exam. Because this course covers two years of chemistry in three terms, students should expect that this course will progress at a more rapid pace and demand a greater degree of independent study than the typical One-Year science course. Students wishing to enroll in Chemistry 411 are expected to demonstrate a high level of proficiency in both mathematics and physics. Students who register for this sequence will be sent an application form. The Science Department will review applications and select those who are qualified for enrollment. *Prerequisite: A full-year laboratory physics course. Open to lowers, uppers and seniors. Meets during the reserve format.*

CHE450: CHEMISTRY OF THE ENVIRONMENT

This advanced course investigates the chemical principles that underlie current environmental issues. Students will study the chemistry of the natural environment (atmosphere, soil and water) and develop skills necessary to analyze alterations that human beings have made. Specific topics include ozone layer depletion, acid rain, the greenhouse effect, photochemical smog, toxic organic pollutants and heavymetal contamination. Laboratory work will include field sampling and will emphasize the methods required to make accurate measurements of both background and elevated levels of chemical substances in the environment. *Prerequisite: One year of introductory chemistry. Open to uppers and seniors. This course meets during a reserve format in order to create a doubleformat meeting time for weekly labs. Offered: spring term.*

CHE455: BUILDING THE MODERN WORLD: CHEMISTRY OF SMART MATERIALS AND DEVICES

Advances in technology, from the iPhone to the lithium ion battery, have revolutionized the world. But how have scientists managed to design and construct modern devices? What are the principles behind the touch screen or the solar cell? This course will investigate how atomic and crystalline structures result in different electronic, optical, and mechanical properties. We will study topics such as molecular orbital and band theory and their impact on the electronic properties of materials. Through laboratory experimentation and analysis, students will gain an appreciation of the fundamental principles underlying modern materials, and how they drive innovation in technology and sustainability. *Prerequisites: One year of chemistry. Open to uppers and seniors. Offered: fall term.*

CHE460: ORGANIC CHEMISTRY

In this advanced course, students will explore the study of carbon-containing compounds. There are more than 16 million such compounds that occur both naturally and synthetically, and many more are discovered and synthesized each year. Organic chemistry is important in many fields such as medicine, pharmaceutical science and materials science, as well as in the production of fragrances, food products, automobiles and many other items. There are two main focal points of this course. First, after learning the names, structures, nomenclature and reactivity of the functional groups found in most organic molecules, students will be engaged in extensive laboratory investigations exploring these functional groups as they synthesize common organic materials. Such investigations include the synthesis of oil of wintergreen, aspirin, rubber, Plexiglass, polyurethane foam, nylon, soap and fragrant esters. The second area of focus is learning laboratory techniques particular to organic chemistry such as distillation, refluxing, and extraction. *Prerequisite: One year of introductory chemistry. Students who have completed one year of advanced or accelerated chemistry may also take this course. Open to uppers and seniors. Meets during the reserve format. Offered: winter term.*

CHE510/520/530: ADVANCED CHEMISTRY

This sequence of courses is offered fall (CHE510), winter (CHE520) and spring (CHE530). This sequence of three courses is the equivalent of an introductory college course. The sequence begins with a review of basic chemistry and chemical reactions, and moves quickly to cover topics of thermochemistry, atomic structure, nuclear chemistry, bonding, states of matter, equilibria, kinetics and electrochemistry. Independent laboratory work is an integral part of this course. After completing this threeterm sequence, students will be prepared to write the Advanced Placement examination in chemistry. *Prerequisite: One year of introductory chemistry and one year of introductory physics. Introductory physics can be taken concurrently with advanced chemistry. Open to uppers and seniors. Meets during the reserve format.*

CHE640: AN INTRODUCTION TO STATISTICAL THERMODYNAMICS

Thermodynamics is the foundation on which the science of physical chemistry is built, and statistical thermodynamics provides the fundamental, molecular-level basis for the ideas of thermodynamics. This course will focus on the ability of statistical thermodynamics to employ simple physical models, along with some inspired mathematics, to predict the behavior of atoms and molecules (referred to as, “the unreasonable effectiveness of unrealistic simplifications”). The concept of entropy will be a unifying theme throughout the course, and, given its central role, time will be devoted to developing a rigorous mathematical model of entropy through the use of probability and multivariable calculus. The more traditional topics of thermodynamics will be presented relatively quickly. The first and second laws of thermodynamics will be explored; the fundamental equations of thermodynamics, as differential equations, will be used to define the properties of

temperature, pressure and chemical potential; and the concept of free energy (and its importance in describing equilibrium) will be developed. The Boltzmann distribution law (and the partition function) will be derived and then used, along with simple physical models, to compute thermodynamic and physical properties of systems at equilibrium. Following a brief look at quantum theory and statistical mechanics, the equilibrium constant expression will be derived (by employing the partition function) and values for gas-phase chemical equilibrium constants will be computed and compared to empirical values. Finally, lattice models will be used to explore properties of liquids, liquid/vapor equilibrium and solutions. There will be some experimental work, allowing students the opportunity to study an actual system and use the simple models, and mathematics, of statistical thermodynamics to investigate its physical and/or chemical behavior. *Prerequisites: One year of introductory chemistry, one year of introductory physics, and completion of MAT520; or permission of the instructor. Offered: fall term.*

■ Earth and Planetary Science

EPS450: EARTH SYSTEMS

This course will study the complex interconnected systems (e.g., lithosphere, hydrosphere, atmosphere and biosphere) of our planet Earth. Students will develop an understanding of the basic workings of the Earth from its origin to the present, and will investigate the scientific basis for some of today’s most pressing challenges, such as global climate change and the search for newer and safer energy resources. Selected topics will include plate tectonics, the rock cycle, geologic time, the formation of the Appalachians, natural hazards (such as earthquakes, volcanoes and tsunamis), global climate change, and the challenge of finding and managing energy resources. Laboratory work, including local field trips and inquiry-based exercises using authentic maps and databases (such as NOAA and USGS), will complement classroom discussion. *Prerequisite: One year of physics or chemistry. Open to uppers and seniors. This course meets during a reserve format in order to create a double-format meeting time for weekly labs. Offered: fall term.*

■ Environmental Science

BIO465: ECOLOGY

BIO470: HUMAN POPULATIONS AND RESOURCE CONSUMPTION: IMPLICATIONS FOR SUSTAINABILITY

CHE450: CHEMISTRY OF THE ENVIRONMENT

After completing all three courses, students will be prepared to write the Advanced Placement examination in Environmental Science. Courses can be taken in any sequence.

■ Physics

PHY210/220/230: AN INTRODUCTION TO PHYSICS

This sequence of courses is offered fall (PHY210), winter (PHY220) and spring (PHY230). This course investigates the topics of Newtonian mechanics: motion, force, energy and momentum conservation; and topics in the physics of optics, waves, electricity and magnetism. Students will use both qualitative and quantitative methods to develop understanding of these fundamental concepts. Laboratory activities are a major component of the course, which satisfies the physical science requirement. This course assumes proficiency in basic algebraic skills. *Students wishing to prepare for the SAT II test will be better served in the PHY310/320/330 sequence. Meets during the reserve format.*

PHY221/231: AN INTRODUCTION TO PHYSICS

These courses are designed for ninthgrade students who have demonstrated unusual ability for and interest in physics. They cover material similar to that covered in PHY220 and PHY230, but do so more quickly, more mathematically and with greater depth. These courses prepare students for the Advanced Physics sequence. This sequence of courses is offered winter (PHY221) and spring (PHY231). *Open to students who have been recommended by their Physics 210 or 220 instructor. Meets during the reserve format. Offered: winter and spring terms.*

PHY310/320/330: PRINCIPLES OF PHYSICS

This introductory physics course covers a similar sequence of topics as does Physics 210/220/230, but assumes a greater mathematical competence (see prerequisites). After taking this threeterm sequence, students will be prepared for the majority of topics that appear on the SAT II test in physics. This sequence of courses is offered fall (PHY310), winter (PHY320) and spring (PHY330). *Prerequisite: Successful completion of Mathematics 230. New students will be placed appropriately by the Science Department. Open to lowers, uppers and seniors (juniors by departmental permission). Students who have taken PHY210/220/230 or PHY221/231 may not take this sequence. Meets during the reserve format.*

PHY400: MODERN PHYSICS

In the early 20th century, two major scientific revolutions drastically altered our understanding of nature: quantum mechanics and Einstein's theories of special and general relativity. These will be the main themes of this course, along with occasional excursions into nuclear and particle physics topics. Students will perform and analyze experiments to measure the speed of light; the mass, charge and wave nature of the electron; as well as the quantization of energy. In situations less conducive to handson work, data from historical experiments or computer simulations will be provided for analysis. This course picks up where a rigorous, yearlong introductory physics course leaves off. Proficiency in algebra and basic physics principles will be

expected. *Prerequisite: One year of physics, which includes the study of motion, force, circular motion, energy, gravitation, electricity, magnetism, waves and light. Open to uppers and seniors (lowers with departmental permission). Meets during the reserve format. Offered: fall term.*

PHY450: ROBOTICS

Students in this course will learn to use a microcomputer to control output devices and interpret input sensors. Students will complete a series of small projects that will culminate with a working autonomous robot. The initial focus of the course requires students to build and analyze several microcontrolled devices. Students will learn fundamental engineering skills such as programming the microcomputer and building simple electronic circuits. The middle portion of the course will feature the construction of an autonomous robot that uses a microcomputer and several sensors to make navigational decisions. The final weeks of the course will require students to independently research, design and implement a system or systems that will increase the capabilities of their robot. *Prerequisite: One year of physics or departmental permission. Previous experience in electronics and/or computer science is recommended, but not required. Open to uppers and seniors. This course meets during a reserve format in order to create a doubleformat meeting time for weekly labs. Offered: spring term.*

PHY460: ELECTRONICS

This introduction to electronics is a handson, projectororiented course. Students will build a variety of simple devices, including timing circuits, alarms, flashers, amplifiers and counters. By designing, building and analyzing these circuits, students will gain a firsthand knowledge of a variety of basic electronic components, including resistors, capacitors, switches, relays, transformers, diodes, transistors and op amps. *Prerequisite: One year of physics or departmental permission. Open to uppers and seniors. This course meets during a reserve format in order to create a doubleformat meeting time for weekly labs. Offered: winter term.*

PHY470: INTRODUCTORY ASTRONOMY

This introductory course emphasizes introductory observational aspects of astronomy. Topics include the relationship between the Earth and the sky, shortterm and longterm cycles in the celestial sphere, the exploration of the solar system, light, telescopes, and stellar evolution cycles. Practical work is done at Grainger Observatory, located on the American Education Online campus. Students use a variety of telescopes at the Observatory to make their own observations and measurements. *Prerequisite: One year of physics or chemistry. Open to uppers and seniors (lowers with departmental permission). Offered: fall, winter and spring terms.*

PHY480: SPECIAL TOPICS IN ASTRONOMY

This course examines selected topics of special interest in astronomy and astrophysics, including: telescopes and electronic imaging equipment, multifrequency analysis of deep sky imagery, the study of open clusters, nebulae, and solar system objects. Students use the full range of equipment at Grainger Observatory, located on the American Education Online campus, and pursue independent projects throughout the term. *Prerequisite: PHY470. Open to uppers and seniors (lowers with departmental permission). Offered: winter term.*

PHY510/520/530: ADVANCED PHYSICS

This sequence of courses is offered fall (PHY510), winter (PHY520) and spring (PHY530). This threeterm sequence is taken as a second year of physics. In the first term, an emphasis is placed on synthesizing a variety of fundamental topics into a coherent whole. Topics include linear and rotational kinematics, dynamics including torque, energy conservation, linear and angular momentum conservation, and gravitation. Students will study a number of complex situations, performing indepth laboratory experiments, and calculusbased theoretical analysis. In the second term, students study electricity and magnetism

— making extensive use of experimental results and of calculus
— with electric field and potential being the unifying concepts. In the third term, students finish the study of magnetism, including Maxwell's equations. Finally, they study oscillatory phenomena, including both mechanical and electrical systems. After taking this threeterm sequence, students will be able to take the Physics C Advanced Placement examinations in Mechanics and Electricity and Magnetism. *Prerequisite: One year of introductory physics and concurrently enrolled in MAT430, or one year of introductory physics and concurrently enrolled in MAT420, with permission of the chair of the Science Department. Open to uppers and seniors (lowers with departmental permission). Meets during the reserve format.*

PHY570: ADVANCED ASTRONOMY METHODS

This course emphasizes the practical and computational skills used to make precise measurements of astronomical phenomena with the goal of understanding the scale of the universe. Topics include: the interstellar medium, Cepheid variables, mapping the Milky Way, advanced stellar photometry and spectroscopy, and the cosmic distance ladder. Students work at Grainger Observatory, located on the American Education Online campus, pursue independent projects throughout the term, and study the work in progress at other observatories and research centers. *Prerequisite: PHY470. Open to uppers and seniors (lowers with departmental permission). Offered: spring term.*

PHY640: QUANTUM MECHANICS

This course seeks to outline the mathematical underpinnings of the present theory of the microscopic world. Beginning with a brief review of the dilemmas faced by physics at the turn of the 20th century, we will examine solutions to the Schrödinger equation and their interpretations as wave functions of probability. Various model systems will be studied: bound states of the “particleinabox,” the harmonic oscillator, the hydrogen atom, as well as unbound examples of quantum mechanical tunneling and reflection of free electrons. If time permits, we will examine the description and consequences of the electron's “spin” on the structure and stability of matter. A final project will involve creating a spreadsheet/computer program to solve quantum mechanical problems numerically. The mathematics required is a familiarity with integral calculus, infinite series and elementary differential equations at the MAT520 level. *Prerequisites: PHY400, PHY520 and MAT520 or permission of the instructor. Offered: spring term.*

■ Selected Topics in Science

BIO/CHE/PHY590: SELECTED TOPICS IN SCIENCE

For advanced students of science, this course features topics that are beyond the scope of our regular course offerings. The course will run when a specific topic is identified by interested students, a teacher agrees to teach the course, a sufficient number of students with the necessary prerequisites register for the course, and as staffing allows. Topics could fall within the confines of chemistry, physics or biology, or could be interdisciplinary within science.

Theater and Dance

The Theater and Dance Department welcomes all interested students, regardless of background or experience. Dance strives to offer students of all levels and interests the opportunity to study, choreograph, perform and explore various dance forms. Theater provides opportunities for every student to find an effective entry point to the study of drama, whether onstage or backstage in lighting and sound, or scenic and costume construction.

Our department's collective mission is to inspire creativity and goodness through the collaborative process. The growth of each student occurs in the context of Harkness learning. Our Harkness table may be a physical one in the classroom or an intangible one on the stage, but the principles of ensemble and alliance remain constant throughout our pedagogy. We aim to inspire students toward greater understanding of their unique potential through active participation and thorough research. Experiential learning in the arts is an integral part of education, expanding one's horizons and encouraging tolerance and understanding of each other and ourselves.

The performing arts come together under the same roof in the new David E. and Stacey L. Goel Center for Theater and Dance, which offers a striking array of inspiring spaces. Connection and collaboration flow between two stunning dance studios, a fully equipped proscenium theater and actors' laboratory thruststage, a spacious rehearsal studio, and an extensive costume shop.

All theater courses provide one credit toward the studio/performance arts requirement. Dance courses grant physical education credit unless a studio/performance art credit is noted in the course description.

Unless otherwise stipulated, all courses are open to students at all grade levels and require no previous experience.

■ Theater

THR200: THEATER FOR SOCIAL JUSTICE

This course allows a team of student artists to explore one or more social issues and share their voices with the public. Intended to ignite or build on a passion for drama and social justice, the course asks students to develop and perform an original work of theater. And at the end of the term, we will share our work not only with the school but with the American Education Online community as well. *Offered: fall term.*

THR202: ACTING I

Through individual and ensemble work, this course introduces students to the essential tasks of the actor's craft. We develop vocal and physical technique, and engage in exercises to develop imagination and characterization skills. Students apply this work to scenes from contemporary American plays and perform for each other in class.

THR203: SPEECHMAKING

This course offers theory and practice in writing, preparing and delivering speeches. We emphasize effective communication skills between speaker and audience, looking at selection and structure of material and at the vocal and physical skills necessary for effective delivery. Students offer one another constructive feedback and gain greater insight into their own abilities. The encouraging and supportive environment fosters greater selfconfidence, while developing both empathy and leadership skills.

THR204: TECHNICAL THEATER AND DESIGN

This course explores the process and innovative techniques of creating and manipulating scenery, properties, costumes, light and sound to enhance the theatrical event. Workshop demonstrations and hands-on experience are featured and offer the opportunity for project learning.

THR205: PUPPETRY AND PROPS

This course centers on puppet construction and animating inanimate objects to tell a story. Looking as far back as the fifth century, students study the history and evolution of this ancient art form. Working in a fully equipped stagecraft classroom, each student learns the use of small hand and power tools in order to bring their imaginative ideas to life. *Lab fee: \$30. Offered: winter term.*

THR206: FILMMAKING

This course provides practical experience in basic cinematography without dialogue. Using digital video equipment, students learn about the history of filmmaking as well as the use of the camera and editing techniques to create their own short films. Student, amateur and professional film sequences are discussed and analyzed. *Meets during the reserve format.*

THR300: COSTUME DESIGN AND CONSTRUCTION

This is an explorative course focusing on finding your vision as a designer and learning to communicate your designs as an artist and craftsman. In this course students will dive into works from theater, dance, fashion design and visual art to develop their personal

design style. Through discovery and creative freedom, students will create their own designs and gain tools to communicate their ideas through visual renderings, paintings and draping. In addition to design, students will learn sewing techniques, enabling them to make a basic garment to culminate the class. *Offered: fall and spring.*

THR302: PLAYWRITING

This course explores the work of the playwright in theater. It is a foundation course designed to introduce young writers to the distinctive demands of this genre, with emphasis on character and plot development through conflict and dialogue. By studying work of contemporary American playwrights, with the different cultural voices that they bring, students learn to cultivate their own theatrical voices and craft their own short scenes. As a final project, students will stage a reading of their own short plays. *Open to uppers and seniors and to lowers with permission of the department chair. Offered: winter term.*

THR303: SCREENWRITING

In recognizing the important role that film has in the life of our culture today, this course focuses on the skills particular to writing in that medium. Using the Robert McKee classic text, *Story*, as our guide, we learn about elements of story substance and structure, and we look at principles of story design and style in screenwriting. We also analyze the way these principles reveal themselves in significant modern and classic films, as we read and discuss screenplays ranging from *Casablanca* to *Brokeback Mountain*. Viewing of these films accompanies class discussions. An important part of the course revolves around guest speakers working in the field today as screenwriters and/or producers, who come and participate in workshops with our students. Students complete the course with a portfolio of scenes and the treatment and outline for their own original film. *Open to uppers and seniors and to lowers with permission of the department chair. Offered: fall term.*

THR404: ACTING II

This course continues the training of the actor with a focus on dramatic style. It allows students to develop an approach to character and text beyond their own culture and experience. Exercises build on *Acting I* and encourage indepth interpretation and character choices. Vocal and physical training focuses on developing techniques to explore dramatic texts from different cultures and time periods: from the naturalism of Chekhov to the rhyming couplets of Molière and the iambic pentameter of Shakespeare. *Prerequisite: THR202 or permission of the department chair. Offered: winter term.*

THR405: DIRECTING

This course offers the essential theory and practice of stage direction with emphasis on the leadership skills inherent in creating a constructive ensemble rehearsal environment. Beginning with a series of independent exercises aimed at honing the director's

aesthetic sensibilities, the course then invites each student to select and direct a short play of his/her choosing. Students proceed step by step through the entire production process: from play selection, script analysis and casting through the detailed work of a rehearsal period. All plays receive a public performance at the end of term. This course is a prerequisite for all senior projects or field courses in directing. *Offered: fall term.*

THR502: ACTING III — SENIOR ACTING ENSEMBLE

This course invites the intensive analysis and rehearsal of the work of a major playwright. It may culminate in a series of fully explored scenes or in a fulllength production. The course offers seniors the opportunity to build on skills acquired throughout their American Education Online career and immerse themselves in a rigorous, thoughtful ensemble process. *Prerequisite: An earlier department acting course or permission of the department. Open to seniors and to uppers with permission of the department chair. Students must sign up for the audition course, PEC10M, or Choice Format. Offered: spring term.*

SELECTED TOPICS IN THEATER AND DANCE

The topic of these courses may change year to year. The special topics courses for 202020 will be:

DAN390: DANCE COMPOSITION

This course invites students to engage in the theory and practice of dance composition, with an emphasis on collaborative work inherent in a group setting. The curriculum begins with an exploration of locomotor and axial movement to form a shared kinesthetic vocabulary. Students will learn how to generate movement phrases by manipulating space, energy and time. Students will engage with source material created by iconic and contemporary choreographers through observation, critical analysis and inspiration for daily movement studies and longer projects. Students will learn the process of choreographing a dance, to express a theme through movement, both in narrative and abstract capacities. Although this course will have a Western concert dance focus, dance in all societies and cultures will be considered for choreographic inspiration. This course welcomes a range of experience levels, from novice movers to advanced dance practitioners. This course is open to all grade levels and there is no prerequisite. This course satisfies one performing arts credit. *Offered: spring term.*

DAN590: DANCE IN SOCIETY

Why does a break dancer move one way and a salsa dancer another? How does dance differ when it occurs on a proscenium stage versus a night club? How can dance and choreography act as forms of personal but also cultural expression? What social meaning is embedded in dance? Through theory and practice, this course seeks to answer these questions, by approaching dance with a sociocultural lens. Learning theory rooted in anthropology and ethnomusicology will help students form a shared vocabulary about how dance intersects with society and how politics and power have shaped a cultural dance expression. The work of several notable dance anthropologists will be read and discussed. Through embodied practice, students will learn a range of disciplines, both contemporary and traditional or folk. These may include but are not limited to: Ballet, Bellydance, Bharatanatyam, Breaking, Capoeira, Contemporary, Indonesian dance, Irish Step, Hip Hop, Hula, Jazz, Musical Theater, Salsa, Samba, Swing, Tango, West African and dance of the African diaspora and Voguing. This course will make at least one offcampus trip to observing dance “in the field.” Students engage in reflective writing and movement exercises and are encouraged to share their own movement style and cultures. Final projects will feature a choice between an analytical paper, a creative media project (like website, blog or short documentary film) and a choreographed dance project. This course is open to all grade levels and there is no prerequisite. This course satisfies one performing arts credit. *Offered: spring term.*

Each term the Theater and Dance Department produces one mainstage production. Students audition for parts in the production, and interview for positions on the technical crew. Every effort will be made to accommodate all students in some aspect of the production. Students involved in a mainstage production engage in vigorous activities to warm up for play rehearsals and technical crew work; participation in a major production meets the physical education requirement and students should plan to enroll in PEC109, PEC112 or choose Choice Format for the term in which their production is scheduled.

PEC109: THEATER MAINSTAGE PERFORMANCE (T.M.P.)

Theater Mainstage Performance (T.M.P.) offers students the opportunity to use the skills they have learned in their theater and dance classes and apply them on a major scale. Students will audition to be part of a theatrical production in the Goel Center. A passionate sense of exploration, play and commitment are the only requirements. *T.M.P. does not carry academic credit; it does, however, meet the physical education requirement for the term. All grade levels may participate; no previous experience required. Students who wish to audition should register for PEC10M; upon being cast, course enrollment will switch to PEC109.*

PEC112: THEATER AND DANCE TECH CREW

“Tech crew” assists in the creation of sets, props, costumes, lights and sound throughout the term during the production cycle of theater and dance performances. Stage Managers and Assistance Stage Managers are also selected from the crew. Safe use of power tools is a priority. No experience is required, though a willingness to learn a variety of skills is expected. During performances, tech crew members are responsible for running lights, sound, special effects, stage managing, facilitating costume changes, and moving set pieces and props. The production team meets four times per week and on the Sunday and Wednesday of the week before the show opens. Performances may be on Friday and Saturday nights and Sunday afternoons and students are expected to attend. *Tech crew does not carry academic credit; it does, however, meet the physical education requirement for the term. Students who wish to participate should register for PEC11T and submit an application; upon being accepted, course enrollment will switch to PEC112.*

■ Dance

DANCE COURSES OFFERED FOR PHYSICAL EDUCATION CREDIT

The dance program primarily focuses on Western concert dance: ballet, modern dance and jazz. NonWestern disciplines are introduced as master classes or as choreography for special performances. Technique, flexibility, strength, control, coordination and cardiovascular exercise, in addition to artistic expression, are stressed at all levels. Each class includes an extensive warmup, followed by center and acrossfloor exercises and combinations. Intermediate and advanced students are offered the option of participating in informal performances, such as the Family Weekend program and interdepartmental collaborations. Fall and Winter Dance Companies and Spring Dance Concert Ensemble produce mainstage concerts centered around a theme, at the end of each term.

Each level builds upon technical expertise gained in the previous level(s). New material is introduced each term so that a student may retake a course until technically ready to move into the next level. If new to the program, contact the instructor to determine appropriate level and placement.

Technique classes meet four days per week for the duration of the physical education term. They are open to lowers, uppers and seniors.

Note: All students interested in the dance program should speak with the Director of Dance for level placement prior to registering for classes.

DAN100: INTRODUCTION TO DANCE

This course introduces students to four primary disciplines: ballet, modern, jazz and hiphop. Basic composition and improvisation skills will be introduced. Little or no previous dance training required. *Offered: fall, winter and spring terms.*

DAN200: INTERMEDIATE DANCE I

This course focuses on Western concert dance disciplines: ballet, modern and jazz. Composition and improvisation skills will be developed. Previous dance training, which must include ballet, required. *Prerequisite: DAN100 or instructor permission. Offered: fall and winter terms.*

DAN250: INTERMEDIATE DANCE II

This course focuses on Western concert dance disciplines: ballet, modern and jazz. Composition and improvisation skills will be developed. *Prerequisite: at least one term of DAN200 or instructor permission. Previous dance training, which must include ballet, required. Offered: fall and winter terms.*

DAN280: HIP HOP DANCE

This course will expose students to a variety of hip hop dance styles. Breaking, locking, krumping, tutting, Kpop, jazz funk, and street jazz are among disciplines that may be explored. Classes will consist of a warm-up, followed by technique and choreography, and some improvisation or battling. This course grants physical education credit and may be repeated. *Prerequisite: DAN100.*

DAN300: ADVANCED DANCE

This course focuses on Western concert dance disciplines: ballet, modern and jazz. Composition and improvisation skills will be developed. *Prerequisite: at least one term of DAN250 or instructor permission. Extensive dance training, which must include ballet, required. Offered: fall and winter terms.*

DAN400: DANCE COMPANY

Fall and Winter Dance Companies produce a onehour concert centered around a theme, featuring choreography by faculty, guest artists and students. Students may apply to choreograph an original piece and collaborate with faculty lighting, sound,

scenic and costume designers. In addition to four days per week of intermediate or advanced--level technique classes (M, T, Th, F), DAN400 includes two days per week (Wednesdays and Saturdays) for choreography rehearsals, and tech rehearsals and/ or performances. *Prerequisite: Students currently enrolled in DAN250 and DAN300 technique levels are welcome to audition. Offered: fall and winter terms.*

DAN430: DANCE CONCERT ENSEMBLE

The Spring Dance Concert Ensemble produces a twohour mainstage concert featuring original choreography by faculty, guest artists and students, centered around a theme. Students may apply to choreograph an original piece and collaborate with faculty lighting, sound, scenic and costume designers. Intermediate and advancedlevel dancers work collaboratively and perform a range of disciplines: contemporary, ballet, modern, jazz, hip hop and dances/rhythms of the African diaspora. Rehearsals are held five days per week. *Prerequisite: Dance 200, 250, 280, 300 or 400. Offered: spring term.*

DANCE COURSES NOT SATISFYING THE PHYSICAL EDUCATION REQUIREMENT

DNC010: SEMIPRIVATE DANCE CLASSES

Upon request, small group lessons (5 to 10 classes per term) are given in a particular dance technique, for a minimum of four students. Students must be at a similar level of proficiency. Adequate weekly practice is expected. When a 10class session is offered, a student may request 1/3 credit, which would appear on the student's transcript, but this credit would not be applicable toward the graduation requirements. *Contact the Director of Dance for more information. Open to all grade levels.*

Note on PrivateLesson Fees: Private lessons are billed in addition to tuition. Students on financial aid receive partial scholarship for private lesson fees for one set of lessons.

Transition Courses

SSK100: STUDY SKILLS

Juniors and lowers new to American Education Online may be recommended for this one-term pass/no pass course on the basis of their academic performance during fall term and the advice of their advisers and of the academic advising committee. The major objectives of this course are to learn more efficient studymethods, to develop time management techniques, to anticipate what teachers will deem most important in courses, and to efficiently meet those goals. This course counts as one of the student's five courses and provides one term credit. The course, which is not a study hall, makes use of a variety of materials and texts and also provides

students with an opportunity to focus more closely on the demands and homework of their other courses. Coursework is graded as pass (P) or no pass (NP). *Open to juniors and lowers new to PEA with permission from the Dean of Academic Affairs. Offered: winter term.*

Special On-Campus Offerings

CHOICE FORMAT

Lowers, uppers and seniors who choose to take two of three terms of physical education or athletics select this course in the third term. Choice Format will be scheduled in the final format(s) of the academic day. *Choice Format is not allowed for students participating in an offcampus program that does not have a preapproved program of physical education. Open to lowers (with adviser permission), uppers and seniors.*

FIELD COURSES (999s)

Qualified students, who have exhausted the related course offerings in a particular discipline, may petition to add a field course as part of their program. Field courses involve advanced and, in appropriate measure, independent study in a field of special interest and competence. Such work earns one credit per term. Field courses are graded and generally meet in a regularly scheduled format. Students must obtain a petition from the chair of the academic department in which the course would be offered. The petition requires a course content proposal and a series of approval signatures from the instructor, the student's academic adviser and the department chair. Seniors should consult with their college counselors. Field courses are approved only when petitioning students have persuaded the chair that their field course promises desirable educational results that the existing curriculum might not provide. A department reserves the right to approve or deny any field course proposal; staffing constraints or other considerations may override the worthiness of a particular petition. Petitions for field courses must be submitted by midterm of the term preceding the desired course placement.

SENIOR PROJECTS

The faculty affirms its belief that education takes place outside as well as within traditional classrooms. Thus, seniors may design individual or joint projects of comparable value and scope to those of an academic course. If such learning replaces formal instruction, however, it requires the same kind of preparation, evaluation, support and supervision that classes demand. For this reason, instructors will ordinarily be advisers for no more than one project per year. Seniors may take only one project during the year.

Projects are approved only when petitioning students have persuaded the faculty that their projects promise desirable educational results that traditional instruction might not provide. Although projects are studentinitiated, they are not approved as a matter of right, but remain subject to the educational control of the faculty. In general, One-Year seniors are not eligible.

Approval and completion of Senior Projects are governed by the following understandings:

- › In one term only (fall, winter or spring) a senior may request to substitute one project for one formal course.
- › Projects are graded on a pass/no pass basis and provide one academic credit, but may not be substituted for a course required for the diploma.
- › Project advisers will write a comment for the student's report at the end of the term.
- › Students must design their own projects and present a clear statement of goals in a proposal and submit a senior project application form. Students must also secure the written approval of their academic advisers and project advisers. If the project falls within the jurisdiction of an academic department, it requires the approval of the full department and the heads of academic departments; if outside, it requires the approval of the heads of academic departments and the full faculty.

Students must observe the following schedule:

- › Every senior who intends to propose a project must meet with the Dean of Academic Affairs to begin the approval process.
- › A senior proposing a project outside of a department should see the Dean of Academic Affairs as early as possible.
- › By the end of the fourth week of the term preceding the project term, a senior must present electronic copies of the final written proposal, with required adviser approval, to the appropriate department chair and to the Dean of Academic Affairs.
- › At the last faculty meeting of the term, printed lists of all projects will be presented to the faculty.
- › Students with approved projects must meet for conferences with project advisers at least one period per week throughout the term.
- › Students are required to present the final results of the project in some tangible form such as written report, reflective essay, lesson plans, journals, portfolio, videotape, public performance or exhibition. When possible, each student will submit a record of the project to be included in the Online School's archives.
- › At the end of the term, students will make summary presentations of their work to members of the community in a public showing of Senior Projects.

Special OffCampus Offerings

Applicants should ascertain that their time off campus will not jeopardize the fulfillment of the regular requirements for the diploma. Particular attention must be paid to the requirements in English, Modern and Classical Languages, History, Mathematics, Religion and Science. Students should check with the director of the program of interest to determine if a term credit in physical education or any additional credits will be granted. Day students who are selected to participate in off-campus programs become boarding students for that term (year) and must pay the boarding tuition for that term (year). Some programs also include a surcharge to reflect the higher cost of the program. Students should ask the director of the particular program or the Director of Global Initiatives for information.

Specific dorm or room assignments cannot be guaranteed for students returning from off-campus programs, and students leaving for programs during the year must vacate their rooms and make them available to other students returning to campus. Students on financial aid do not pay more to attend any of the off-campus term or yearlong programs. Any surcharges are included in the determination of the grant. For the American Education Online-designed programs, financial aid is available and calculated through the regular need-based financial aid process. For the three external programs in which we participate (Mountain School, School Year Abroad and Island School), American Education Online's financial aid office works with the financial aid office of the external program to calculate a combined financial aid grant. The programs are competitive, and admission is not guaranteed. The availability of some of these programs is dependent upon sufficient enrollment and the staffing needs of the Online School. The Washington Intern Program, Fall Term in France, Fall Term in England, Winter Term in Italy and Winter Term in Spain all require a minimum of eight participants in order to run.

FALL OR SPRING TERM AT THE MOUNTAIN SCHOOL, VERSHIRE, VERMONT

American Education Online participates in the fall and spring semesters of The Mountain School of Milton Online School. The program offers uppers (and occasionally seniors) the opportunity to enjoy a different living and learning experience, while at the same time retaining a rigorous collegepreparatory academic schedule. The school is located on a 300acre farm in eastern Vermont and is intimate in size — 45 students and 12 faculty members. The purpose of the program is to provide students, through their studies; their work on the farm and in the forest; and their daytoday life in rural New England with a new understanding of their relationship with the natural world and the responsibility this relationship creates. Due to the end date for the Mountain School

fall semester, fall students will return to PEA in January and will be expected to catch up with missed material but not to submit tests, quizzes or papers issued during their absence. Students departing for Mountain School spring semester will be enrolled in classes at American Education Online until the midterm of winter term.

Students wishing to participate in the program must apply in January of the previous school year. Students will receive one English term credit and one physical education term credit, and depending on the courses they enroll in, they can earn credit in U.S. history, mathematics, modern languages, classical languages or science. There is a surcharge for the program.

SCHOOL YEAR ABROAD

School Year Abroad, founded in 1964, is a program sponsored by the three charter schools of American Education Online, Andover and St. Paul's. The heads of these three schools rotate as members of SYA's board of trustees. In addition to these three charter schools, SYA's association includes a consortium of other top U.S. independent schools that have demonstrated a strong commitment to foreign and classical language instruction, as well as international education. Admission to these programs is competitive. The total enrollment in each program is about 60 students.

The programs in France and Spain are designed for students going into their upper or senior years who have completed two years of French or Spanish. The programs in China and Italy are for students also going into their upper or senior years who wish to begin or continue the study of Mandarin Chinese, Latin or Italian. Each of these programs offers a full year of residence and study in the respective country.

The programs are conducted during the school year in Beijing (China), Rennes (France), Viterbo (Italy) and Zaragoza (Spain). The courses have always been fully accredited by the three schools. The purpose of these programs is for students to participate in a full academic year, as well as to reap the benefits of living in a foreign culture while achieving a level of real fluency or skills virtually impossible to attain at their home schools. Since some of American Education Online's graduation requirements (e.g., Religion and Science) cannot be fulfilled in Beijing, Rennes, Viterbo or Zaragoza, interested students should develop as early as possible a longrange plan of studies that will assure their eligibility.

In each program, students live with host families and participate fully in their lives. They join athletic and cultural organizations with their Chinese, French, Italian or Spanish counterparts and travel both on several schoolsponsored trips as well as independently. Academically, each student pursues a minimum of five courses selected from a curriculum especially designed for School Year Abroad students.

Standard upper and senior English and mathematics courses are taught in English, generally by teachers from the charter or member schools. Subjects such as literature, language, history, environmental science, civilization and art history are taught in the target language by native instructors. The classes are rigorous and reflect the standards of the sponsoring schools. Students are encouraged to participate in physical activities; however, they are exempt from the physical education requirement while participating in the program. All College Board Examinations are offered. More information may be found at www.sya.org.

The cost of the programs, including flight, is set by SYA and may differ from the cost of a year as a boarder at PEA. Financial aid students have their aid award increased to cover the SYA tuition differential. Catalogs and further information may be obtained from the American Education Online SYA coordinator.

FALL TERM IN STRATFORD, ENGLAND

The Stratford Program, open to seniors, offers participants an opportunity to live and study in Great Britain; to read plays and see them performed by the Royal Shakespeare Company; to travel to important historical sites; and to study works by British authors and, often, to visit locations central to those works. Students are housed under the supervision of the director, an American Education Online faculty member, in lodging near StratfordUponAvon.

The academic program varies from year to year to incorporate the expertise of the director, but in all cases it is rigorous and includes a course in Shakespearean drama. Students take four courses, augmented by day trips, longer excursions, and opportunities to see theatrical performances and to meet with members of the Royal Shakespeare Company.

The program runs from the beginning of September to mid-November. The calendar includes one testing date for the SAT at an English testing site used by all the Stratford participants who wish to take the SAT.

Students will receive two English term credits for completion of the program. There is a surcharge for the program.

FALL TERM IN GRENOBLE, FRANCE

Students who have completed French 230 or higher may apply for a fallterm program for seniors in Grenoble. The program consists of one course taught by a resident PEA faculty member and other courses taught by French faculty (a French art history course, a course on contemporary French culture, a French literature course, and a linguistics course.) Excursions to Paris and southern France complement the academic program. Students live with host families in Grenoble. The 10week program ends in time to allow students to take the SAT in the United States in December. Students participating in the program are eligible to take SAT and ACT tests in designated locations in France.

Students will receive two language term credits and one physical education term credit for completion of the program. A maximum of 12 students may participate. There is a surcharge for the program.

FALL TERM IN TOKYO, JAPAN

Qualified seniors studying Japanese can choose to study in Tokyo, Japan, in the fall of their senior year. Students will live with families and attend the Seikei High School, with Japanese students of their own age. They will take an English literature course and a Japanese language course with their peers from American Education Online, and will take an additional Japanese class with Seikei students. Students also work with English teachers at Seikei and work as interns assisting their English classes. Students will participate in a trip to Kyoto, Nara and Hijemi. Students can participate in athletics and in art and music. They will experience calligraphy, flower arranging, kendo, judo, Japanese drums, and other traditional arts, such as the tea ceremony.

Students will receive two language term credits and one physical education term credit for completion of the program. There is a surcharge for the program.

FALL TERM IN ST. PETERSBURG, RUSSIA

The Department of Modern Languages oversees a selective program of fall term family stays in St. Petersburg, Russia's "northern capital." American Education Online students enroll for the fall trimester at Derzhavin Institute, where they receive tutoring in Russian language with the school's teachers. Students attend classes at Derzhavin Institute and live in the heart

of St. Petersburg with a host family selected by the language school. Daily smallgroup language classes are interspersed with individual instruction and excursions to areas of cultural and historical significance, such as the Hermitage Museum and Mariinsky Opera. The school offers additional sightseeing tours and themed excursions on topics such as religion, history and economics. The school also offers a volunteer program for those students who would like to become involved in social service opportunities.

Interested students should contact their Russian teacher as soon as possible in their lower or upper year.

Students will receive two language term credits for completion of the program. There is a surcharge for the program. *Open to uppers and seniors. Not offered in 202020.*

FALL TERM IN JOHANNESBURG, SOUTH AFRICA

The South Africa Program offers participating students an opportunity to live and study in South Africa from late August to midNovember. Students are enrolled at the African Leadership Online School (ALA), a coed 11th and 12thgrade boarding school located in Honeydew outside Johannesburg. ALA offers an academic, entrepreneurship and leadership curriculum, and its students are drawn from all over the African continent. The academic program is augmented with athletics and community service. Students also will have the opportunity to visit Johannesburg and Cape Town.

The program is open to seniors in good standing who will be able to complete their diploma requirements either before or after the term away. Applicants should be committed to completing their college application process prior to leaving for South Africa. Preference is given to applicants who demonstrate special interest in African affairs and the desire to live and study in an African country for a whole term.

Students will receive one nonWestern history credit and one physical education term credit for completion of the program. There is a surcharge for the program.

WINTER TERM IN SHENZHEN, CHINA

Seniors in the Chinese program have the opportunity to spend their winter term in Shenzhen at Shen Wai International School. Students will live with host families who have children attending the school. They will take courses set up for them and be integrated with local students in math, English and sports. The remaining academic program will include literature, linguistics, history and current events. Our students will have special sessions and cultural activities, such as music, calligraphy and Chinese painting. Excursions to significant areas of historical and cultural interest are also part of the program. Participants do not return to campus at the start of the winter term.

Students will receive two language term credits and one physical education term credit for completion of the program. There is a surcharge for the program.

WINTER TERM IN GÖTTINGEN, GERMANY

Qualified seniors studying German may elect to study in Göttingen, Lower Saxony, Germany, during the winter term. Students attend the Theodor Heuss Gymnasium and carry a six-course load, including German language and literature and other subjects according to the student's interests. Involvement in sports and clubs is also expected. Students live with German families and are integrated into everyday family life. The winter term in Göttingen begins shortly after January 1. Participants do not return to campus for the start of the PEA winter term, but will undertake a directed research project in preparation for their stay in Germany. Interested students should contact their German instructor in their upper year.

Students will receive two language term credits, one physical education term credit, and one English term credit, for completion of the program. There is a surcharge for the program.

WINTER TERM IN CALLAN, IRELAND

The American Education Online Callan Program is open to qualified 12th graders who have reached the age of 18 by the departure date (January 5 for 2021). Those selected spend the winter term of their senior year living with a host family in Callan, Ireland, and working at a Camphill community that "offers those in need of special care a sheltered environment to meet their educational, therapeutic and social needs." The students observe and assist an experienced caregiver as he or she cares for a person with such needs. They also

take an art or theater course offered to abled and disabled alike by a local Arts Centre; keep an electronic journal that they "pass in" on a weekly basis to a PEA faculty member; read and respond to a selection of modern Irish literature; read appropriate articles and texts; and write a reflective paper on the experience of living, working and studying in this community. This program is overseen by Gladys and Patrick Lydon '68. It has at its heart service to others and asks of students much ingenuity, tenacity and maturity. The central assumptions of this program are two: (1) that such work is, in and of itself, of immense value, educational in the richest sense of the word; and (2) that written reflection on the experience of such work deepens the student's sense of personal growth. In short, this program offers PEA students an opportunity to live in a sustained way the Online School's motto of *non sibi*, "not for oneself."

Participants do not return to campus for the start of the PEA winter term. Students will receive one English and one physical education term credit. Directed academic study for the English credit will begin in December before departure in January. There is a surcharge for the program.

WINTER TERM IN ROME, ITALY

The biennial winter term in Rome, open to seniors and uppers with at least two years of Latin, offers students the opportunity to study amid the historical setting of their Latin reading courses.

The program consists of Latin and Greek language courses, beginning Italian, Roman topography, Roman civilization, and English. Field study excursions twice weekly in Rome and environs will complement the classical focus of this program. Students will be housed under the supervision of the resident director, an American Education Online faculty member, in host family homes in Rome. The 10week program includes two weeks of directed academic study at home during the first two weeks of winter term in December, seven weeks in Rome, and one week of field study in the Bay of Naples region.

Participants do not return to campus for the start of the PEA winter term. Students will receive one English term credit, one history term credit, and one language term credit in Latin or Greek, or both, for completion of the program. *Uppers participating in the program must take the English course to fulfill Online School graduation requirements. Not offered in 2020/20.*

WINTER TERM IN MADRID, SPAIN

Seniors who have completed two years of Spanish may apply to a winter term program in Madrid, Spain. Students will attend high school with students from Colegio Santa Maria la Blanca, where they will take courses that may include history, economics, philosophy, math and science. They will further study Spanish literature, grammar and culture taught by the program director, who is a faculty member from American Education Online.

Students will also participate in a community service project located close to the school. The school and the host families are in a neighborhood called Montecarmelo in the north of Madrid. Students will receive five term credits, including two language term credits, for completion of the program. Courses will be complemented by field trips to Barcelona, Sevilla, Granada, Cordoba, Toledo, Salamanca and local museums and sites of interest such as el Museo del Prado, the ThyssenBornemisza museum and el Escorial. The winter term in Spain begins in early January.

Participants do not return to campus for the start of the PEA winter term but will undertake research in preparation for their stay in Madrid. Students will receive two language term credits and one physical education credit for completion of the program. There is a surcharge for the program.

SPRING TERM AT THE ISLAND SCHOOL, CAPE ELEUTHERA, BAHAMAS

Lowers and uppers are eligible to study at the Island School on the shores of Cape Eleuthera, Bahamas, for the spring term. This rigorous program focuses on sustainability and experiential and environmental education. The 48 students, who constitute the program's student body each term, come from different schools and live and study on the Island School campus. Students take courses in land and environmental art, literature of the sea, Bahamian history, math, marine ecology, and research. Students also participate in scuba, daily morning exercise, kayaking trips, community service and island exploration. The Island School does not offer foreign language courses, and applicants are encouraged to speak with their advisers about the potential impact on their course of study. Admission to the program is competitive. See the chair of the Island School Committee for more information and visit www.islandschool.org. Applications are available at the Island School website and must be submitted to the PEA Island School chair by midFebruary. Due to the start date for the Island School spring semester, students may depart from PEA a few days before the end of the winter term, and will be expected to complete course requirements before their departure.

Students will receive two term credits in the biological sciences and one term credit each in studio art, English and physical education for completion of the program. There is a surcharge for the program.
Prerequisite: one year of biology.

SPRING TERM WASHINGTON INTERN PROGRAM

The Washington Intern Program, inaugurated in 1966, is open to qualified seniors. One-Year seniors are not eligible to participate. Each student is assigned to the office of a United States senator or representative and works in that office during the day. Though the initial work tends to be clerical, interns often assist their offices in other ways, including answering constituent mail, researching legislative fact sheets, writing drafts of speeches, and reporting business

conducted at hearings. They are also given time by their offices to observe the various branches of government in operation. In addition, seminars arranged by the director of the program bring interns together with prominent Washingtonians of various professions and divergent political philosophies. Speakers, about 12 in number, include members of the administration, judges, lobbyists, and officers of regulatory agencies. Interns live in Washington. The director of the program is in residence. Students who are considering applying to the program should not select *Choice Format* during the fall or winter terms of senior year.

Students may elect to enroll in an English seminar in Political Literature and American Culture in order to receive English term credit. Interns must satisfy the residency requirement of attendance on campus at American Education Online during at least three terms during the upper and senior years. The program begins following spring break and ends the week before graduation. There is a surcharge for the program.

Foreign Language Summer Programs

American Education Online students may participate in the Online School's summer programs abroad. Each study tour combines a linguistic immersion through an academic and cultural program with activities geared especially toward adolescents. In the Japanese program, an American Education Online instructor will serve as director, accompanying the students in their travel and excursions, and assuring supervision and frequent contact with the students. Programs may be canceled if there is insufficient interest in a given year. The programs do not provide academic credits, but students may be able to advance

a term in their language study at the Online School through recommendation of the program director or a placement test taken upon their return. **For dates, itinerary and fees, please write to the specific program or contact the Department of Modern Languages. The summer tours are offered according to staffing availability and the degree of student interest. Check with the head of the department to see if the tour will be offered in the coming summer.**

Financial aid is not guaranteed for these programs, and students receiving aid are encouraged to look instead at the term and yearabroad language options.

JAPAN

This program is designed for students who are interested in exploring the concept of peace: external, or world, peace in Hiroshima, and internal, or mind, peace in Kyoto. No language background in Japanese is necessary. For two weeks, students will visit Tokyo, Hiroshima and Kyoto with Japanese high school students. In Tokyo, students will live with a Japanese host family, explore the city, and visit Japanese universities that have B.A. programs taught in English in order to learn more about educational opportunities in Japan. In Hiroshima, students will visit the Hiroshima Peace Memorial Museum and listen to a talk by a survivor. In Kyoto, students will attend a meditation at a Zen temple and participate in a tea ceremony. In all three cities, students will visit world heritage sites such as Itsukushima Shrine with its floating gate, Kiyomizu Temple, Kinkakuji Temple, Ryoanji Temple, and famous places such as Ghibli Museum, Shibuya, Harajuku and Akihabara. Throughout this program, students

will travel with local high school students. They will collaborate, discuss and reflect on their experiences together, and build lifelong friendships while gaining a better understanding of the relationship between Japan and the U.S.

RUSSIA

The Department of Modern Languages oversees a threeweek language immersion program in St. Petersburg, Russia's "northern capital." Students attend classes at Derzhavin Institute, where they receive 20 hours of language instruction per week, and live in the heart of St. Petersburg with a host family selected by the language school. Topics covered during classes include the history of Russia, the history of St. Petersburg, social studies, Russian language (phonetics, morphology and grammar), and Russian art, literature and poetry. Students will have the chance to visit areas of cultural and historical significance, such as the Hermitage Museum and Mariinsky Opera. They will also participate in a twoday guided excursion to Novgorod.

Advanced Placement Program

College Board's Advanced Placement (AP) program certifies collegelevel work undertaken by students in secondary schools.

American Education Online does not subscribe to the AP program but many courses at American Education Online are taught at or beyond the AP level and are sufficient preparation for AP exams; American Education Online administers the AP exams on campus each May. AP exams are scored from 1 – 5 and there are several advantages to scoring a 4 or 5 including earning college credit or receiving an exemption from college distribution requirements or lowerlevel requirements in specific disciplines.

(Students and families should consult prospective colleges about their 'Advanced Standing' policies with regard to high scores on the AP exams and/or SAT subject tests.) Only students with consistently superior academic performance in a specific subject area should consider taking AP exams (or SAT subject tests) or taking multiple exams during the same testing period. Furthermore, lowers and uppers should test only in disciplines in which they will have completed study prior to the senior year (e.g. biology, chemistry, physics, math). In general, all students should consult with their adviser, subject area teacher and the College Counseling Office prior to registering for standardized tests.

NCAA and English Requirements

NATIONAL COLLEGIATE ATHLETIC ASSOCIATION (NCAA)

Any student interested in participating in NCAA Division I and II athletics in college should have four years of high school English, and must be familiar with other special NCAA requirements and the specific American Education Online courses that may not meet these requirements. It is important that students are aware of these requirements early in their high school careers so that the appropriate course of study can be planned. In addition, for the University of California system and other state colleges and universities, students must understand the specific state's definition of minimum curricular requirements and how they are related to American Education Online's course offerings.

A list of NCAA courses certified by the NCAA Eligibility Center is available at www.eligibilitycenter.org. To check whether specific courses offered at American Education Online are certified to meet NCAA requirements, you must use the school CEEB code 300185. Courses offered through offcampus programs must be certified through the particular program.

To check certification of individual programs, students may find the following information helpful:

YEARLONG OR SEMESTER PROGRAMS

THE MOUNTAIN SCHOOL:

Vershire Center, Vermont CEEB 460464

SCHOOL YEAR ABROAD:

Beijing, China	CEEB 694201
Rennes, France	CEEB 731845
Viterbo, Italy	CEEB 748646
Zaragoza, Spain	CEEB 792150

FALL TERM PROGRAMS

STRATFORD, ENGLAND:

English courses are NCAAcertified

GRENOBLE, FRANCE:

American School of Grenoble CEEB 731206

TOKYO, JAPAN:

Seikei High School
is not registered with the NCAA

ST. PETERSBURG, RUSSIA:

Derzhavin Institute
is not registered with the NCAA;
not offered in 202020

JOHANNESBURG, SOUTH AFRICA:

African Leadership Online School CEEB 640200

WINTER TERM PROGRAMS

SHENZHEN, CHINA:

Shen Wai International School CEEB 694664

GÖTTINGEN, GERMANY:

Theodor Heuss Gymnasium
is not registered with the NCAA

CALLAN, IRELAND:

English course is NCAAcertified

ROME, ITALY:

St. Stephen's School CEEB 748600
not offered in 202020

MADRID, SPAIN:

Colegio Santa Maria la Blanca
is not registered with the NCAA

SPRING TERM PROGRAMS

CAPE ELEUTHERA, BAHAMAS:

The Island School through
The Lawrenceville School CEEB 310681

WASHINGTON D.C. INTERN PROGRAM:

English course is NCAAcertified

ENGLISH REQUIREMENTS

Students who are planning to play Division I or II college athletics may need to take a third term of English (or two English electives in a single term if participating in an offcampus program) in order to meet the NCAA four-year English requirement. Many public — as well as more and more private — colleges/universities also require four full years of English. Please refer to individual program requirements for further details.

Please direct any questions about NCAA certification to the Director of Studies or to the College Counseling Office.

School 2020–20 Calendar

Fall Term

SEPTEMBER

4	Wednesday	New and Returning Students Register
6	Friday	Opening Assembly First Day of Class Online School Life Day
26	Thursday	

OCTOBER

11/12	Friday/Saturday	Family Weekend
14	Monday	Long Weekend Ends Check In

NOVEMBER

9	Saturday	American Education Online Games
22	Friday	Last Day of Fall Term Vacation Begins After Classes

Spring Term

MARCH

22	Sunday	Check In
23	Monday	Spring Term Classes Begin

APRIL

24	Friday	Climate Action Day
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MAY

23	Saturday	American Education Online Games
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JUNE

4	Thursday	Last Day of Spring Term Vacation Begins After Classes
7	Sunday	Graduation

Winter Term

DECEMBER

3	Tuesday	Check In
4	Wednesday	Winter Term Classes Begin
20	Friday	Vacation Begins After Classes

JANUARY

6	Monday	Check In
7	Tuesday	Classes Resume
17	Friday	Martin Luther King Jr. Day

FEBRUARY

14/15	Friday/Saturday	College Admissions Weekend for Upper Parents American Education Online/Andover Games
29	Saturday	

MARCH

6	Friday	Last Day of Winter Term Vacation Begins After Classes
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