



2017-2018

Courses of Instruction

PHILLIPS EXETER ACADEMY

Welcome to Exeter



When John and Elizabeth Phillips founded Phillips Exeter Academy 236 years ago, they sought to ensure that “goodness and knowledge” were united in each student who came to study here. They believed, as we do today, that these qualities united formed the “noblest character.” Centuries later, while the content and delivery of courses may be different, our core values endure.

Today at Exeter, we seek to impart and unite goodness and knowledge through academic courses that challenge you to think in exciting new ways; through twice-weekly assemblies where we come together to experience riveting speakers and programs; through a thriving, student-run community service program that benefits our New Hampshire Seacoast neighbors; through language-learning and study abroad opportunities that enrich students’ cultural competencies; and through a multitude of athletic and extracurricular offerings that strengthen minds, bodies and spirits.

As we hope this book demonstrates, our academic coursework is integral to our mission and a starting point from which our students tailor a holistic learning experience that engages their hearts and minds, and prepares them for living meaningfully in a global society. Some of the courses you will discover in these pages are foundational; they will prepare you for advanced work in a particular subject with expert teachers and talented fellow students. Other courses have become legendary for generations of Exonians — cherished rites of passage not to be missed. Still others, by virtue of their subject matter, are continually renewed to reflect changing cultural and geopolitical landscapes. All share a common aspiration: to inspire curiosity, to provoke questions, and to enhance a collaborative approach to living and learning where all students have a voice.

As you embark upon the course selection process, we encourage you to think of it as a journey, one where you can consult your advisers, teachers, parents, and fellow students, and where you will explore, experiment, and be unafraid to make mistakes and possibly be re-routed. We hope too that during your time at Exeter you will learn how to think, to dissent, to collaborate, to have and express the courage of your convictions, and ultimately to carry forward the principles that are instilled here to your colleges and universities, to your communities, and to the world. That is “the great end and real business of living” that our founders envisioned, and that Exeter’s faculty, staff and students embrace and embody today.

Best wishes,

A handwritten signature in black ink that reads "Lisa MacFarlane". The signature is fluid and cursive, with a large initial "L" and "M".

Lisa MacFarlane
Principal Instructor

2017-2018

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Academic Instruction

Phillips Exeter Academy 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. Exeter also admits a select number of high school graduates seeking an unmatched experience in one year of postgraduate study.

Exeter’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.



THE HARKNESS TABLE

On April 9, 1930, philanthropist Edward Harkness wrote to Exeter’s Principal Lewis Perry regarding a substantial monetary gift he had made to the Academy and how he hoped it might be used: “What I have in mind is [a classroom] where [students] could sit around a table with a teacher who would talk with them and instruct them by a sort of tutorial or conference method, where [each student] would feel encouraged to speak up. . . . This would be a real revolution in methods.”

Since the arrival of “Harkness tables” on campus, the principal mode of instruction at Exeter has been discussion around an oval table. Though teaching and learning look different in different disciplines, all Exeter teachers and students are committed to an ideal of active, participatory, student-centered learning.

A place at the Harkness table requires students to exercise a high degree of self-discipline and to engage eagerly and energetically with both peers and instructors. Exeter is a school for students who take pleasure in this distinctive mode of teaching and learning — one in which each student is in some measure a teacher of the others seated around the table.

1,079 STUDENTS

217 FACULTY

450+ COURSES

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 Academy 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:

- Preps and new lowers may reduce the academic load with the “Health Option.” A student may do this in one term during the first year. The student would continue to be enrolled in Health and Human Development and four full-credit academic courses. (See the Health and Human Development section on page 26 for more details.)

- 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 46 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 upper and senior years by registering for the “Sports Option” 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 required to take Health and Human Development (e.g., preps and new lowers) will earn one-third of a credit each term for the required Health and Human Development course, in addition to the other five required academic courses.
 - › Students enrolled in music lessons or ensembles are eligible to earn 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). All juniors are required to take a partial-credit course in Health and Human Development all year. 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. Lowers 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 Exeter'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, students must earn nine term credits or pass either LAT400 or LAT531.*

COMPUTER SCIENCE: One term credit.

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

HEALTH AND HUMAN DEVELOPMENT: One and 1/3 term credits, earned through the completion of HHD 110/120/130 throughout the ninth-grade year and HHDSTR in the senior year. (See special note under Health and Human Development Department courses.)

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: Ten 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 upper and senior years.

RELIGION: Two term credits.

SCIENCE: Six term credits. Three term credits of biology and three term credits of either chemistry or physics.

DIPLOMA REQUIREMENTS FOR THREE-YEAR STUDENTS

ARTS: Two term credits from among 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, students must earn seven term credits or pass either LAT400 or LAT531.*

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

HEALTH AND HUMAN DEVELOPMENT: One and 1/3 term credits, earned through the completion of HHD 210/220/230 throughout the lower year and HHDSTR in the senior year. (See special note under Health and Human Development Department courses.)

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 of history, including at least two term credits of non-U.S. history, and 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: Seven term credits, or pass a mathematics course numbered 330 or higher.

PHYSICAL EDUCATION: Seven terms. Students may elect to take either two or three terms of physical education or athletics in each of the upper and senior years.

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, students must earn four term credits or pass either LAT400 or LAT531.*

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

HEALTH AND HUMAN DEVELOPMENT: One third term credit earned through the completion of HHDSTR in the senior year.

HISTORY: Three term credits of U.S. history. If U.S. history has been studied in grades 10 or 11 at another school, then three term credits of history, two of which are non-U.S. history, must be taken at Exeter.

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.

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.



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 5. 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 Exeter.

ENTERING GRADE (SEPTEMBER)	CREDITS REQUIRED	PE CREDITS REQUIRED	TOTAL
9	54	10	64
10	41	7	48
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.

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 Exeter's four-year program.

ENGLISH: Two term credits at the 500 level.

HEALTH AND HUMAN DEVELOPMENT: One third term credit earned through the completion of HHDSTR in the senior year.

HISTORY: Students who enter the Academy without credit for one year of U.S. history taken in grades 10, 11 or 12 are required by law to take it at Exeter.

PHYSICAL EDUCATION: Students may elect to take either two or three terms of physical education or athletics.



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:

- › Students must pass all courses (including Senior Projects) taken in the final term of their senior year.
- › Attendance on the campus at Exeter 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 is awarded to students who successfully complete Greek 431 and either Latin 611 or Latin 530.

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 Academy without credit for one year of U.S. history taken in grades 10, 11 or 12 are required by law to take it at Exeter.

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.

Course Offerings

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 Phillips Exeter Academy. 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 Exeter provides exciting, professional and rigorous studio experiences that explore a variety of art mediums in state-of-the-art studios in the Frederick R. Mayer Art Center. Studio courses emphasize a strong blend of technical skills and creative analysis that fosters teamwork, stylistic growth and visual communication. Cutting-edge technology and innovation are connected to traditional studio processes and techniques in sophisticated, contemporary practices. The Exeter 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 on campus, including the Phelps Academy Center, the Admissions Office, the Lamont Health & Wellness Center, the Dean of Faculty Office and the Office of the Principal. Each spring, a vibrant selection of student work is on view and celebrated in the Lamont Gallery.

The Michael Clark Rockefeller '56 Memorial Visiting Artists Fund provides opportunities for Exeter art students to interact with significant contemporary artists and create unique works in a master class environment. Visiting artists offer engaging slide talks in the Jan P. Mayer Auditorium.

■ Studio Courses

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

Note: A student who has advanced-level abilities in a particular discipline can submit a portfolio to the Chair of the Art Department to be considered for possible advanced placement. The Art Department will review the student's work to decide if it is pertinent to bypass a specific prerequisite.

ART202: CERAMICS I: FORM + FUNCTION

The Exeter 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. *All tableware is glazed with materials safe for food, microwave and the dishwasher.* **In lieu of textbooks, there is a materials fee of \$95.**

ART203: 3-D DESIGN: TECH + FORM + FASHION

This course offers innovative studio projects in 3-D design, architecture, contemporary sculpture, fashion and apparel. The relationship between form and function and the visualization of concepts are fundamental for each studio project. Students learn three-dimensional rendering and building techniques to construct functional artworks using cardboard, wire, found objects, plastic and wood. The 3-D printing studio offers students the opportunity to design and print objects using cutting-edge technologies. Re-use and sustainability are emphasized throughout the term. Projects include sneaker/shoe modeling, 3-D font design, bag and apparel design, team projects, process sketches, preliminary models and patterns, and product prototyping. 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 a smart, vibrant art objects. **In lieu of textbooks, there is a materials fee of \$155.**

ART205: PHOTOGRAPHY I: THE CREATIVE EXPERIENCE

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 work flow management; online portfolio maintenance; Photoshop techniques and inkjet printing methods. Students will also develop skills of critique 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 make images that start conversations. Throughout the term, student photographers develop a vibrant portfolio based on a series of thematic photo explorations including portraiture, abstract, minimalism, studio lighting and fashion. *All other materials are supplied via the studio fee.* **In lieu of textbooks, there is a materials fee of \$180.**

ART206: PRINTMAKING I: POP ART + 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 \$155.**

ART208: STUDIO PROJECTS IN DRAWING + PAINTING

In and out of the studio, 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 explore 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, charcoal, pastels, 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 portraits, landscapes, the Exeter campus, studio objects, film stills, design and related sketchbook work. Students learn a variety of contemporary drawing techniques on different surfaces, construct their own canvas surfaces and synthesize important concepts that connect drawing to painting. 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 drawing 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. The course provides students with the opportunity to be fluent in both studio mediums, demonstrated in a substantial and vibrant portfolio. **In lieu of textbooks, there is a materials fee of \$155.**

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: Art 202. Offered: winter and spring terms. In lieu of textbooks, there is a materials fee of \$95.*

ART403: ADVANCED PROJECTS IN 3-D DESIGN

This course offers the opportunity to investigate 3-D studio projects in apparel design, 3-D printing, product prototypes, sculptural models, and 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 pop-up exhibit. A strong emphasis is placed on process and personal vision, and students serve as peer critics throughout the term. 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: Art 203. Offered: winter and spring terms. In lieu of textbooks, there is a materials fee of \$155.*

ART405: ADVANCED PHOTOGRAPHY: EXPRESSIONS IN DIGITAL MEDIA

Advanced Photography is designed to challenge students to go beyond technical skills and photographic principles to establish a 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 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. All other materials are supplied via the studio fee. *Prerequisite: Art 205. Offered: winter and spring terms. In lieu of textbooks, there is a materials fee of \$180.*

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 pop-up show of selected prints from the term. *Prerequisite: Art 206. Offered: winter and spring terms. In lieu of textbooks, there is a materials fee of \$155.*

ART408: ADVANCED PROJECTS IN DRAWING + PAINTING

This 2-D studio intensive provides the exciting opportunity to pursue more-individualized works on paper, canvas and other surface options. 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 large-scale 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: Art 208. Offered: winter and spring terms. In lieu of textbooks, there is a materials fee of \$155.*

ART409: ART NOW: GLOBAL VISUAL CULTURE

This class studies contemporary approaches to art making 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 art-making processes; for instance, a contemporary artist might use nontraditional tools and materials such as a 3-D 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: Art 409 does not satisfy the studio arts requirement.*

ART500: ADVANCED STUDIO PROJECTS: PORTFOLIO + PROCESS

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 3-D 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 400-level studio course. Offered: fall and spring terms. In lieu of textbooks, there is a materials fee of \$155.*

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 ponder where Western culture came from and what it is now. 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 entitled *Ludus* and are in the process of writing an introductory Greek textbook entitled ΑΓΩΝ (anticipated in fall 2017). 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 enrollment in Classical Greece (HIS203) and Roman History for Latin Students (HIS314) and participation in the many opportunities to experience antiquity first-hand, such as the Spring Study Tour in Rome, the Winter Term in Rome and the Summer Archaeology Programs in France, Italy and Greece.

■ Classical Diploma

The Classical Diploma is awarded to students who successfully complete Greek 431 and Latin 611 or Latin 530. Students must take the last course in the sequence of courses in each language at the Academy in its program offered in Exeter, NH. The standard expectation is that students take 13 terms of Greek and Latin as counted by Academy 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 Greek 431 and Latin 531. 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 take Greek as uppers.

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. Greek is recommended only for students who have a thorough preparation in the grammatical structures of Latin or another inflected language.

Students may gain admission to any course above the Greek 411/421/431 sequence by taking qualifying examinations for each respective upper-level course.

GRK411/421/431: ELEMENTARY GREEK — INTENSIVE

This introductory sequence in the study of ancient Greek moves at an accelerated pace to provide students with the basic vocabulary, structure and grammar of the Greek language. In the spring term, some reading is done from Herodotus, Lysias or Xenophon. *Open to lowers, uppers and seniors (juniors with 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 Greek 511: Greek 431. 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 acknowledgements of ignorance.

Prerequisite for Greek 521: Greek 511. 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 Greek 531: Greek 521. 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 Greek 611: Greek 531. 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 Greek 621: Greek 611. 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 Greek 631: Greek 621. 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: Greek 631.*

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 Latin 210: Latin 130. 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 Latin 310: Latin 230. 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 non-elite Romans, we hope to circumvent the bias of our sources in order to gain a fuller understanding of Roman society. *Prerequisite for Latin 320: Latin 310. 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 Latin 400: Latin 320. 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 Latin 401: Latin 220 or Latin TR2 with permission of the department. Meets during the reserve format. Offered: spring term.*

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 Latin 510: Latin 400.*

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 Latin 511: Latin 401.*

COURSE SEQUENCES IN LATIN 230 ▶ 310-320-400

110-120-130 ▶ 210-220 ▶

401 ▶ 511-521-531

After this graduation requirement level, various Latin and Greek courses are available to students wishing to go further.

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 Latin 611: Latin 531, or Latin 530 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 Latin 621: Latin 611. 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 Latin 631: Latin 621. 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: Latin 631.*

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 word-play. 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 light-hearted 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.

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 ILIAD

The literature of ancient Greece and Rome has been received, resisted, used and abused by every culture that followed. Homer, who died more than two thousand 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, and 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.

The case study for spring 2018 is Homer’s *Iliad*, the oldest work of Western literature and perhaps its best. It is, above all, the epic of war – a constant of the human condition. The 20th century has been notable for the scale and brutality of its world wars, and 21st-century America is currently engaged in two wars in Iraq and Afghanistan that have no end in sight. So we will start by reading Caroline Alexander’s English translation of the *Iliad* and then jump to modern retellings and re-imaginings in such genres as poetry (*War Music* by Christopher Logue), drama (*An Iliad* by Lisa Peterson and Denis O’Hare), nonfiction (*Achilles in Vietnam* by Jonathan Shay), philosophy (*The Iliad or The Poem of Force* by Simone Weil), science fiction (*Ilium* by Dan Simmons), young adult fiction (*The Song of Achilles* by Madeline Miller), and cinema (*Troy* directed by Wolfgang Petersen). 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. Offered: spring term.*

Computer Science

The core of Computer Science at Phillips Exeter Academy 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, re-evaluate 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.

CSC405/407: 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. Co-requisite 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. Co-requisite of MAT12T or higher.*

CSC308: DATA-DRIVEN AND INTERACTIVE WEB DEVELOPMENT

This course is a natural progression from CSC208 and will focus on more advanced topics used to create interactive content for the Web. Topics covered will include database design, sessions, and real-time interaction. It is a project-based course where students will learn by writing software and building working web applications. In the process they will become comfortable with current, professional programming frameworks including the MEAN stack (MongoDB, Express, AngularJS, NodeJS). *Prerequisite of 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. Co-requisite of MAT12T or higher.*

CSC407 AND PHY315: INTRODUCTION TO SCIENTIFIC MODELING THROUGH PHYSICS AND COMPUTER SCIENCE

We understand nature through the observations we make of the natural world and the models we build to understand those observations. Computers play an increasingly vital role in constructing these models and in presenting them to scientific and lay audiences. The algorithmic thinking required to write computer programs parallels the modeling done in science. This joint course will explore model building and software development through physics and culminate in a final project in which the students will develop a computer model for some physical phenomenon. The physics content of the course will cover the Newtonian mechanics

concepts of motion, force and momentum. The computer science content of the course focuses on the object-oriented programming paradigm, with important concepts covered in this course including: algorithmic thinking, classes, inheritance and polymorphism.

Prerequisites: Open to lowers, uppers, and seniors (juniors with departmental permission). For lowers, uppers, and seniors, the prerequisite is successful completion of Mathematics 230. Students who have taken PHY210/310 or CSC405 may not take this course. Students who take this course will continue to Physics 220, 221 or 320 in the winter term. This course is scheduled for two formats and students receive two term credits. Students must register for both CSC407 and PHY315. Meets during the reserve format. Offered: fall term.

CSC505: DATA STRUCTURES AND ALGORITHMS

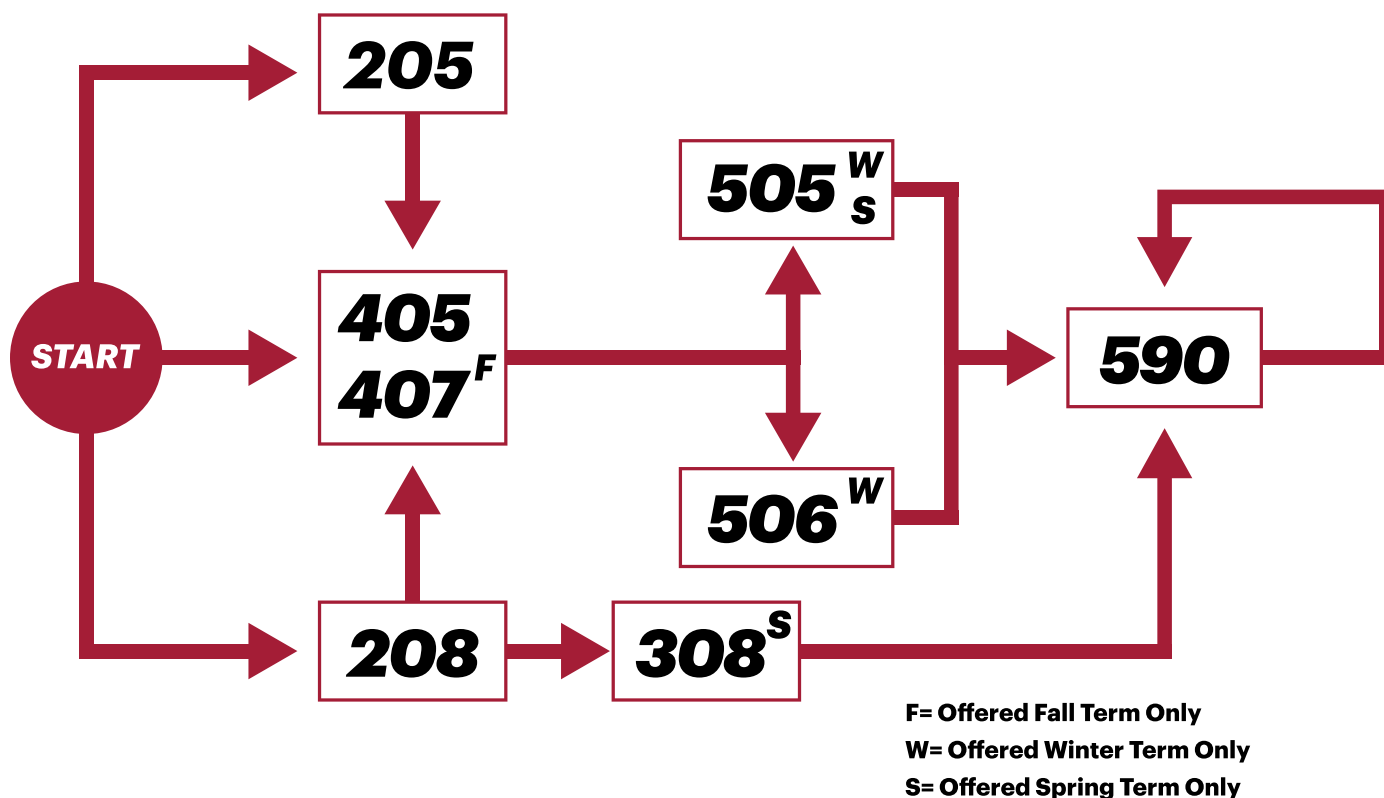
This course examines classic data structures: lists, queues, stacks, binary trees and graphs, and hash tables. Standard algorithms for sorting and searching will be studied, and complexity analysis performed using big-oh notation. Students also develop a deeper understanding of software engineering principles as the course emphasizes reuse and generic programming. *Prerequisite: CSC405 or CSC407 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 CSC407 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.*



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 well-being. 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 Exeter 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 Exeter 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 430) are differentiated primarily by the increasing complexity and sophistication in the writing we expect and in the works we read. In their senior year, students choose from a range of electives offering depth of study in fall and winter and breadth of study in spring. At every level, students are likely to write in various forms and to read works representing diverse voices and experiences.

Each year, the Academy 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 Exeter. Students 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 produce personal narratives throughout their four years at Exeter but focus heavily on this genre during their first two years). Students work to produce a vivid sense of place and create convincing characters in their narratives, and hone their skills as readers and editors of one another's work through frequent writing workshops. Special emphasis is also placed on student 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, in short in-class writing assignments or online discussion boards. In all these ways, the English 100/210/220 sequence prepares students for the increasingly demanding work they will do — as readers, as discussion partners, as writers — in future English courses. Students read a play by Shakespeare in the spring term.

■ Lower Year

ENG310/320/330: 10TH-GRADE ENGLISH

In this sequence of courses, readings introduce broader and more complex personal and social issues. The writing assignments — ranging from personal narratives and personal essays to letters, editorials, poetry projects and responses to the readings — encourage awareness of audience and exploration of perspective. In the spring term, students are likely to produce a sustained piece of writing based on research into their family history. Students read a play by Shakespeare in the spring term. A student normally has the same teacher for the winter and spring terms.

■ Upper Year

ENG410/420/430: 11TH-GRADE ENGLISH

In this sequence of courses, written assignments tend to shift from personal narratives and essays to various forms of analysis 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 winter term, most students produce a piece of narration and exposition based on an observation and interview. Students read a play by Shakespeare in the spring term.

■ Senior Year

The English Department offers a variety of elective courses to seniors. Course offerings may focus on genres, literary periods, the history of ideas, individual authors, or writing. Seniors choose English courses during the registration period in the spring prior to their senior year, at which time they may enroll in three courses. Seniors may enroll in additional elective courses upon the announcement at the end of the registration period.

■ Senior English Fall Term:

SENIOR SEMINARS IN WRITING: GENRE FOCUS

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.

ENG502: Short Fiction

ENG503: Poetry

ENG504: Drama

ENG505: Creative Nonfiction

ENG506: Multi-genre *

* “Multi-genre” is not a catchall for all genres. As Tom Romano explains in his multi-genre instruction book, *Fearless Writing*, a multi-genre project is comprised of a carefully choreographed range of genres and subgenres, each constituent piece self-contained, making a point of its own, yet connected to the others by theme or topic and sometimes by language, images, and content. 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 English Fall Term, Stratford Program:

ENG592: SHAKESPEARE IN STRATFORD

This course is the centerpiece of the Stratford Program. Students attend performances of the plays produced by the Royal Shakespeare Company (RSC) in Stratford-Upon-Avon, Shakespeare’s birthplace. The reading list is designed around the offerings of the RSC. In addition to discussing the plays at the table, students explore and sometimes act out scenes in workshops offered by actors and directors at the RSC. Writing assignments are analytical in nature: close readings of the texts, director’s logs about dramatic choices, and journal reflections about the texts and performances.

ENG593: LITERATURE IN STRATFORD

One of the advantages of the Stratford Program is the opportunity to study literature in the very places that inform the settings, themes, characters and concerns of the texts. The specific topic for this course varies from year to year and is dependent upon the interests of the Resident Director and the travel plans of the group. Every effort will be made to visit the places students read about in the texts. Past topics have included Literature of Place, Romantic Poetry, Contemporary English Fiction, 19th-Century English Novels, Survey of English Poetry and Wordsworth. Writing assignments will be analytical in nature: close readings of the texts, journal reflections on the texts and explorations of the role of place in the imaginative life of a text.

■ Senior English Winter Term:

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. Students will also undertake a sustained writing project in the winter term. For most, this will be a Senior Meditation, the English Department’s capstone assignment. Students taking two winter English courses

may choose to write a Meditation in one and complete projects of similar scope in the other.

ENG542: Jane Austen

ENG543: James Baldwin

ENG544: Samuel Beckett

ENG545: Junot Díaz

ENG548: Louise Erdrich

ENG549: William Faulkner

ENG552: Kazuo Ishiguro

ENG555: Cormac McCarthy

ENG556: Herman Melville

ENG558: Toni Morrison

ENG559: Viet Thanh Nguyen

ENG560: Salman Rushdie

ENG562: Zadie Smith

ENG563: Derek Walcott

ENG564: Virginia Woolf

■ Senior English Spring Term:

TOPICS IN LITERATURE

Seniors are invited to broaden their literary study in the spring, choosing from a wide variety of courses that take thematic, topical, regional and interdisciplinary approaches to literature.

ENG566: GRAPHIC NARRATIVE/LITERARY COMICS

In this course we will explore the burgeoning literary phenomenon often called the “graphic novel.” What happens to narrative when it unfolds in a hybrid form that joins image to text? What can this verbal-visual medium do that other literary media can’t? Is the form better suited to certain topics and modes of expression than to others? How do we read a text in which two narrative tracks (one verbal, the other visual) interact? Our readings will be drawn from the work of such artists as Will Eisner (*A Contract with God*), Art Spiegelman (*Maus; In the Shadow of No Towers*), Chris Ware (*Jimmy Corrigan*), Joe Sacco (*Palestine; Safe Area Gorazde*), Marjane Satrapi (*Persepolis*), Daniel Clowes (*Ghost World*), Alison Bechdel (*Fun Home*) and Julie Doucet (*My New York Diary*). Students will write short weekly papers and complete a substantial project of their own design.

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. Dubois, Henry James, Joseph O’Neill, Zia Haider Rahman, Zadie Smith, Marilyn Robinson, Viet Thanh Ngyuen 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, Roxanne 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: NOVELS INTO FILM

Students read novels and see their transformation into films. Through these comparisons and a short study of key film techniques, students learn how to “read” a film. The class chooses works such as *A Clockwork Orange*, *Children of a Lesser God* and *Apocalypse Now* from 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. *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 engage in hip-hop as a modern day blues, 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 sociohistorical-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.

ENG575: LITERATURE OF THE AMERICAN WEST

“Being footloose has always exhilarated us. It is associated in our minds with escape from history and oppression and law and irksome obligations, with absolute freedom, and the road has always led west.” (Wallace Stegner, “The American West as Living Space.”) From the 17th-century transatlantic quest to build a perfect “city upon a hill” to the 19th-century push across the plains toward the Pacific, the western frontier has conjured utopian visions of freedom, self-redefinition, moral improvement and economic opportunity. Pop culture images and icons (the self-reliant cowboy, the endless open vistas, the rush for gold) reflect and reinforce this myth. The reality is, of course, more complex. The move west also brought environmental degradation, massive urbanization, cultural clashes and even genocide. This course will focus on Western fiction from the last 50 years that explores tensions and intersections between the myth and the reality. We will consider a variety of voices, from those who pushed westward to those dispossessed. Readings will offer not a comprehensive survey but a cross-section of voices, possibly including Sherman Alexie, Annie Proulx, Cormac McCarthy, James Welch, Leslie Marmon Silko, Wallace Stegner, Edward Abbey, Gary Snyder, Louise Erdrich, Willa Cather, Maxine Hong Kingston, Mark Twain, N. Scott Momaday, John Steinbeck and Jimmy Santiago Baca. Students will write analytical and reflective essays with occasional forays into fiction and poetry.

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.

ENG577: QUEER LIT

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; Paul Monette’s memoir *Becoming a Man*. Films may include *The Wedding Banquet*, *The Incredible 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 re-read 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.

ENG580: PASSING

Passing has a rich history in America’s culture and literature: black for white, gay for straight, Jew for gentile. So often we think of passing as negative, as assimilationist, but in this course students will explore the many valences of the practice and develop an understanding of what passing reveals about our society and our own identities. Using Brooke Kroeger’s *Passing: When People Can’t Be Who They Are* as a nonfiction foundation, we will then delve into literary examples, looking at race through Danzy Senna’s *Caucasia* or Helen Oyeyemi’s *Boy, Snow, Bird*, and considering gender and sexuality through Bill Konisberg’s *Openly Straight* or Ariel Schrag’s *Adam*. Nonfiction reading might include Henry Louis Gates’s “White Like Me,” Sander Gilman’s “The Jewish Nose,” or selections from Gloria Anzaldua’s *Borderlands*. Students will write an analytical essay in which they apply some of Kroeger’s theoretical framework to one of the novels read in class. Other writing will ask students to explore the idea of passing in their own lives, making thematic and personal connections to the literature.

ENG582: SCIENCE FICTION AND FANTASY

Whether it is Tolkien's *Lord of the Rings* or H.G. Wells's *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, including looking at how fantasy provides commentary on race, gender and class through works such as Octavia Butler's *Fledgling* or Ursula K. LeGuin's *The Left Hand of Darkness* as well as considering 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 Meville 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 ever-elusive transformation? This class will provide students opportunities not only to write and reflect upon their own travels through journal-based 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* (Alaine de Boton), *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, Kearns-Goodwin, 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 film makers.

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 reading 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 K-pop industry. Now that the nation has the attention of the globe, exports are beginning to include more than passing fads and cutting-edge cell phones. In May 2016 Han Kang's *The Vegetarian* won the Man Booker International Prize for fiction, and in 2011 Kyung-sook Shin's *Please Look After Mom* appeared on the best-seller 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 bi-lingual 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: CREATIVE WRITING WORKSHOP

The spring term *Creative Writing Workshop* offers students the chance to work in any genres they choose. An awareness of issues pertaining to craft and aesthetics — and to the practice of peer editing — will be central to all of the assignments in this workshop-structured course.

ENG589: JOURNALISM

In this course, students will read and discuss a range of reportage to explore questions of objectivity and subjectivity, and to learn about processes of verification in the newsroom. To frame the discussion, students will define and establish the principles of both old journalism and new journalism, while applying these principles in pieces they craft about culture, whether past, present, or here at Exeter. Writing assignments may include reviews, podcasts, editorials or news features. At the term's end, students will have been initiated to the cultural importance of the media and mass communication systems and the long and winding journalistic tradition of reportage.

ENG590: SELECTED TOPICS IN ENGLISH

This course is offered at student or departmental initiative and may change from year to year. In 2017-2018 the following course will be offered:

ENG590: REIMAGINING THE CLASSICS: HOMER'S *ILIAD*

The literature of ancient Greece and Rome has been received, resisted, used and abused by every culture that followed. Homer, who died more than two thousand 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, and 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.

The case study for spring 2018 is Homer's *Iliad*, the oldest work of Western literature and perhaps its best. It is, above all, the epic of war — a constant of the human condition. The 20th century has been notable for the scale and brutality of its world wars, and 21st-century America is currently engaged in two wars in Iraq and Afghanistan that have no end in sight. So we will start by reading Caroline Alexander's English translation of the *Iliad* and then jump to modern retellings and re-imaginings in such genres as poetry (*War Music* by Christopher Logue), drama (*An Iliad* by Lisa Peterson and Denis O'Hare), nonfiction (*Achilles in Vietnam* by Jonathan Shay), philosophy (*The Iliad or The Poem of Force* by Simone Weil), science fiction (*Ilium* by Dan Simmons), young adult fiction (*The Song of Achilles* by Madeline Miller), and cinema (*Troy* directed by Wolfgang Petersen). 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. Offered: spring term.*

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 Academy and beyond.

Our courses challenge students to stretch their understandings of health issues 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 health choices today and in the future, we provide opportunities for students to examine their values and attitudes, as well as develop critical thinking, decision-making, self-advocacy, and interpersonal skills.

HHD110/120/130: TEEN HEALTH MATTERS FOR JUNIORS

In this year-long, age-appropriate course, required of all juniors, students will explore together a variety of health issues, including, but not limited to, physical and psychological self-care; alcohol and other drugs, as well as addictive substances and behaviors; nutrition and fitness; mental health; relationships; and sex and sexuality. 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. Two single class periods per week in the fall and winter terms, which may include reserve periods. One single class period per week in the spring term, which may be a reserve period. In addition to the class period in the spring term, limited assignments will be given each week. *See note below.*

HHD210/220/230: TEEN HEALTH MATTERS FOR LOWERS

In this year-long, age-appropriate course, required of all new lowers, students will explore together a variety of health issues, including, but not limited to, physical and psychological self-care; alcohol and other drugs, as well as addictive substances and behaviors; nutrition and fitness; mental health; relationships; and sex and sexuality. 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 and winter terms, which may include reserve periods. One single class period per week in the spring term, which may be a reserve period. In addition to the class period in the spring term, limited assignments will be given each week. *See note below.*

Note: The Health Option

Each term of Health and Human Development 110/120/130 and 210/220/230 provides 1/3 credit, giving a junior or new lower one extra credit at the end of the year. While enrolled in these Health and Human Development courses, students may use this credit to reduce their load in a given term of the current year, provided they do so by the week following the midterm reporting period. Students need to consult with their advisers and the Dean of Academic Affairs to utilize this option.

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 modern-day 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 well-being. *Open to uppers and seniors. Offered: winter term.*

HHD504: THE HUMAN PURSUIT OF EUPHORIA

This course will explore the use of mind-altering 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 Experiences* by Mihaly Csikszentmihalyi; and *Forces of Habit* by David Courtwright. *Open to seniors. Offered: winter term.*

HHDSTR: CROSSROADS: YOUR FUTURE, YOUR HEALTH

Seniors have much to look forward to, but also have many challenges facing them as they complete their work at PEA. In this seminar 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: spring term. Note: Seniors who will be enrolled in an off-campus program during the spring term may enroll in HHDSTR in the 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 Exeter 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, year-long 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.

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 courses outside the Western tradition: 200, 202, 205, 206, 207, 208, 305, 306, 307, 308, 502, 556, 558, 560, 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 Academy 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 300-level history course. Offered: fall term.*

HIS203: CLASSICAL GREECE

This course examines the culture, politics and society of the Greek city-states 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 300-level 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 300-level 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 300-level 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 Academy's archaeological and ethnographic holdings to gain a fuller appreciation of this fascinating subject. *Open to juniors and lowers who have not taken a 300-level history course. Offered: spring term.*

HIS207: CHINA: THE LAST DYNASTY ♦

An advanced civilization reaches its peak. Failing to notice the early warning signs of a seismic global shift, the country's leaders engage in a series of costly military adventures, and then watch helplessly as the nation becomes overextended and implodes. This is the story of Qing dynasty China (1644-1911). Steeped in Confucian tradition, Qing emperors had no answer for the challenges presented by Western religion, science and warfare. In this course, we will examine the soul-searching that accompanied China's slow decline, from its first contact with Christian missionaries in the 17th century to the death throes of the imperial system in 1911. Along the way, we will examine the choice China faced — tradition or modernization — and the many people who represented the range of options. Our sources will include biography, memoir, film and literature. *Open to juniors and lowers who have not taken a 300-level history course. Offered: spring term.*

HIS208: JAPAN: TRADITION TO MODERNITY ♦

After two and a half centuries of political order, social stability and diplomatic isolation, the Tokugawa government of Japan was threatened by internal turmoil and external threats from the United States and Europe. Some Japanese encouraged reform. Others, particularly radical samurai, demanded a return to conservative values under the slogan "Revere the emperor, expel the barbarian." At stake for Japan was its future. Would it be tradition or modernity? Which values mattered most? What did it

mean to be Japanese? How Japan developed its political and social traditions from 1600 to 1900 and reacted to crisis, ultimately in the form of the Meiji Restoration in 1868, will be the story of this course. Students will have an opportunity to read firsthand accounts from the Japanese who struggled to retain or remake a nation. *Open to juniors and lowers who have not taken a 300-level history course. Offered: winter term*

■ Intermediate Courses

HIS302: EARLY MODERN EUROPE, 1350-1660

The centuries following the Black Death saw the beginnings of modern Europe. The 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, 1660-1800

Beginning with the reign of Louis XIV, students examine 18th-century 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, 1800-1914

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 pre-contact 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.*

HIS306: ART AND THE STATE ◆

This course examines how history — and its conflicts — can be understood through the artistic objects that societies create. This course examines art from the 19th and 20th centuries, investigating how artistic creation has shaped and been shaped by diverse nations and cultures. Focusing on how visual art, music, architecture and urban planning interact with the world around them, we will analyze both how states support, mobilize and utilize art and architecture to communicate power and to construct cultural identity, and also how art can enable critique of the state. Students will use textual, visual and audio sources as they engage such questions. Topics of discussion will include: the construction of capital cities and royal courts to communicate political authority and cultural identity; the function of artistic objects as propaganda and as protest during times of conflict; and finally, specific sites of contestation that challenge established order and meaning. *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 postindependence 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.*

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.*

■ Advanced Courses

HIS410: UNITED STATES HISTORY, COLONIAL ORIGINS TO 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. 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: History 410 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: History 420 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.*

■ 500-Level Courses

Some courses numbered in the 500s may meet just three times per week, as determined by the individual instructor.

HIS502: GLOBAL TOPICS IN WOMEN, GENDER AND SOCIETY ♦

This course explores the role of gender in shaping humans' identities and power structures in several 20th-century 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, 1890 TO 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: fall 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. *Open to seniors. Offered: winter term.*

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 APPROACH

This course is intended to introduce and develop a student's understanding of three interrelated but analytically distinct phenomena: violence, war, and peace. By utilizing various disciplinary branches, it discusses the history of these subjects across the globe focusing on both ancient and modern history. Students are introduced to fundamental constructs about the relationship of justice to violence and warfare examining the concepts of *jus ad bellum*, *jus in bello* and *jus post bellum*. In order to develop a full appreciation of this ethical construction, students will be introduced to historical studies and primary documents that have emerged out of the fields of anthropology, ethics, philosophy and sociology to understand the history of how humans, tribes, and nations have understood their rights in killing other human beings. More recent studies, such as the Seville Statement on Violence and its related critiques, help us to explore explanations of violence as they emerged out of the developing discipline of psychology. Implementing non-Western perspectives, this course challenges students to think systemically about peace beyond commonly held expressions that it is simply an interim between wars. These studies coupled with readings from current specialists in the field help to frame a discussion that is highly relevant to today's world: Are humans naturally violent? How do societies avoid violence and garner peace? What role does technology play in shaping violent behavior? Can justice be garnered through the use of violent means? To what degree is peace a realistic possibility in a highly globalized world? Rather than treating these subjects chronologically, this course develops a thematic orientation to these topics. Readings will be supplemented by occasional film studies throughout the term. Finally, through a selected number of case studies, students will examine diplomatic issues and international systems that lend themselves to fostering war and peace in modern times. *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. *History 550 cannot be substituted for the required 400-level 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 in-depth understanding of the historical background and present-day 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 will provide an added dimension to the course. *History 553 cannot be substituted for the required 400-level U.S. requirement or the non-U.S. history requirement. Open to seniors. Offered: spring term.*

HIS554: IMPERIAL RUSSIA

This course surveys Russian history to the beginning of the collapse of the Tsarist regime in World War I. After studying autocracy and orthodoxy in Old Russia and westernization under Peter the Great, students focus on the 19th century. Emphasis is placed on the impact of the French Revolution and the Napoleonic Wars, the reaction under Nicholas I, the emergence of the revolutionary tradition, and the rise of Marxism. Special attention is given to Russian literature. *Open to seniors. Offered: winter term.*

HIS555: 20TH-CENTURY RUSSIA

This course is an introduction to contemporary Russia, beginning with a study of the revolutions of 1917. Topics studied are Marxist-Leninist theory in practice, Stalin's dictatorship and the rise of Russia as a world power, Russia's role in World War II, the Cold War, change and reform from Stalin through Gorbachev, and the period following the collapse of the Soviet regime. *Open to seniors. Offered: spring 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. *Offered: spring term.*

HIS560: THE GLOBAL COLD WAR — NATIONALISM CONFRONTS IMPERIALISM ◆

The Cold War has usually been discussed as a conflict of the two superpowers after World War II — the United States and the Soviet Union — and as an ideological conflict between capitalist democracy and communism. More recently, historians have begun to imagine the Cold War not merely as a two-sided conflict, but rather as a global tension that affected nearly every nation of the world. The Cold War coincided with the end of colonization and height of independence movements in the “Third World,” and as nations struggled to gain freedom from former imperial powers, they also struggled to remain independent from (or form alliances with) the remaining global superpowers. The United States and the Soviet Union also competed to gain allies among newly formed countries, with each trying to halt the spread of the other’s ideology and influence. As a result, the Cold War was “fought” on a world stage, with “proxy wars” occurring in a number of countries throughout the globe, and Western powers struggling for influence within nationalist independence movements. No nation was unaffected by the Cold War. This course explores the history of the Cold War through this global lens. Particular areas of focus will include China and Southeast Asia; decolonization; and independence movements in Africa, the Middle East, Latin America, and Eastern Europe. Students will have the opportunity to research the impact of the Cold War on a particular country of their choice. *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 ever-increasing 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 20th-century 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: THE MAKING OF MODERN JAPAN ◆

This course traces the development of Japan from an isolated country under feudalism to a modern, industrialized country. The story begins with the Meiji Restoration and westernization. Students then study how Japan’s movement to ultranationalism paved the way to Pearl Harbor and Hiroshima. Post-Occupation Japan is then studied topically: economic development, social change, political issues and Japan’s international role. *Open to seniors. Offered: fall term.*

HIS577: MODERN AFRICA ♦

This course examines the causes and effect of the crisis of state and development that has engulfed Africa since independence. The course begins with a critical look at the impact of the colonial heritage. Students then study the African and Pan-African nationalist movements for liberation. Next, students undertake an in-depth inquiry into the nature of the crisis of state and development in Africa, and the various attempts at mitigation. The course concludes with an evaluation of the theoretical considerations for a way out of the crisis. *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: PERSECUTING DEVIANCE: A HISTORY OF DEMONS, SORCERY AND WITCHCRAFT, 1100 TO 1700 ♦

This course introduces students to the phenomena of witchcraft, sorcery, magic and voodoo. Beginning in Babylon, the course orients students to an understanding of these subjects as practiced in the premodern world. With this conceptual foundation, students gain an understanding of the categorization of witchcraft and other questionable or deviant practices during the Middle Ages through the Age of Enlightenment. As these forms of Western thinking spread throughout the globe on the waves of imperialism, Europeans encountered practices of indigenous cultures that they classified as taboo or dangerous. Buttressed by a cosmic view of good and evil, Westerners sought to persecute such behaviors, attributing them as manifestations of the devil's minions. This course exposes students to the theoretical debates and historical contexts where violent exchanges often took place in regions such as Africa, Asia and Latin America. Among the topics considered are the relationship of institutional power to societal beliefs in the supernatural; social constructions of purity, taboo and danger; gender roles and behavioral norms; categories of magic; curative practices; and the categorization of "madness" or mental disorders. Our study will conclude with an examination of the notorious events of 1692 that occurred in nearby Salem, Massachusetts, an episode that continues to fascinate scholars and challenge our thinking about the "deviant" past. *Offered: fall term.*

HIS590: SPECIAL TOPICS IN HISTORY

The topic of this course will change year to year. The special topics course for 2017-18 will be:

HIS590: LGBT HISTORY, POLITICS AND CULTURE

Until relatively recently, individuals who might currently identify as lesbian, gay, bisexual, or transgender have lived hidden lives, rarely expressing their sexual or gender identities to the public. The past 30 years have seen a sea change in American cultural understanding and acceptance of LGBT identities and same-sex relationships. However, the history of LGBT individuals has rarely been considered in the broader narrative of American history. This course will study the history of the development of gay, lesbian, and transsexual/transgender identities, the fight for gay rights, and the evolution of social and cultural norms that have allowed for new acceptance of same-sex marriage and transgender individuals. The course will focus on 20th century America, but will also consider same-sex sexuality in other countries and time periods, and will also include readings on current topics in LGBT politics and culture. *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 publishable-length (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.*

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 well-reasoned presentation of results, is central to the process of learning mathematics, and that this learning happens most effectively in a cooperative, student-centered classroom.

We see the following tenets as fundamental to our curriculum:

- › that algebra is important as a modeling and problem-solving 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 computer-based and calculator-based activities be part of our courses;
- › that all topics be explored visually, symbolically and verbally;
- › that developing problem-solving 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 problem-centered rather than topic-centered. 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 Academy classes, mathematics is studied seminar-style, 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 seminar-table methodology and our problem-based 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.

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 200-level 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 three-term transition for students with three full years of high school mathematics. MAT31T and MAT34T are primarily for entering uppers.

MAT31T/32T provides a two-term transition into our 300-level 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 two-term transition as a bridge between our 300- and 400-level 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 three-term, 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

This is a year-long 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 problem-solving curriculum.

MATTR4 is a year-long 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 problem-solving 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 problem-solving 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 200-level courses are geometry courses tied to algebraic processes. Students investigate lines, polygons and vectors, in both two and three dimensions. Right-triangle 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 300-level 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 MAT410, MAT411, 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-trimester 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.*

MAT40M: MATHEMATICAL MODELING AND APPLICATIONS

In this course, students explore the potential of mathematics for formulating, analyzing and interpreting models in order to solve problems. They study and create models, analyze the assumptions in setting up these models and test the models against real-world data. Students use computers as a tool, although no special computer experience is necessary. Data analysis, graphs,

spreadsheets, computer models and geometry are some of the modeling tools that are utilized. *Prerequisite: MAT330 or its equivalent. Offered: fall and winter terms.*

MAT40S: INTRODUCTION TO STATISTICS

This one-term 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 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. One-variable topics include graphical representations of data, measures of central tendency and measures of variability. Two-variable 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 real-world 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 non-parametric 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 decision-making. 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 in-depth studies of probability theory. Student-designed 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 two-term sequence re-examines 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.*

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.*

MAT700: FOUNDATIONS OF ABSTRACT MATHEMATICS

This course constitutes a bridge between calculus and theoretical, proof-based 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: fall and spring terms.*

■ 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 non-Euclidean geometry, fractals, and game theory.

MAT690: SELECTED TOPICS

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.*

MAT790: SELECTED TOPICS

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.*

Although the Mathematics Department at PEA makes frequent use of tablet apps in the Exeter mathematics curriculum, students still need to have a hand-held graphing calculator. Calculators are also frequently used in science classes and on standardized tests. If a new student already has a graphing calculator, it is not necessary to purchase another calculator. For any student who does not have a graphing calculator, the Mathematics Department recommends purchasing a TI-NSPIRE CX CAS graphing calculator.

Modern Languages

The courses in modern languages aim to develop all the basic skills — aural comprehension, speaking, reading and writing — and to provide students with an understanding and appreciation of a culture other than their own. The foreign language being studied is used in the classroom from the beginning. Students acquire a working knowledge of essential grammatical structures and learn to speak and understand the language; at the higher levels, they develop their ability to read, analyze and discuss literary works, contemporary texts and films.

Entering students may wish to continue studying a language begun at their previous schools. Placement will be done by evaluating previous experience in the language and may include a test and/or interview. On the other hand, many students begin a new foreign language at this point in their education. Because daily assignments in all classes are limited to a fixed time scheme, no language entails more work than another, and the range of grades that students receive is the same in all languages offered by the department. Consequently, students should choose the language that interests them the most.

The study of Chinese, French, German, Japanese, Russian or Spanish may be begun in any year. A two-term accelerated sequence beginning in the winter is offered in Japanese; this accelerated Japanese course covers the work of the first year in two terms. The accelerated two-term sequence in Italian and the three-term sequence in Arabic are for seniors only. College-level accelerated courses offered in German and Russian cover the material of two years in one. They are especially appropriate for incoming uppers and seniors who seek a solid preparation in a foreign language before going to college.

As technology plays a greater role at the Academy, the Modern Languages Department has integrated authentic and computer-based materials into its curricula. All language classes make use of multimedia software developed by faculty members in the department; other classes use commercially produced programs such as podcasts, blogs and materials readily available on the internet to supplement the department's teaching approach to bring authentic and relevant resources into the classroom. Email and computerized assignments are a regular part of the learning experience in the department.

All students are encouraged to consider the study of more than one foreign language while at Exeter. Seniors who have exhausted all the offerings in a particular language may petition the department for a field course after having secured the willingness of an instructor to serve as teacher of the course. The department reserves the right to approve or reject any field course proposal. Staffing constraints may override the worthiness of a particular proposal. Written permission from the department chair is required to register for a field course.

The Department of Modern Languages encourages students to participate in the Academy's long-established one-term study abroad study programs with host family homestay. For each language leading to the diploma requirement in modern languages (Chinese, French, German, Japanese, Russian and Spanish), Exeter's term abroad program can be seamlessly incorporated into a student's curriculum and further enhance their global awareness and linguistic readiness.

Note: All modern language courses through Language 231, with the exception of the accelerated Italian course, meet during the reserve format. Studies in French 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 three-term 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). This sequence is an introduction to spoken Mandarin Chinese using the Pinyin system of Roman letters. Students learn to converse simply and are introduced to the writing of Chinese in traditional characters. Considerable oral practice and frequent written exercises lead students to a mastery of the grammar and the tones of Chinese. By the end of the second term, students have mastered about 300 characters and are reading simple Chinese character texts. Consideration is given to Chinese brush pen writing, art, history and other cultural aspects of modern China.

CHI210/220/230: INTERMEDIATE CHINESE

This sequence of courses is offered fall (CHI210), winter (CHI220) and spring (CHI230). This sequence continues the study of written and oral Chinese from the first year. The students are introduced to the writing of simplified as well as traditional characters, and progress to more-difficult readings and a broadening of vocabulary. Students read advanced beginner's texts written in both simplified and traditional characters. By the end of the first term, students have learned to use a Chinese dictionary; by the end of the third term, they can recognize 600 characters.

CHI111/221/231: ACCELERATED CHINESE

This sequence of courses is offered fall (CHI111), winter (CHI221) and spring (CHI231). This three-term 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.*

CHI310/320/400: ADVANCED CHINESE

This sequence of courses is offered fall (CHI310), winter (CHI320) and spring (CHI400). This sequence of three courses carries out a systematic review of grammar. Exercises are supplemented with extensive written work and reading. Active vocabulary is expanded by a variety of stories and poems in Chinese.

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 contemporary Chinese short stories and novels. Students also learn to read Chinese newspapers. This sequence explores a variety of topics, including advanced conversation, film and contemporary short stories. Course work is designed to increase skills in reading, analyzing and discussion. These three courses prepare students for the Advanced Placement exam in Chinese. *Prerequisite: Chinese 400 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 POST-IMPERIAL CHINESE LITERATURE (1919-PRESENT)

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 in-depth discussions, and write essays. *Prerequisite: CHI400 and permission of the department. Offered: spring term.*

CHI590: SPECIAL TOPICS

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 *Virgule*, *Rémi et le mystère de Saint-Péray*, *Un billet pour le commissaire* and other short readings.

FRE12T: TRANSITION FRENCH 1

For students who have had one or two years of French in junior high 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 French 13T 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 French 210 in the spring term. *Offered: winter term.*

FRE210/220/230: INTERMEDIATE FRENCH

This sequence of courses is offered fall (FRE210), fall and winter (FRE220) and winter and spring (FRE230). This sequence continues the study of spoken and written French begun in French 110/120/130 or French 12T/13T. The fundamental forms and structures are reviewed. The study of grammar is complemented by a program of modern readings: *Le Petit Nicolas* by Goscinny & Sempé; *Kirikou et la Sorcière* by Ocelot; *L'œil du loup* by Pénnac; and *Le Petit Prince* by Saint-Exupéry.

FRE310/320: ADVANCED FRENCH

This sequence provides a systematic review of French. Exercises are supplemented with extensive written work. Vocabulary and grammatical structures are developed through reading, discussion, and writing about literary works by such authors as Anouilh, Camus, Roblès and Roch Carrier. *Each course offered: fall and winter terms.*

FRE400: THE COLLISION OF WORLDS IN COLONIAL AND POST-COLONIAL FRANCOPHONE LITERATURE

This course will explore conflicting attitudes about history, politics, culture, and identity explicit and implicit in colonial and post-colonial 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. *Prerequisite: FRE320. Offered: winter and spring terms.*

Note: The following 500-level courses may be taken in any order after completion of French 400. It is recommended that students discuss 500-level 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 500-level 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.

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? Readings may include works by Montaigne, Voltaire, Le Clézio, Gide and Yasmina Reza. 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 French-speaking world. Materials may include essays, short stories, novels, radio programs, films, podcasts, newspapers and magazine articles. Readings may include Colette Fellous' *Avenue de France* and Alberto Toscano's *Critique amoureuse des Français*. 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. This course provides a special review for the AP French Language and Culture exam. Readings may include poems by Baudelaire and Mallarmé, and songs by Georges Brassens and MC Solaar. *Offered: spring term.*

FRE550: FRENCH THEATER

This course examines a variety of plays from Molière to Sartre, focusing on character interaction against the backdrop of playwright and the period. Possible authors might also include Racine, Giraudoux, Beckett or Ionesco. *Note: This course will be offered every other year. Offered: fall term. Not offered in 2017-2018.*

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. Offered: winter term. Not offered in 2017-2018.*

FRE553: GREAT NOVELS

For those students who want to spend a term with great French fiction as a mirror of its era; possible great choices might include Hugo's *Les misérables*, Camus' *La peste*, Flaubert's *Madame Bovary*, Duras' *Moderato cantabile*, Maupassant's *Pierre et Jean* and Stendhal's *Le Rouge et le noir*. *Note: This course will be offered every other year. Offered: spring term. Not offered in 2017-2018.*

FRE554: FRENCH HUMANISM

This course studies selected works by great French writers of the past and present, such as Rabelais, Montaigne, Molière, Voltaire, Gide, Sartre, and Camus, whose reaffirmation and defense of human dignity, or questioning of it, give them lasting significance. *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 FRENCH 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: SPECIAL TOPICS

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.

■ 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 German-speaking countries: Austria, Germany and Switzerland. Resources include texts, video, audio, and computer-based and Internet materials.

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 German-speaking 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. German 230 includes an examination of the German presence in the United States, and considers the contributions of German-Americans and German-American communities.

GER111/221/231: TWO YEARS IN ONE

This sequence of courses is offered fall (GER111), winter (GER221) and spring (GER231). This three-term 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 German 310 in the fall.

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 German-speaking 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 German-speaking 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: POST-HOLOCAUST WRITING

GER504: CURRENT ISSUES IN GERMAN SPEAKING 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: SPECIAL TOPICS

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). This sequence of courses introduces students to the language of everyday life. Students learn the basic skills: speaking, listening, writing and reading. 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. Students will correspond with Japanese students in Yokohama through the Internet and letters. Japanese culture is also introduced through short stories, food, movies, songs, comic books, anime, TV shows, calligraphy, games and origami. Resources include texts, video, audio, computer-based 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 Japanese 210. 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. *Offered: winter and spring terms in years when Japanese 110 does not have sufficient 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 spoken and written Japanese. The students are introduced to more-complex grammar and reading, as well as more-advanced kanjis and vocabulary. The students become more proficient at reading authentic texts aided by the use of electronic dictionaries.

JPN310/320/400: ADVANCED JAPANESE

This sequence of courses is offered fall (JPN310), winter (JPN320) and spring (JPN400). In this sequence of courses students consolidate the previously learned material, as well as build new vocabulary and grammar. Various cultural and social topics, such as environmental issues and gender issues, 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). This course's main focuses are to increase skills in reading, analyzing 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. 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: SPECIAL TOPICS

For advanced students of the language, this courses feature 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 computer-based and Internet materials.

RUS111/221/231: BASIC RUSSIAN — ACCELERATED

This sequence of courses is offered fall (RUS111), winter (RUS221) and spring (RUS231). This three-term 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 Russian 310 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 more-sophisticated 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: SPECIAL TOPICS

For advanced students of the language, this courses feature 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 oral practice and written exercises lead students to a mastery of grammar. Students begin reading short stories in the first month to broaden vocabulary and develop the skills of speaking, listening, reading and writing.

SPA12T: TRANSITION SPANISH 1

For students who have had one or two years of Spanish in junior high 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. This course normally promotes to Spanish Transition 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. This course normally promotes to Spanish 210 or 220 in the spring. *Offered: winter term.*

SPA13X: TRANSITION SPANISH 1 — ACCELERATED SPA21X: TRANSITION SPANISH 2 — ACCELERATED

This course sequence offers an accelerated first-year 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. *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 Spanish 110/120/130. It completes the study of fundamental forms and structures and includes a program of readings such as *Misterio en Altamira* by Meix and Hernandez; Pavón's *El carnaval*; and *El sombrero de tres picos* by Alarcón. *Note: SPA210 is not offered winter term.*

SPA310/320: ADVANCED SPANISH

This sequence completes a review of 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 Cantón, Buero Vallejo, and Delibes, and novels such as Sender's *Réquiem por un campesino español* and Denevi's *Rosaura a las diez*. *Prerequisite: SPA230.*

SPA400: PANORAMA OF LATIN AMERICAN AND SPANISH READINGS

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 Spanish-speaking 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 500-level courses may be taken in any order after completion of SPA400. It is recommended that students discuss 500-level 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 500-level 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.

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 21st-century 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 Spanish 503 and 504, 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.

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 Spanish-speaking 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 Spanish 502 and 504, 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.

SPA504: THE EMERGING SELF: ART AND IDENTITY

Students expand on their linguistic skills and knowledge of Spanish-speaking 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 Spanish 502 and 503, 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.

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 student-made production. *Offered: fall term.*

SPA552: MAGICAL REALISM: 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. 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 in-depth study of a single Hispanic masterpiece gives special attention to the historical, cultural and social context in which the work was written. Possible “superchoices” include García Márquez’s *Cien años de soledad*, Allende’s *La casa de los espíritus* and Vargas Llosa’s *La fiesta del chivo*. *Offered: spring term.*

SPA554: SPANISH LITERATURE AND CULTURE: LIMITS OF REALITY AND THE IMAGINATION

This course will focus on novels and short stories that question the attempt of literature to capture reality in its complexity or to act as a way to escape from it. The authors whose works are studied include Cervantes, Quiroga, Fuentes, Cortázar, García Márquez and Borges. This class is the first of a three-part sequence of courses that prepares students for the Advanced Placement exam in Spanish Literature and Culture but students are not required to take both terms. *Offered: fall term.*

SPA555: SPANISH LITERATURE AND CULTURE: AN EXPLORATION OF LOVE AND PASSION

During this term we will explore how love and passion are expressed in theater, poetry and short stories throughout the history of Spanish literature. We will start reading poetry by Garcilaso de la Vega, Quevedo, Bécquer, Neruda, Darío and many others, continue on to *El burlador de Sevilla* by Tirso de Molina, and finish with analyzing current love songs. This class is the second of a two-part sequence of courses that prepares students for the Advanced Placement exam in Spanish Literature and Culture, but students are not required to take both terms. *Offered: winter 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 socio-economic 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.*

SPA590: SPECIAL TOPICS

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. In 2017-2018 the following course will be offered:

SPA590: THE TELENVELA

This course is designed to emphasize the practice of oral and aural Spanish by watching and discussing Spanish speaking “telenovelas” 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 “telenovela” with closed captions in Spanish that will be discussed during class time. *Prerequisite: SPA400.*

Music

Music engages our highest faculties of listening, reasoning, imagining and feeling. The study of music is a fundamental part of a well-rounded education. An essential way to explore our common humanity, music simultaneously cultivates self-discovery and a capacity to know others. An experience rich in musical challenge and reward teaches lessons that expand well 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, the private-lesson studio and the academic classroom. In ensembles, students learn the art of collaborative music-making and listening. In the private-lesson studio they learn technique, interpretation and self-expression. In the classroom, students learn 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, sight-singing, 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, non-conventional, 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 computer-generated sounds. Intermediate musicianship skills are required. *Prerequisite: MUS200, MUS201 or permission of the department. 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 four-part 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, sight-singing and keyboard skills. *Provides one term of credit toward the studio/performance arts requirement. Prerequisite: 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. 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.*

MUS402: ART MUSIC IN THE WEST

This course equips students with the musical and cultural literacy to understand the aesthetic and societal forces at work throughout the development of the Western musical canon. Through listening, reading, discussion, and written reflection students will build a vocabulary to speak about music in the language of musicians. While there is no musical prerequisite for this course, students will be expected to read, research, and write at an advanced level. Emphasis will be placed on contemporary criticism, the intersection of music and politics, and ideas of performance practice. *Open to uppers and seniors. Earns one credit toward the completion of the arts requirement. Offered: fall 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 Academy’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. Studio fee: \$155.*

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 Academy’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 due February 1 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 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. Studio fee: \$155.

PEC110: ADVANCED MUSIC PRACTICE

Advanced Music Practice gives conscientious and dedicated musicians time within the context of Exeter’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 end-of-term 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. The Sports Option is not available to students participating in this program. *Advanced Music Practice* is limited to 12 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 50-minute 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., non-credit. Half-period lessons provide no academic credit.

Note on Private-Lesson Fees

In 2017-2018, the fees for Private Lessons, which are in addition to regular tuition, are: \$64 per 50-minute lesson (full lesson); \$35 per 25-minute lesson (half lesson).

Students normally receive 10 lessons per term.

Students who receive financial aid automatically receive financial assistance to help cover a portion of the cost of one set of music lessons per term.

■ 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 hand-drumming 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 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 give-and-take of playing chamber music. 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.

MUS063: PERCUSSION ENSEMBLE

Through rehearsal and performance, students will learn the playing techniques and explore the colors, textures and rhythms available in the varied instrumentation of the percussion ensemble. The instruments used in the 20th-century literature that will be studied

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
Flute (Classical, Wooden Celtic)	Tuba
Fiddle	Ukulele
French Horn	Violin
Guitar (Classical, Folk, Rock)	Viola
Harmonica	Voice

include the marimba, xylophone, orchestra bells, gong, timpani, snare and bass drum, cymbals, and an assortment of accessories. 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 double class period per week plus individual practice. No 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)
- Exeter Spirituals Ensemble
- Renaissance Schola
- Vocal Jazz

*other groups form each term as enrollment and interest dictate

MUS075: EXETER CHORAL UNION

Faculty and community members in this mixed-voice choral ensemble perform major works of choral literature, often collaborating with the Concert Choir, Chamber Orchestra, and soloists. Through twice-weekly 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, Exeter'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. Audition required.*

MUS083: EXETER 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 Exeter 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, sight-reading 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 extended evening rehearsal per week. Placement audition required.*

MUSO97: 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, culminating in a major concert in the spring. *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 hours per week. Placement audition required.*

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 off-campus program.

Registration for Performance Courses

Students who register for MUS400 or MUS500 must also register for full-period private lessons: MUSO10 – “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 off-campus lessons for MUSO10 as part of MUS400 or MUS500 will be given by the department on a case-by-case basis.

Repeating Courses

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

The Music Option

Any student taking the same music course for 1/3 credit for three consecutive terms may take a one-course reduction in load during the third term.

Any student taking Music 077 (Concert Choir) or Music 087 (Chamber Orchestra) for 2/3 credit for two consecutive terms may take a one-course reduction in load during the second term.

This reduction, known as the Music Option, should be indicated by the code MUSO01 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

Phillips Exeter Academy 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 Exeter 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. Eleven members of the Physical Education Department and many faculty colleagues teach and coach in the program at a variety of levels.

The athletic complex includes two indoor skating rinks, four basketball/volleyball courts, 10 international squash courts, an all-deep championship swimming pool, a four-lane training pool, a dance studio, a weight room, a training room and visiting team locker rooms. In addition, the Thompson Cage supports the indoor track and wrestling programs. Outdoor areas include 19 all-weather tennis courts, the Plimpton Playing Fields, the Amos Alonzo Stagg baseball diamond, the Ralph Lovshin all-weather track and the Hilliard lacrosse field. Phelps Stadium, home to the football, field hockey and lacrosse programs, includes an all-weather field turf playing surface and lights. The William G. Saltonstall Boathouse stands at the opposite end of campus and was named in 1990 in honor of our former principal.

Students are required to participate in the physical education program four days per week. Those students participating on an interscholastic team typically have a six-day-a-week 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 club sports.

A senior or an upper may opt out of one of the three terms of Physical Education unless he or she participates in a one-term off campus program during the school year. Ninth-grade students have the opportunity to try out for a varsity or junior varsity team. Ninth-grade 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 non-swimmers are given the opportunity for instruction throughout the year.

Lowers, 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.

PECO01: SPORTS OPTION

Students who want to take a one-course reduction in Physical Education during their upper and/or senior years select this course. Athletes who elect to take the Sports Option cannot request free formats for any reason, including participation in training on or off campus. Credit for physical education for individual off-campus programs is determined on an annual basis. Students should consult with the program director or coordinator. If an off-campus program does not receive preapproval for a program of regular, supervised physical activity by the PE Department, then no PE credit will be given for that term. Consequently, students in these programs are required to participate in the PE program at Exeter for the other two terms on campus. Opting is not allowed for students participating in an off-campus program that does not have a preapproved program of physical education. *For uppers and seniors.*

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 intermediate II or advanced dance, 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 Exeter 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, cross-country 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 Exeter’s custom of choosing one sport for the bulk of the spring. Tennis, diamond sports, lacrosse, track and field, cycling, crew and 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 12 to 14 games offers opportunity to excel at a very high level.

PEM130: VARSITY FOOTBALL PEM135: JV FOOTBALL

The JV, composed of underclassmen with varsity potential, plays six games. The varsity, composed mostly of uppers and seniors, play a nine-game schedule in the Class A league ending with the traditional Andover game.

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 high-level drills.

PEB160: BOYS VARSITY SOCCER PEB165: BOYS JV SOCCER

The boys varsity and junior varsity teams play a 16- to 18-game 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 Exeter 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, timing and scoring at games, recording statistics, etc. This is a six-day-a-week commitment. 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 not manage more than two terms in a given year, nor manage two teams and take the Sports Option for the third term.

■ 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 plyometrics, 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 Exeter 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 well-being, 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 mediation 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. Students are encouraged to provide their own mat.

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 MAINSTAGE TECHNICAL CREW

See Theater and Dance offerings.

PEC133: PILATES

Pilates, originally developed by Joseph Pilates more than 80 years ago, is an anatomically based method of body conditioning consisting of strengthening and stretching exercises emphasizing core strength and stability. This course will be based on mat exercises that will improve not only total body and core strength, but also postural alignment, flexibility, balance, coordination and endurance. Weight-bearing exercises and a cardiovascular component

will be included in addition to the mat work to produce a complete fitness workout. This course can be used as an excellent fitness workout in itself or as a supplement to other fitness/athletic endeavors. Modifications to all exercises will be taught in order to accommodate all fitness levels and to facilitate individual improvement.

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 low-ropes challenges, obstacle activities, outdoor survival education, camping skills and orienteering. This class will be taught on and off campus. 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 have already learned the basics of tennis. 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, racquet and tennis balls are required.

PEC175: COMPETITIVE TENNIS LADDER

Competitive tennis is for those players who desire more one-on-one competitive match play. This section is open to students who have not participated in the varsity or junior varsity programs. Players in this section should have a solid background in scoring and be on the intermediate level or above. The class is structured around singles and doubles round robins, drills and free hitting. Proper tennis shoes, racquet and tennis balls are required.

PEC260: CLUB SQUASH

The club squash program is designed to help beginners and others who have not made varsity or JV learn basic strokes and tactics. *Required: racquet, one ball and eye-protection glasses.*

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.

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. *A swim test is required.*

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 Academy 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 MAINSTAGE TECHNICAL CREW

See Theater and Dance offerings.

PEC200: INTERMEDIATE FITNESS

See fall program description.

PEC203: GROUP FITNESS

Group Fitness will use high levels of physical activity taught through a variety of mediums. Possible examples include aerobics, step aerobics, Pilates, Zumba, body tone and yoga. It is expected that this class will be based in a studio, with music much like the recipe for group fitness used by fitness clubs.

PEC206: AQUATICS

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.

PEC242: FITNESS — OUTDOOR

Outdoor fitness offers noncompetitive, cross-country skiing as often as possible through the Academy woods, around the fields and on the river. Non-skiing days are spent hiking, mountain biking or in other outdoor activities. Skis are required.

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 no-checking, 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 will be fitted for a helmet and checked for proper equipment.

PEC260: CLUB SQUASH

The club squash program is designed to help beginners and others who have not made the varsity or JV learn basic strokes and tactics. Required: racquet, one ball, eye-protection glasses.

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 Exeter 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 Exeter 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 high-level 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 20-game 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

Varsity softball plays a schedule of games against other New England prep school teams. Practices stress individual improvement and team 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 1,500-meter 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 1,500-meter races with neighboring private and public schools. Students immediately begin to learn the technique of rowing and coxing in eight-oared 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 school 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 seven to 10 players who compete against other independent schools. The team plays at Portsmouth Country Club and players must provide their own clubs. A ladder provides opportunity for advancement.

PEB360: BOYS VARSITY LACROSSE

PEB365: BOYS JV LACROSSE

The boys varsity, in its 16- to 18-game schedule, competes in Division I of the Northern New England Secondary School Association and plays other teams in Massachusetts, Connecticut, Rhode Island and New Hampshire. Individual and team skills and strategies are geared for successful transition to collegiate play. The boys JV team of underclassmen concentrates in practice on fundamentals and plays a 12- to 14-game schedule.

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.

PEC105: BICYCLING (BEGINNING)

Bicycling is open to students who own a 10-speed bicycle or mountain bicycle. This section 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 Exeter vary from 8 to 15 miles, with occasional longer rides. Bike helmets are required.

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 bouting 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 MAINSTAGE TECHNICAL 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.

PEC171: CLUB TENNIS

Spring club tennis is for advanced beginners and over who have learned the basics of tennis. Players compete in singles and doubles through individual round-robin tournaments and/or team play. Free-hit days are also scheduled into the sessions. The spring club tennis sections will also play matches against the prep program's competitive tennis section toward the middle to the end of the term. Tennis racquet and tennis balls are required.

PEC175: COMPETITIVE TENNIS LADDER

This section is for tennis players who desire more one-on-one competitive match play. The class is structured around round-robin play and free-class hitting. Players in this section should be advanced beginners and above. The spring competitive tennis ladder will also play matches against the prep program competitive tennis section toward the middle to the end of the term. Tennis racquet and tennis balls are required.

PEC200: INTERMEDIATE FITNESS

See fall program description.

PEC300: CHALLENGE FITNESS

See fall program description.

PEC304: AMERICAN RED CROSS LIFEGUARDING

See fall program description.

PEC350: CLUB GOLF

In the club golf program, approximately 13 students play four days a week at the Exeter 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.

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 be required to meet with the chair of the Physical Education Department to obtain an application that details the expected requirements and responsibilities of this process. Completed applications will be considered by the department in October for the winter term and January for the spring 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 Academy's health care staff.

PECExc: ACTIVITY EXCUSED

This is for students unable to participate in the physical education program due to a medical condition. Permission of the Academy'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, labs, demonstrations and class discussions facilitate exploration of the biological basis of human behavior, human development, perception, learning, memory, cognition, social interaction, personality, psychopathology and the treatment of mental illness. Reading may include selections from the works of major figures in historical and contemporary psychology, such as Piaget, Freud, Jung, Skinner, Chomsky, Ainsworth and Gilligan. Literature, film and students' observations of themselves enrich discussions focused on the self and its experience of development, identity, love, hate, pain, pleasure, cognition and group dynamics. Independent research may allow students to focus on a specific topic of interest. *Open to seniors. Enrollment is limited.*

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

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, 590, 592, 594, 596, 598

SENIOR: Religion 450, 455, 460, 465, 470, 475, 550, 555, 560, 565, 570, 575, 590, 592, 594, 596, 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 hip-hop, 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, *Barabbas* by Pär Lagerkvist, *The Alphabet of Grace* by former Academy School Minister Frederick Buechner, *Siddhartha* by Hermann Hesse, *The Color Purple* by Alice Walker, *The Secret Life of Bees* by Sue Monk Kidd, *The Fault in Our Stars* by John Green, 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 self-discovery, 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 “mini-meditation” 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. Towards 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 African American experiences of Islam. *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, life-cycle 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, meet a rabbi, and examine the Phillips Exeter Academy 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 in-depth 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 ever-changing modern life. *Open to uppers and seniors.*

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

Melting polar ice caps, oceans filled with plastic and empty of fish, soon-to-be exhausted fossil fuel sources, the continued scourge of global diseases, increasing disparity between the rich and poor in the face of exploding population growth, and other intractable world problems — what kind of a world do we live in? What kind of a world should we live in? This course will read authors in the forefront of social and ethical analysis, such as Jared Diamond, Peter Singer, Lester Brown, Bill McKibben and others, as we develop appropriate responses to the global crises of this and the next generation — in population, the environment, energy, pollution, climate, health and wealth, food, and many others. The course will include work with current news sources — both national and international — as well as numerous video clips to illustrate some of the problems, as well as proposed solutions. *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 concerns? Who or what protects the public interest? This course considers these questions in the world of business and management. Students will debate the moral aspects of institutional policies and practices in such areas as the environment, fair labor, executive compensation, globalization and international sweatshops, consumerism and its opponents, advertising, insider trading, whistle blowing, and the corporate responsibilities of multinational firms. Readings will include ethical theory, along with multiple case studies and films illustrating current examples of ethical issues in business. Students also track issues as they appear in the daily national and international news. *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 “best-seller” of all time and a major influence on every aspect of Western culture. *Open to uppers and seniors. Offered: fall term.*

REL475: WOMEN, GENDER, AND RELIGION IN FILM

For thousands of years, religion has played a central role in shaping cultural norms about gender and sexuality. In recent times, women's voices have emerged to raise fundamental questions about this history and its implications: Why do women constitute the majority of so many religious communities that bar them from leadership? What parameters and expectations do religious communities set not only for women and girls, but also for men and boys? Does religion sanction sexism, and violence against women? Is religion compatible with modern notions of feminism and human rights? In this course, students will explore these questions through the lens of contemporary, critically acclaimed films that place women's experiences and storytelling at the center, such as *Pray the Devil Back to Hell* (Liberia), *Where Do We Go Now?* (Lebanon), *Snow* (Bosnia and Herzegovina), *Wadjda* (Saudi Arabia) and documentaries about women's religious lives. Course readings and assignments will be geared toward fostering students' ability to think and write critically about film and the complexities of religion, gender and society in the United States and abroad. *Open to uppers and seniors. Offered: winter term.*

REL550: THE EMERGING SELF

This course offers varied religious and psychological perspectives on human nature and experience. Students will consider the role of religion in relation to the development of the sense of the self. Readings include selections from the writings of major figures in religion and psychology, as well as works of memoir and fiction. Texts may include Peter Shaffer's *Equus* and Hermann Hesse's *Demian*, and authors may include Sigmund Freud, Carl Jung, Carol Gilligan and others in modern psychology. The course culminates with a reflective writing assignment. *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

Exactly what is Zen Buddhism? Through readings ancient and modern, videos, visits with a meditation instructor and independent projects, students will learn about the origins, philosophy and varied expressions of a movement that reaches back to the 5th century B.C.E. and into the 21st century. We will examine both teachings and practice of Zen Buddhism, as it is

expressed in traditional Japanese arts such as the tea ceremony, archery and calligraphy, and as it appears in contemporary popular culture. *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 2017-2018 the following four Religion 590 courses will be offered:

REL592: AN INTERDISCIPLINARY APPROACH TO EPISTEMOLOGY (or The Question of How We Know What We Know)

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 and Newton), the multiple expressions of “postmodernism” in art, philosophy and literature (Dostoyevsky, 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 Chozen 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 entitled “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 afterwards — 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 self-discernment, 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 Well-Lived, 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*; Adam Grant's *Originals: How Non-Conformists Move the World*; Bernard Roth's *The Achievement Habit*; Tim Brown's *Change By Design*; Kelley and Kelley's *Creative Confidence*; 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*; Bo Bronson's *What Should I Do with My Life?* and Plato's *Alcibiades I*. 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. *Open to uppers and seniors. Offered: fall and winter terms.*

REL596: FINDING A SPIRIT OF RESILIENCE

What tools and practices are needed to go through the world in a more embodied, intentional and present way? How do we focus our attention in a sea of busyness? How do we listen to the emotions, without being overwhelmed by them? What is a "spiritual practice?" These are the questions asked by seekers in all of the world's religious traditions. This class will consider what we can learn from traditional readings such as theologian Martin Buber's *I and Thou*, and Howard Thurman's *Disciplines of the Spirit*, as well as from contemporary texts such as Jack Kornfield's *A Path With Heart* and Jan Chozen Bays' *How To Tame a Wild Elephant* and *Mindful Eating*. We will also invite guest speakers who will share their practices and perspectives with the class. Students will be asked to try one such practice — such as meditation, mindful running or other activity, yoga or music — and follow it through in a daily journal of their own experience. *Open to uppers and seniors. Offered: fall term.*

REL598: SPRING BOOK CLUB FOR 2018

This course reads down selectively The New York Times hard- and paperback nonfiction bestseller list, searching for books which 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 like-minded students who are interested in reading and talking about books and the issues contained therein. Drawing together the knowledge gleaned from their time at Exeter, and the various courses an Academy 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 Exeter career as such information pertains to the various books this course might read. Although the reading list will change from year to year, depending upon the bestsellers of the day, in the recent past this course has read such books as Malcolm Gladwell's *Outliers*, Sheryl Sanberg's *Lean In*, Jon Krakauer's *Missoula*, Trevor Noah's *Born a Crime*, J. D. Vance's *Hillbilly Elegy*, Bryan Stevenson's *Just Mercy*, Sherry Turkle's *Reclaiming Conversation*, Levitt and

Dubner's *Freakonomics*, Ta-Nehisi Coates's *Between the World and Me*, Amy Chua's *Battle Hymn of the Tiger Mom*, 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 self-reflections on the students' time at the Academy 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 Phillips Exeter Academy 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 Academy.

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 three-term 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 double-format 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 double-format 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 Exeter 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 double-format meeting time for weekly labs. Offered: spring term.

BIO465: ECOLOGY

This is a place-based, 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 double-format 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 service-learning 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 double-format meeting time for weekly labs. Offered: winter term.*

BIO475: EVOLUTION

Students will read Weiner's Pulitzer-prize-winning book, *The Beak of the Finch*, for its excellent examples of evolutionary changes that are being observed and measured today. Then Sean Carroll's new text on Evo Devo, *Endless Forms Most Beautiful*, will help students understand how changes in development occur and how those changes lead directly to new physical characteristics in organisms. For the first time, scientists understand how eggs become embryos, which then become ordered bodies. This process of animal development turns out to have such amazing similarities among all members of the animal kingdom that a common descent from an ancestor that lived 600 million years ago is the only possible explanation. Labs will range from fossil examinations to a polymerase chain reaction exercise to the production of stone tools. *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 Academy'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 double-format meeting time for weekly labs. Offered: fall and spring terms.*

BIO490: 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 double-format meeting time for weekly labs. Offered: fall term.*

BIO590: 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: Biology 490 or Biology 510. 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: winter 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 three-term sequence, students will be prepared to write the Advanced Placement examination in biology. *Prerequisite: One year of introductory biology and one year of introductory chemistry. Open to uppers and seniors. Meets during the reserve format.*

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 insulin-producing 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 insulin-producing 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, fluorescence 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 BIO490, BIO590 and/or BIO510/520/530. Meets during the reserve format. Offered: spring term, E and F formats only.

■ 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. After completing this three-term sequence, students will be prepared to write the SAT II test in chemistry. *Mathematics co-requisite: 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, laboratory-based 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 in physics and must complete an application in order to be considered for the course. The Science Department will review applications and select those who are qualified for enrollment. Application forms and further information are available from the Science Department chair. *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 heavy-metal 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 double-format meeting time for weekly labs. Offered: spring 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 three-term 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.*

■ 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 and spring terms.*

■ 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 ninth-grade students who have demonstrated unusual ability for and interest in physics. They cover material similar to that covered in Physics 220 and 230, 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 three-term 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.*

CSC407 AND PHY315: INTRODUCTION TO SCIENTIFIC MODELING THROUGH PHYSICS AND COMPUTER SCIENCE

We understand nature through the observations we make of the natural world and the models we build to understand those observations. Computers play an increasingly vital role in constructing these models and in presenting them to scientific and lay audiences. The algorithmic thinking required to write computer programs parallels the modeling done in science. This joint course will explore model building and software development through physics and culminate in a final project in which the students will develop a computer model for some physical phenomenon. The physics content of the course will cover the Newtonian mechanics concepts of motion, force and momentum. The computer science content of the course focuses on the object-oriented programming paradigm with important concepts covered in this course including: algorithmic thinking, classes, inheritance and polymorphism. *Prerequisites: Open to lowers, uppers and seniors (juniors with departmental permission). For lowers, uppers and seniors, the prerequisite is successful completion of Mathematics 230. Students who have taken PHY210/310 or CSC405 may not take this course. Students who take this course will continue to Physics 220, 221 or 320 in the winter term. This course is scheduled for two formats and students receive two term credits. Students must register for both CSC407 and PHY315. Meets during the reserve format. Offered: fall term.*

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 hands-on work, data from historical experiments or computer simulations will be provided for analysis. This course picks up where a rigorous, year-long 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 micro-controlled 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 double-format meeting time for weekly labs. Offered: spring term.*

PHY460: ELECTRONICS

This introduction to electronics is a hands-on, project-oriented 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 double-format 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, short-term and long-term 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 Exeter 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 Exeter 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 three-term 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 in-depth laboratory experiments, and calculus-based 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 three-term 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 Exeter 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 “particle-in-a-box,” 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 Math 520 level. *Prerequisites: PHY400, PHY520 and MAT520 or permission of the instructor. Offered: spring term.*

Senior Studies

Senior Studies courses encourage students to make connections across disciplinary lines and to utilize skills they have developed in different disciplines. They include both one- and two-term courses.

Enrollment in these courses is limited.

SRS502: AGRICULTURAL SCIENCE, PRACTICE AND POLICY

This course will investigate agricultural systems and allow students to define sustainable agriculture. Scientific topics such as conventional versus organic systems, closed-loop food production, soil science, nitrogen cycles, and plant physiology will be explored. In addition, the course will seek to answer the question, *Why is agriculture important?* This will give students the chance to explore relevant topics in policy and economics such as farm subsidies, farm trusts, agricultural easements, agrotechnology and global food issues. Emphasis will be placed on experiential learning on local farms and on campus. The course also intends to connect students to local agriculture and agricultural research at nearby universities. *This course meets during a reserve format in order to create a double-format meeting time for weekly labs.* Offered: spring term.

SRS503: 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. Offered: spring term.

SRS504: 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. Offered: spring term.

SRS505: THE BLACK EXPERIENCE IN WHITE AMERICA

This course will trace the African-American experience from the time of slavery until the present. Students will read primary and secondary sources to understand the origins and conditions of slavery and the development of black consciousness, leadership ideologies and protest movements that culminated in the civil rights revolution of the 1950s and 1960s. Other topics will include the ideology of racism and the complex relationship between issues of class and race. Primary documents will include slave narratives, folklore, autobiographies, polemics and literature. Offered: winter term.

SRS508: 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 multi-billion 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.” Offered: spring term.

SRS509: SCIENCE AND RELIGION

Thinking about ourselves and our relationship to the universe is an essential part of our being human. This course examines how science and religion work together to connect us to the cosmos. We consider the discarded sciences of astrology and alchemy and compare these with modern attempts to discover the unity of all knowledge and understanding. We read and discuss selections from a wide range of contemporary authors, including Richard Feynman, *The Meaning of It All*; Stephen Hawking, *Black Holes and Baby Universes*; Michael Polanyi, *Science, Faith and Society*; Owen Barfield, *Saving the Appearances*; and Edward O. Wilson, *Consilience*. We attempt to evaluate the changes that are being made to our conceptions of space and time, which are changing the way we view the realities that science and religion describe. We learn that although it may be impossible for us to understand everything there is to know about the universe and ourselves, it is possible to learn a great deal from those who have had the faith to try. Offered: spring term.

SRS550: 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 in-depth 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. Lab-based, 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. video-computer 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. *Does not meet the Physical Education requirement. Offered: spring term.*

SRS552: 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 student-directed discussion. *Prerequisite: Two years of lab science. Offered: spring term.*

SRS553: 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 *InsightOut: Get Ideas Out of Your Head and Into the World* by Tina Seelig, will provide us with a working vocabulary for creative problem-solving methodologies and a historical understanding of successful endeavors from the past. The second half of the course will be devoted to student-designed group projects that tackle real-world 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. *Offered: fall term.*

SRS554: DESIGN THINKING: CREATIVE PROBLEM-SOLVING WORKSHOP

Design thinking is a problem-solving 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 human-centered 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 low-cost infant warmer that reduces infant mortality in developing countries. Other students have created products featured on Kickstarter, such as a self-watering 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 real-world 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 larger-scale 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. *Offered: spring term.*

Theater and Dance

Theater and Dance hold center stage within the Exeter curriculum. Each art explores its own disciplines and techniques, while teaching students an array of creative skills that will enhance their lives at the Academy and beyond.

These two performing arts join in our department's central mission to help our students better know themselves, to thoughtfully explore their imaginations, to experiment creatively, and to effectively express their ideas within the larger community.

Whether in a rehearsal room, on a film set or in a dance studio, the growth of each student occurs in the context of Harkness learning, a group dynamic that is highly collaborative.

Our collective mission remains to inspire students toward greater understanding of their unique potentials through thorough and disciplined research into the creative process.

The Dance Program welcomes all students who are interested in dance. It strives to offer students of all levels and interests the opportunity to study, choreograph, perform and explore various dance forms. Participation in and exposure to the arts is an integral part of education, expanding one's horizons and encouraging tolerance and understanding.

All theater courses provide one credit toward the studio/performance arts requirement. Dance courses grant physical education credit, but not studio/performance art credit. The dance studio is located in the Davis Center. Major performances are held on the mainstage in Fisher Theater. Informal performances are held in the Davis Dance Studio.

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 will create a united team of citizen artists exploring one or more social issues. Intended to ignite in students a passion for drama and an equal passion for social justice, students will collaboratively develop and perform an original work of theater. Students spend the first part of the term acquiring and honing basic theater skills and learning about the many different ways communities express views on social justice through drama. Our reference points revolve around Augusto Boal's classic *Theater of the Oppressed* and his subsequent *Games for Actors and Non-Actors*. We also refer to more contemporary

texts, such as *Staging Social Justice — Collaborating and Creating Activist Theater* by Norma Bowles, founder and artistic director of the Fringe Benefits alliance of artists and activists. Next, after group research and debate, we select and focus on one social issue and individuals will create monologues and/or slam poetry expressing their views on that issue. Hip-hop and slam poetry anthologies such as Mark Eleveld's *The Spoken Word Revolution* serve as templates for this writing. Finally, we collectively decide on and create an original theater piece, using resources that might include newsprint journalism, court transcripts, personal interviews and improvisation to create a unified and coherent piece of theater for performance. *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 20th-century American plays and perform for each other in class.

THR204: STAGECRAFT

This course explores past and present techniques of creating and manipulating scenery, properties, costumes, light, sound and makeup to enhance the theatrical event. Lecture demonstrations and hands-on laboratory experience are featured. Three single-class periods and one 75-minute lab per week. *Required materials for this course include work gloves and safety goggles.*

THR205: DESIGN THEATER: COSTUMES, PROPS AND PUPPETRY

This course builds upon the maker-space approach to innovative learning. Students actively collaborate in a creative lab as a production team. Each student member will learn the process of design for theater, and bring those ideas to life. Classes will include learning to hand sew and work with various machines and small power tools. Additionally, each student will create renderings for costumes and props, and imagine the design and construction of their own puppets. *Lab fee: \$30. Offered: winter term.*

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 20th-century 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: fall 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: winter term.*

THR304: POETRY STAGE

The Poetry Stage course offers a class of students the opportunity to not only collectively explore specific poetic texts, but also to physicalize and dramatize such material for an audience. Together, the class selects and/or focuses on a body of poetry and develops it through a term-long rehearsal process, culminating in a final production: a series of three performances in our Black Box experimental theater. When possible, the poet or poets work for a time in residence with the class, helping students to uncover poetry at a deeper, more experiential level than might be available in a traditional classroom experience. The work is drawn from poets both classical and contemporary, from famous writers to recently published and/or prize-winning faculty and student poets. Work in previous years has explored and celebrated themes of diversity within the American experience. *Offered: spring 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 in-depth 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: spring term.*

THR406: LIGHTING DESIGN

This course draws from concepts in art, nature, science and the humanities to explore the role of stage lighting in theater, dance and other performances. Students will gain a technical working knowledge of basic stage lighting equipment. The artistic and psychological effects of lighting on stage will be examined through a hands-on laboratory environment. Students will develop a critical eye and a heightened awareness of light in the world around them through observation and collaborative discussion. *Offered: winter term.*

THR502: ACTING III — ADVANCED 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 full-length production. The course offers seniors the opportunity to build on skills acquired throughout their Exeter 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 PEC109, or opt out of sports. Offered: spring term.*

THR590: SPECIAL TOPICS

This course is offered at student or departmental initiative. Examples of special topic courses include *Dance History and Choreography*, *Costume Design*, *Stage Management*, *Mask and Puppetry*, or any other topic from Theater and Dance that has sufficient interest from students. *Open to lowers, uppers and seniors or with permission from the department chair. Offered: fall and spring terms.*

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 the Sports Option 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 classes and apply them on a major scale, though there is no prerequisite. A passionate sense of exploration, play and commitment are the only

requirements. Students involved in a mainstage performance must be enrolled in this course or PEC112. *T.M.P. does not carry academic credit; it does, however, meet the physical education requirement for the term. All grade levels may participate in Theater Mainstage Performance. No previous experience required.*

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. 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. Normal registration through LionLinks not available.*

■ **Speechmaking**

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 learn to critique themselves and one another to produce the results they desire.

■ **Filmmaking**

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. Sequences from student and professional films are studied and critically analyzed. *This course will not be offered in fall 2017.*

■ **Dance**

DANCE COURSES OFFERED FOR PHYSICAL EDUCATION CREDIT

The dance program primarily focuses on ballet and modern dance. Technique, flexibility, strength, control, coordination and cardiovascular exercise are stressed at all levels. Each class includes an extensive warm-up (barre in ballet class, stretching and conditioning in modern dance classes), followed by center- and across-floor exercises and combinations. Choreography for upcoming performances is often introduced in class. Intermediate and advanced students are offered the option of participating in

informal performances, such as the Family Weekend program and the Martin Luther King Jr. celebration. The Dance Company is involved in additional performances. The Dance Concert Ensemble presents the annual Spring Dance Concert.

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.

The following technique classes meet four days per week (two days of ballet technique and two days of modern dance technique) for the duration of the physical education term. They are open to lowers, uppers and seniors.

Note: Although the dance program is structured for lowers, uppers and seniors, there are a few spaces made available in the technique classes for juniors with extensive dance backgrounds. Interested students should speak with the dance instructor prior to registering for classes.

DAN100: BEGINNING DANCE

Little or no previous dance training required. Offered: fall and winter terms.

DAN200: INTERMEDIATE DANCE I

Previous dance training, which must include ballet, required. Offered: fall, winter and spring terms.

DAN250: INTERMEDIATE DANCE II

Previous dance training, which must include ballet, required. Offered: fall and winter terms.

DAN300: ADVANCED DANCE

Prerequisite: Permission of the department and extensive dance training, which must include ballet. Offered: fall and winter terms.

DAN400: DANCE COMPANY

In addition to four days per week for advanced-level technique classes (M,T,Th,F), DAN400 includes two days per week (usually Wednesdays and Saturdays) for choreography rehearsals, and tech rehearsals and/or performances. *Prerequisite: permission of the department based on audition and extensive dance training, which must include ballet. Offered: fall and winter terms.*

DAN430: DANCE CONCERT ENSEMBLE

The PEA Dance Ensemble’s annual Dance Concert is one of two mainstage productions in the spring term. Performance and/or choreographic opportunities are available to intermediate and advanced-level dancers. Rehearsals are held five days per week. *Prerequisite: Dance 200, 250, 300 or 400. Offered: spring term.*

DANCE COURSES NOT SATISFYING THE PHYSICAL EDUCATION REQUIREMENT

DNCO10: SEMI-PRIVATE 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 10-class 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: The cost for semiprivate lessons in 2017-2018 will be \$110 if a five-class session is offered or \$210 if a 10-class session is offered. This is in addition to the regular tuition.

Transition Courses

SSK100: STUDY SKILLS

Juniors and lowers new to Phillips Exeter Academy 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 study methods, 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.*

TRN100: TRANSITION TO THE HARKNESS CLASSROOM

Transition to the Harkness Classroom is offered only in the fall term to new international students for whom English is not their first language. The course is not an ESL course but focuses on the academic transition to Exeter, including participating at the Harkness table, analyzing literature and writing papers. Students benefit from practicing discussion skills at a Harkness table with their peers. They also provide a circle of support for one another during the challenging first term at the Academy. *Open to juniors, lowers, uppers and seniors. Offered: fall term.*

Non-native English speakers new to Phillips Exeter Academy should consult with the Dean of Students Office to determine whether they are suitable candidates for this course. It is designed to facilitate the transition to a demanding academic program of reading, writing and discussion for students for whom English is not their first language.

Special On-Campus Offerings

FIELD COURSES

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.

EXETER INNOVATION COURSES

The Academy created Exeter 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 extra-curricular activities.

EXI509: A PEOPLE'S WAR: DIGITAL HUMANITIES IN THE STUDY OF AMERICA'S CIVIL WAR ERA

This course provides students an opportunity to work on a multi-institutional digital archive project while studying the Civil War era. Partnering with the Civil War Institute at Gettysburg College, the National Parks Service (NPS), and the University of Georgia's College of Environment and Design, this class encourages students to conduct original archival research in primary sources while developing a robust understanding of the historical issues

surrounding the Civil War and Reconstruction. Preliminary work in the classroom will introduce students to the major debates and the most recent scholarship concerning the Secession Crisis through Reconstruction. Some fieldwork and archival research will take place during this time. Once a body of knowledge is gained, students will begin focusing their research on New England's Civil War dead buried at Gettysburg National Cemetery. The "Gettysburg in History and Memory: Soldiers Stories Digital History Project" will enable students to blend their interest in history and digital mediums while gaining theoretical knowledge about issues involved with the field of digital humanities. Working with teams of college students, professional historians, NPS rangers, and professionals in the field of digital humanities, course participants will help to develop an electronic archive detailing the impact the American Civil War had on communities whose members were killed at the Battle of Gettysburg. The study will focus on the lives of soldiers in their localities prior to the war and the changes experienced by families in the aftermath of this destructive episode in America's past. Through this collaboration, students will have the opportunity to conduct research and deliberate the best documentary methods available to recreate the footsteps of fallen soldiers at Gettysburg and other historically relevant sites. In detailing this intimate social history and recreating it through the powerful medium of a digital archive, participants will encounter numerous challenges including: curatorial issues of public history, design thinking in representing the past, information retrieval, material culture, geographical considerations in shaping the past, textual evidence, and relationships between macro and micro data. Through this collegial endeavor, students will come to a greater appreciation of the historian's task in fairly and accurately representing the past through our present digital age. During PEA's spring break, students will have the opportunity to travel to historic sites, including Gettysburg and its Civil War Institute, to undertake fieldwork and conduct research in team settings for a week. (Cost of travel will be paid for by the Academy.) Students unable to go on this trip will work on a research project. Appropriate release time for travel/research will be given during the term. *This course earns a credit from the history department but does not fulfill the U.S. or non-U.S. History requirement. Open to uppers and seniors. Offered: winter term.*

EXI409: ADVANCED CERAMICS + CHEMISTRY: C-SQUARED

Artists need to understand their materials. This advanced interdisciplinary course offers a combination of assigned and self-directed projects with further investigations in clay and labs of working with clay and glaze chemistry. This course encourages students to look at art making through the eyes of an engineer and artist — exercising creativity, problem solving, and independently exploring their unique creative process. Building on skills gained in Introductory Chemistry and Ceramics I, students will scientifically explore how the structure of matter determines the properties, and they will develop a more sophisticated approach to methods and techniques that are used to create forms and glazes. Along with labs on glazes, projects include throwing, hand building, modeling and industrial slip casting 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. *Prerequisite: Art 202 and one year of introductory chemistry or departmental permission. Students may choose to take the course for either a Studio Art or Physical Science credit, which will determine the nature of their final project. Students intending to take this course to meet the pre-requisite for Art 500 should consider taking this as an art credit. Open to uppers and seniors. Offered: winter term. In lieu of textbooks, there is a materials fee of \$120.*

EXI419: 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 obligations 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 is a team-taught course given 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 and what are our rights and the responsibility that comes with those rights? We will not only be discussing the ethics of several biological techniques, but will be learning the biology involved and spending 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 and spring terms.*

EXI519: 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." Exeter 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 Exeter meet its Sustainability Master Plan and carbon reduction goals. Students will work in close proximity with their instructors and with the Green Umbrella Advisory Board (former 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, place-based, interdisciplinary problem solving requiring a confluence of skills they have been building throughout their Exeter 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 Exeter High School to design and carry out an additional, appropriately-scaled sustainability project beyond our campus boundaries within the town of Exeter. Students will keep a detailed reflective journal about their work, submit a thorough project self-reflection, and give a formal demonstration of learning to a panel of faculty, staff and community members. Project ideas will be far-reaching, but might include a plan to establish dorm composting; the design and implementation of a learning greenhouse on campus; the design of a net-zero building; the establishment of locally-sourced beef; or a large-scale solar plan, among others. *This course meets during a reserve format in order to create a double-format meeting time for weekly labs. Open to uppers and seniors. Offered: fall term.*

EX1529: IDENTITY, EMPATHY AND CROSS-CULTURAL UNDERSTANDING

A 21st century 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 other's identity and think critically about issues of equity in our society. It will be a 10-week 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 high-school age attendees. *Open to uppers and seniors. Offered: fall, winter, and spring terms.*

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 student-initiated, 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 Academy'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 Off-Campus 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 year-long programs. Any surcharges are included in the determination of the grant. For the Exeter-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), Exeter'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 Academy. The Washington Intern Program, Fall Term in France, Fall Term in England, Winter Term in Taiwan, Winter Term in Italy and Winter Term in Ecuador all require a minimum of eight participants in order to run.

THE MOUNTAIN SCHOOL

Exeter participates in the fall and spring semesters of The Mountain School of Milton Academy. 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 college-preparatory academic schedule. The school is located on a 300-acre 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 day-to-day life in rural New England with a new understanding of their relationship with the natural world and the responsibility this relationship creates.

Students wishing to participate in the program must apply in January of the previous school year. Students will earn one English term credit, and depending upon 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.

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 WIP should not sports opt during the fall or winter terms of senior year.

Successful completion of the program grants two term credits. 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 Exeter 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.

SCHOOL YEAR ABROAD IN CHINA, FRANCE, ITALY AND SPAIN

School Year Abroad, founded in 1964, is a program sponsored by the three charter schools of Exeter, 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 Exeter'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 long-range 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 school-sponsored 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, does not differ significantly from the cost of a year as a boarder at Exeter. Catalogs and further information may be obtained from the Exeter SYA coordinator.

FALL TERM IN GRENOBLE, FRANCE

Students who have completed French 230 or higher may apply for a fall-term 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 10-week 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 TEMA, GHANA

The Ghana Program offers participating students an opportunity to live and study in Ghana from mid-August to mid-November. Students are enrolled at SOS-Hermann Gmeiner International College (SOS-HGIC), a coed boarding school located in the coastal city of Tema, about 20 miles to the east of Accra, Ghana's capital city. SOS-HGIC offers the International Baccalaureate (IB) diploma program, a rigorous and broad-based, two-year, pre-university course of study. The curriculum comprises six academic areas: English; experimental sciences; mathematics and computer science; modern languages/classics; individuals and societies; and creative arts. The academic program is augmented with athletics and a community service program. SOS-HGIC is an SAT center, so students are able to take the SATs either in October or November.

The program includes a 10-day midterm break in October during which students undertake an organized cultural tour of historic and cultural sites in Ghana. The tour provides students an opportunity to acquaint themselves with the people and culture of the country outside Accra and Tema. The most popular of such sites are located close to the regional capitals of Ghana, such as Kumasi in the Ashanti Region, Tamale in the Northern Region, and Cape Coast in the Central Region.

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 Ghana. 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 non-Western history credit for completion of the program. 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 Exeter, 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 for completion of the program. There is a surcharge for the program to cover the cost of flights.

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." Exeter students enroll for the fall trimester at ProBa Language Center, where they receive tutoring in Russian language with the school's teachers. Students attend classes at ProBa Language Center and live in the heart of St. Petersburg with a host family selected by the language school. Daily small-group 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. There is a surcharge for the program.

Students will receive two language term credits for completion of the program. *Open to uppers and seniors.*

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 Exeter faculty member, in lodging near Stratford-Upon-Avon.

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 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 fall 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 mid-February.

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

WINTER TERM IN TAICHUNG, TAIWAN

Seniors in the Chinese program have the opportunity to spend their winter term in Taiwan at Providence University. Students will live with host families, and take courses set up for them, as well as being integrated with local students in math, English and sports. The remaining academic program will include literature, linguistics, history and current events. Students will earn a Physical Education credit for participation in a Martial Arts class. In the afternoon our students will have special sessions and cultural activities, such as music, calligraphy and Chinese painting. Excursions to Mainland China and other 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 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 to cover the cost of flights.

WINTER TERM IN ROME, ITALY

The 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 Exeter faculty member, in host family homes in Rome. The 10-week 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. Successful completion of the program grants one English term credit, one history term credit, and one language term credit in Latin, or in Greek, or both. *Uppers participating in the program must take the English course to fulfill Academy graduation requirements.*

WINTER TERM IN CUENCA, ECUADOR

Seniors who have completed two years of Spanish may apply to a winter term program in Cuenca, Ecuador. Students will attend high school with students from Colegio Alemán Stiehle, where they will take classes with their Ecuadorian peers. Courses may include art, history, math, philosophy and science. Students will also be involved in the Colegio's extracurricular programs and may participate in community service programs in and around Cuenca. They will study Latin American literature, grammar and culture taught by the program director, who is a faculty member from Phillips Exeter Academy. Courses will be complemented by field trips to Cajas National Park, Gualaceo, Chordeleg, the Galapagos Islands, and other sites of interest. Exonians will live with host families selected by Colegio Alemán. The winter term in Cuenca 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 Cuenca. Students will receive two language term credits for completion of the program. There is a surcharge for the program.

WINTER TERM IN BALLYTOBIN/CALLAN, IRELAND

The Exeter-Ballytobin/Callan Program is open to qualified 12th graders. Those selected spend the winter term of their senior year living in Callan, Ireland, and working at Ballytobin, a Camphill community established in 1979 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 the part-time 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 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 Academy's motto of *non sibi*, "not for oneself."

Participants do not return to campus for the start of the PEA winter term. Students do not take academic courses, but will receive one physical education term credit. There is a surcharge for the program. *Not offered in 2017-18.*

Foreign Language Summer Programs

Exeter students may participate in the Academy'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 Exeter 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 Academy 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 year-abroad language options.

JAPAN

This program is designed for students who are interested in exploring Japanese language and culture, and no language background in Japanese is necessary. For two weeks, students live in Tokyo with a Japanese host family with a son or daughter of the same age, and attend Seikei High school. Students will attend academic classes as well as language classes, and experience cultural activities, such as judo, kendo, calligraphy, a tea ceremony, and flower arranging. The students will also go on field trips to experience a hot springs spa and to see historical sites such as Kamakura, the former capital of Japan during the Kamakura Period, and Asakusa, site of the famous Sensoji Buddhist temple, as well as urban districts like Shibuya, the fashion center of Japan, and Akihabara, a major center for technology. Interested candidates should contact the chair of the Modern Languages Department.

RUSSIA

Students enrolled in Russian, or students interested in beginning their study of the language, may spend a portion of the summer developing their language skills in St. Petersburg, Russia. Students may choose their period of study, between two and six weeks. Students attend classes at ProBa Language Center and live in the heart of St. Petersburg with a host family selected by the language school. The school was established in 1995 and has developed a reputation for a friendly and personal atmosphere, together with the high academic standards of Russian teaching. Daily small-group 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 candidates should contact the chair of the Modern Languages Department.

Advanced Placement Program

The Advanced Placement (AP) Program of the College Entrance Examination Board certifies college-level work undertaken by students in secondary schools. The tests, three-hour examinations in 14 academic disciplines, are administered at Exeter in May. There are several advantages in taking the examinations. Students may earn college credit, exemption from college distribution requirements, and/or exemption from lower-level requirements in specific disciplines. At certain universities,

students may earn immediate sophomore standing. The grade scale is from one to five; grades four and five are designated as honors scores. Usually the examinations are taken by seniors who have already been accepted by colleges, but a growing number of qualified uppers and lowers are taking the tests as they complete the required courses.

Some colleges grant credit for SAT II subjects with a test score in the 700s or AP tests with scores of four or five. Parents and students should consult prospective colleges' "Advanced Standing" policies regarding Subject Tests and Advanced Placement exams. Uppers or lowers should consider taking SAT II Subject tests or AP exams only in disciplines in which they may be completing study before the senior year (e.g., biology, physics, chemistry or mathematics). Only students with consistently superior academic performance in a specific subject should consider taking a test before the senior year or taking multiple exams during the same testing period. Students need to consult with their subject teacher and the College Counseling Office before taking a standardized subject test.

NCAA and Public University 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 Exeter 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 Exeter'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 Phillips Exeter Academy are certified to meet NCAA requirements, you must use the school CEEB code 300185. Courses offered through off-campus 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

CAPE ELEUTHERA, BAHAMAS: The Island School through The Lawrenceville School	CEEB 310681
GRENOBLE, FRANCE: American School of Grenoble	CEEB 731206
ST. PETERSBURG, RUSSIA: School #636 is not registered with the NCAA	
STRATFORD, ENGLAND: Not registered with the NCAA	
TEMA, GHANA: SOS-Hermann Gmeiner International College is not registered with the NCAA	
YOKOHAMA, JAPAN: Kumon Kokusai High School is not registered with the NCAA	

WINTER TERM PROGRAMS

BALLYTOBIN/CALLAN, IRELAND: No courses are taken	
CUENCA, ECUADOR: Colegio Aleman Stiehle is not registered with the NCAA	
GÖTTINGEN, GERMANY: Theodor Heuss Gymnasium is not registered with the NCAA	
ROME, ITALY: St. Stephen's School, Rome, Italy	CEEB 748600
TAICHUNG, TAIWAN: Tung Hai University is not registered with the NCAA	

SPRING TERM PROGRAMS

WASHINGTON D.C. INTERN PROGRAM: The English seminar is not certified by the NCAA	
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PUBLIC UNIVERSITY REQUIREMENTS

Students who are planning to play Division I or II college athletics and participate in Exeter's off-campus programs may need to take two English electives in the spring term of their senior year to meet the four-year English requirement. Please see individual program descriptions for further details.

Please direct any questions about whether or not specific courses are certified to the Director of Studies.

2017-2018 School Calendar

Fall Term

SEPTEMBER

6	Wednesday	New Students Register
7	Thursday	Returning Students Register
8	Friday	Opening Assembly First Day of Class
25	Monday	Academy Life Day

OCTOBER

13-14	Friday-Saturday	Family Weekend
16	Monday	Long Weekend Ends Boarders Check In

NOVEMBER

11	Saturday	Exeter/Andover Games
21	Tuesday	Last Day of Fall Term Vacation Begins After Classes

Spring Term

MARCH

18	Sunday	Boarders Check In
19	Monday	Spring Term Classes Begin

APRIL

27	Friday	Climate Action Day
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MAY

26	Saturday	Exeter/Andover Games
31	Thursday	Last Day of Spring Term Vacation Begins After Classes

JUNE

3	Sunday	Graduation
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Winter Term

DECEMBER

3	Sunday	Boarders Check In
4	Monday	Winter Term Classes Begin
19	Tuesday	Vacation Begins After Classes

JANUARY

3	Wednesday	Boarders Check In
4	Thursday	Classes Resume
12	Friday	Martin Luther King Jr. Day

FEBRUARY

9-10	Friday-Saturday	College Admissions Weekend for Upper Parents
24	Saturday	Exeter/Andover Games

MARCH

2	Friday	Last Day of Winter Term Vacation Begins After Classes
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