



LAKE FOREST ACADEMY
Midwestern Heart. Global Mind.

Course Offerings Guide 2022-2023

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Overview

Advanced Level and Advanced Placement (AP) Courses

LFA's Advanced level and Advanced Placement (AP) courses have the distinction of being our most challenging academic programs. Students planning on applying for admission to an Advanced level or AP course need to position themselves by performing well in their current academic course. The decision to apply for entry into an Advanced level or AP course should be made in consultation with the LFA advisor, the parents, and the individual academic department. Admission to Advanced level and AP courses is decided by the appropriate department in conjunction with the Dean of Students. The respective department head should be approached for further information. LFA does not weight grades for Advanced level and AP courses in computing a student's GPA. Students enrolled in AP courses are not required to take the AP exam. Although it is strongly encouraged, it is not mandatory. Students are responsible for paying any exam fees.

Independent Study

Lake Forest Academy believes in the concept of Independent Study for interested, qualified, and mature students. To assist our students in acquiring the techniques necessary to work independently outside the framework of standard courses, and to encourage and cultivate intellectual curiosity, LFA offers students the opportunity to construct and pursue an approved independent course of study. Refer to the student handbook for specific guidelines and criteria.

Curricular Travel

LFA is proud to be able to offer travel experiences embedded in several courses across multiple departments. These opportunities take place over Spring Break* and are made available to all students enrolled in these courses at no additional cost. The locations and itineraries are specifically developed to enhance the student's learning experience. As this travel component is an important aspect of the course, students enrolled in a course with Curricular Travel are expected to take part in the travel experience. With this expectation in mind, students who elect not to participate in the Curricular Travel portion of their class are not eligible to take part in other co-curricular spring break offerings. *Curricular Travel for Orchestra and Choir does not take place over Spring Break. These trips occur during the spring semester, generally for four days, including a weekend.

School Year Abroad

This program, founded in 1964, is sponsored by the three charter schools of Exeter, Andover, and St. Paul's. The heads of these three schools serve as permanent 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 are conducted during the school year in Beijing (China), Rennes (France), Viterbo (Italy), and Zaragoza (Spain). Its courses have been fully accredited by LFA and other schools within the consortium. 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 LFA's graduation requirements (e.g., U.S. History) 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 junior 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, 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. All College Board examinations are offered.

The programs in France, Italy, and Spain are designed for students going into their junior or senior year who have completed two years of French, Latin, or Spanish. The program in China is for students also going into their junior or senior year, but no previous study of Chinese is necessary for students who wish to spend their junior, senior or post-graduate year in Beijing. Each of these programs offers a full year of residence and study in the respective country. The program in China offers the option of a fall term as well. The cost of each program does not differ significantly from the cost of a year as a boarder at LFA. Financial aid is available. Catalogs and further information on application to the program may be obtained from the LFA SYA coordinator.

Graduation requirements

- Minimum of 5 classes per year
- 20 credits total

Arts:

- 1.5 credits entering as 9th graders
- 1 credit for transfer students

English:

- 4 credits

Math:

- 3 credits

Language-Science-History have a 3-3-2 requirement: students must take at least three classes in two of the disciplines and at least two classes of the remaining discipline.

- Science: Two laboratory sciences (All levels of Physics, Chemistry, Biology and AP Environmental Science)
- History and Social Science: World History II or AP World History, and US History or AP US History
- Modern and Classical Languages: Level 2 or higher of any language

Note:

- Students need at least two additional full-year credits to meet the minimum graduation requirements (one of these must be from the areas of math, science, English, history, or languages).

Athletics/Winter Musical Requirements:

- Students in 9th and 10th grade must participate in three seasons of athletics/winter musical per year.
- Students in 11th and 12th grade must participate in at least two seasons of athletics/winter musical per year.
- All students must participate in at least one team per year; the winter musical is equal to one PE season requirement.

ELL Advisees:

- 9th and 10th grade ELL advisees have not taken a History class and will be placed in either World History I or World History II with the option to petition for World History II or AP World History respectively.

Other:

- All students are assigned to a Health, Wellness & Community class, with whom they are required to meet every cycle. 9th and 10th graders meet two times per cycle, 11th and 12th graders meet one time per cycle.
- Study Hall: 9th graders have study hall one time per cycle.

Computer Science

Yearlong Courses

AP Computer Science Principles

Prerequisite: None.

[One Credit]

Open to: All grades.

This course offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the internet, cyber security concerns, and computing impacts. AP Computer Science Principles also gives students the opportunity to use current technologies to create computational artifacts for both self-expression and problem solving. Together, these aspects of the course make a rigorous and rich curriculum that aims to broaden participation in computer science. This course prepares students to take the AP Computer Science Principles exam.

AP Computer Science A

Prerequisite: None, though some programming experience is recommended.

[One Credit]

Open to: All grades.

This course is equivalent to a first semester, college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving design using the Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science A course curriculum is compatible with many CS1 courses in colleges and universities. This course prepares students to take the AP Computer Science A exam.

Electives - Fall Semester Courses

Computer Science with Dart & Flutter

Prerequisite: None.

[One-half Credit]

Open to: All grades.

This course enhances problem solving and design thinking. Computer Science with Dart & Flutter is an introductory computer science course for students with little or no programming experience. However, it is also appropriate for more advanced programmers who wish to learn a new language and create

interesting applications. In the course students will be exposed to one of the most popular ways to code apps for both iOS and Android in one development environment. The courses will be project based in which the students will be given projects to modify and also create their own projects. This is a hands-on course. The final project will be to create a mobile application which is of service to a community to which the student belongs.

Electives - Spring Semester Courses

Computer Science with React Native & Expo

Prerequisite: None.

[One-half Credit]

Open to: All grades.

This course enhances problem solving and design thinking. Computer Science with React Native & Expo can be taken as an introductory computer science course for students with little or no programming experience. However, it is also appropriate for more advanced programmers who wish to learn a new language and create interesting applications. In the course students will be exposed to one of the most popular ways to code apps for both iOS and Android in one development environment. The courses will be project based in which the students will be given projects to modify and also create their own projects. This is a hands-on course. The final project will be to create a mobile application which is of service to a community to which the student belongs.

English

Yearlong Courses

ELL Literature (Grade 9 or Grade 10)

Prerequisite: Placement Exam.

[One-credit]

This course will focus on literature, with special emphasis placed on reading, writing, speaking, listening, performing, synthesizing and analyzing. A variety of texts will be taught with both an historical perspective as well as cultural awareness. Students will form and support opinions through discussions and analytical essays. Performance skills and creative thought will be developed through reader's theater, presentations, and mock trials. The course will be reflected on a student's transcript as their English credit for the year.

ELL Rhetoric and Composition (Grade 9 or Grade 10)

Prerequisite: Placement Exam.

[One-credit]

This course focuses on the acquisition of the English language, with special emphasis placed on diction, syntax, speaking and listening, annotating and note taking, and advancing writing skills. Paragraph development including paraphrasing, sequence, and vocabulary will be emphasized. Students will complete a research paper process, which will include online database research skills on primary and secondary sources. This will culminate in a paper and presentation on various topics in connection with U.S. or World History. Throughout the course, students will develop their higher-level thinking skills while forming and supporting opinion through various types of writing and speaking. Writing will include exposition, literary analysis, argumentation, and creative responses. The class will engage in student-led Harkness discussions and debates. The course will be reflected on a student's transcript as their English credit for the year.

English 9: Survey of English and Literacies

Prerequisite: None.

[One Credit]

Open to: Freshmen

This course introduces the foundational skills of close reading, critical writing, and public speaking. The course explores literature in a variety of genres (short stories, poetry, novels, nonfiction essays, drama, etc.) and emphasizes skills in reading, writing, speaking, and performing as well as research and study skills. Students are taught to think with precision, specificity, and clarity in order to engage in sophisticated analysis. Writing assignments range from short analytical papers to a variety of personal and creative pieces. This course helps students build an understanding of how to construct and logically develop a formal argument in a sustained essay of three to five pages in length. Students will study literary terms and devices and varied genres/poetic forms in order to develop voice and authority in

their own writing. Special attention is paid to grammar, punctuation, and sentence structure. Students will also be introduced to basic public speaking skills that culminate in the presentations of an expository speech and a poetic performance.

English 10: American Literacies

Prerequisite: English 9.

[One Credit]

Open to: Sophomores.

Students in American Literacies will study the ways in which authors, playwrights, filmmakers, and visionaries have represented America's evolving and complex identities over the past four centuries. The course will develop students' facility for critical analysis and will reinforce the skills they need to be confident, empowered readers, writers, thinkers, speakers, and creators. It aims to cultivate students' enjoyment and appreciation of a wide variety of literary styles and forms. Students will develop their written voices through a variety of assignments in different genres, with instructors emphasizing writing as a process.

English 11: Global Literacies and Advanced Composition

Prerequisite: English 10.

[One Credit]

Open to: Juniors.

In our fast-paced age of information, we experience media of all kinds—art, advertising, film, novels, news broadcasts—at a pace never before, giving audiences worldwide access to experiences, cultural traditions, and literary and artistic forms beyond our own. How do we understand and interpret these texts coming from around the world? What do they tell us about the people they represent? And what can these cross-cultural encounters do to expand our understanding of ourselves and our own places in the world? In English 11: GLAAC, students read a repertoire of literature and film that addresses questions essential to the human experience from various cultural perspectives. Through this investigation, students will deepen their enjoyment and comprehension of literature and film; experience how culture shapes individual and communal identities; and strengthen their skill with literary and rhetorical analysis. Students will also further develop their skills as writers and speakers by experimenting with process, form, and style in composition and speech.

English 11: AP Language and Composition: World Cultures

Prerequisite: English 10 & Department Approval.

[One Credit]

Open to: Juniors.

This college-level course is designed to challenge students as readers, writers, and thinkers by exposing them to a variety of genres. Through fiction and nonfiction texts spanning genres and historical time periods, students gain a broad understanding of the ways in which various writers use resources of language and argumentative techniques depending upon their purposes and circumstances. Likewise, students are encouraged to adopt these rhetorical strategies to empower them as confident, flexible, and expressive writers. In addition to international novels and plays, texts will include nonfiction pieces such as essays, editorials, speeches, and memoirs. Examining images and film as texts---art,

photography, political cartoons, advertisements, and documentaries---students will extend their interpretive and analytical reach. In preparing for the AP English Language and Composition Exam, students will work on critical reading skills, rhetorical analysis, synthesis, and argumentation. In preparing for the AP English Language and Composition Exam, students will work on close, critical reading skills; rhetorical analysis; synthesis; and argumentation. This course is open to juniors who have earned an A- or higher in their current English class, demonstrated sufficient skills in reading and writing, and received the teacher's recommendation.

Senior Courses

*Note: Juniors may take a senior English course concurrently with their Grade 11 English course.

English 12: AP English Literature and Composition

Prerequisite: Global Literatures or AP Lang, and departmental approval.

[One Credit]

Open to: Seniors.

This is a college-level course for students who have demonstrated a keen interest in literature and success in analytical writing. The course is designed to further cultivate those students' critical capacities as readers and writers through studying a wide variety of authors, styles, and literary periods. Classes are predominantly discussion-based, with particular emphasis on the finer points of literary craftsmanship. The course requires reading with breadth and depth; students should expect 30-40 pages of nightly reading and frequent writing assignments. Students are evaluated on the basis of their mastery of content and terminology, the precision and clarity of their analytical writing, and the originality of a variety of forms of creative expression. While the course will prepare students for the Advanced Placement exam, its larger aim is to cultivate in them an appreciation of the lifelong value of engaged reading and lively critical thinking.

English 12: Advanced Journalistic Writing and Reporting

Prerequisite: Journalism I and II.

[One Credit]

Open to: Seniors.

In this course, leadership, project management and brand development/management as they relate to writing are taught as well as media literacy with an emphasis on accurate and equitable representation of populations in the news. In addition to taking a leadership role in the management and execution of assignments, students will also serve as writers, reporters, and commentators, focusing on honing their writing skills through pieces that require more advanced nuance, style, and reflection. This will include hard news, opinion, sports, digital media, and podcasting. Students will also need to independently monitor a consistently published workload, including written assignments and editorial responsibilities for the monthly paper, as well as creating written and multimedia content for a daily updated website. Some students will take on leadership roles such as an Editor in Chief or a Managing Editor for one of the sections of the print and digital editions of the school's newspaper, The Spectator. Students will be graded according to editorial leadership, ability to meet deadlines, and the quality and growth of their report writing. Throughout the course, students will engage in reading, writing, speaking, listening, and performing activities that will culminate in a required English Department Capstone Project that is publicly presented.

English 12: Debate

Prerequisite: None.

[One Credit]

Open to: Seniors.

There is a plethora of academic research that has shown the benefits of learning the skills of debate. These skills can provide life-changing, cognitive, and presentational changes. Former US Secretary of Education Arne Duncan noted that competitive debate produced "dynamic Americans proficient in the 4 "Cs" of 21st century skills—critical thinking, communication, collaboration, creativity, and also a 5th, civic awareness." This course provides a study of the techniques of policy debate, Lincoln-Douglas debate, public forum debate, parliamentary debate, and parliamentary procedure. Students are involved in detailed and extensive analysis of debate theory and technique with application of skills in competition. The course develops learners to see the power of deploying rational, reasoned arguments and compelling evidence in action. It enables them to elucidate their standpoint through utilizing rhetorical eloquence; instills in debaters a great sense of poise and confidence; and teaches them the skills of researching, organizing, and presenting information in a compelling fashion. The course will help prepare students to compete in interscholastic debates should they be interested. Throughout the course, students will engage in reading, writing, speaking, listening, and performing activities that will culminate in a required English Department Capstone Project that is publicly presented.

English 12: Literary Analysis

Prerequisite: None.

[One Credit]

Open to: Seniors.

This course challenges students to improve their written and oral communication skills, while strengthening their ability to understand and analyze literature in a variety of genres and from a variety of time periods, movements, and perspectives. Students will read a broad array of short stories, poetry, drama, novellas, novels, autobiographies, essays, and famous speeches. The course will look to local, regional, national, and global texts to analyze and evaluate, but the teacher or the class may choose a particular focus and concentration. However, readers will engage literature critically and scholarly not solely as critics looking for themes and symbols, but also as apprenticed and experienced writers searching for elements of craft and structure. Students will practice and develop greater facility with the most fundamental, yet most elusive components of the author's creative effort. The discovery of these components will yield a gold mine of instructional material to be used by students to generate original stories after reading and interpreting fiction sources. Classes will combine careful discussion of assigned readings with brainstorming, oral tellings, and writing exercises. Throughout the course, students will engage in reading, writing, speaking, listening, and performing activities that will culminate in a required English Department Capstone Project that is publicly presented.

English 12: Multiliteracies

Prerequisite: None.

[One Credit]

Open to: Seniors.

In addition to reading traditional texts, multiliteracies explores the impact and influence of mass media and popular culture by examining texts such as films, songs, video games, action figures, advertisements, clothing, billboards, television shows, magazines, newspapers, photographs, and websites. These texts abound in our electronic information age, and the messages they convey, both overt and implied, can have a significant influence on students' lives. For this reason, critical thinking as it applies to media products and messages assumes a special significance. Understanding how various texts are constructed and why they are produced enables students to respond to them intelligently and responsibly. This course will examine fact and opinion, the credibility of sources, and bias. This course will focus on different kinds of literacy skills in the 21st century, including media, film, and digital literacies. Throughout the course, students will engage in reading, writing, speaking, listening, and performing activities that will culminate in a required English Department Capstone Project that is publicly presented.

English 12: Senior Composition and the Writer's Workshop

Prerequisite: None.

[One Credit]

Open to: Seniors.

This class provides students the opportunity to develop the written word through a variety of skills, including—but not limited to— exposition, narration, persuasion, research, personal narrative and creative writing. The course focuses on writing as a process, both for fiction and nonfiction, with a strong emphasis on revision using the workshop model. Class discussions will incorporate a focus on the analysis and consideration of different writing styles and genres such as fiction, poetry, and drama. Students will participate in a wide variety of approaches to literacy development and apply what they learn to the art of writing creatively. Other activities will involve enhancing their ability to read and analyze selected models of prose writing as well as synthesize other authors' ideas. Throughout the course, students will engage in reading, writing, speaking, listening, and performing activities that will culminate in a required English Department Capstone Project that is publicly presented.

English 12: Speech and Intrapersonal/Interpersonal Communications

Prerequisite: None.

[One Credit]

Open to: Seniors.

Speech and Intrapersonal/Interpersonal Communications is the study of human symbolic behavior in many forms. The course will help to develop an awareness of intrapersonal and interpersonal communication, emphasize an understanding of how language is used to create change, cultivate rhetorical sensitivity in order to better connect with individuals and audiences, and help to develop competent delivery skills. The course will include activities such as rhetorical analysis, various public speaking opportunities ranging from debates to mock trials to mock interviews, and an introduction to practical, "real world" skills such as active listening, conflict resolution, and nonverbal communication.

Throughout the course, students will engage in reading, writing, speaking, listening, and performing activities that will culminate in a required English Department Capstone Project that is publicly presented.

English Electives

Debate

Prerequisite: None.

[One Credit]: Does not count toward English graduation requirement for sophomores and juniors.

Open to: Sophomores, juniors, and seniors.

There is a plethora of academic research that has shown the benefits of learning the skills of debate. These skills can provide life-changing, cognitive, and presentational changes. Former US Secretary of Education Arne Duncan noted that competitive debate produced "dynamic Americans proficient in the 4 "Cs" of 21st century skills—critical thinking, communication, collaboration, creativity, and also a 5th, civic awareness." This course provides a study of the techniques of policy debate, LincolnDouglas debate, public forum debate, parliamentary debate, and parliamentary procedure. Students are involved in detailed and extensive analysis of debate theory and technique with application of skills in competition. The course develops learners to see the power of deploying rational, reasoned arguments and compelling evidence in action. It enables them to elucidate their standpoint through utilizing rhetorical eloquence; instills in debaters a great sense of poise and confidence; and teaches them the skills of researching, organizing, and presenting information in a compelling fashion. The course will help prepare an individual to compete in interscholastic debates should they be interested. This course is open to sophomores, juniors, and seniors.

Journalism I

Prerequisite: None.

[One Credit:] Does not count toward English graduation requirement.

Open to: All grades.

Journalism I is designed to give students an introduction to several key journalistic skills and topics, including the responsibilities of being a journalist, journalistic ethics and law, news writing, features writing, opinion writing, sports writing, becoming a more powerful, more readable writer, interviewing, developing a nose for news, covering a beat, copy editing, writing headlines and photography basics. Students will also gain exposure and practice in the modern news world of digital media, including web editorial writing and the role of social media platforms and podcasting. Many of the lessons presented in class will focus on real world examples, using both professional publications and The Spectator as starting points for discussion. No previous experience is required; personal integrity and an eagerness to learn are required. After taking this course, students will be eligible to join and write for the newspaper. Students will try their hand in all genres of newspaper writing during the year. Students will be graded according to effort, meeting deadlines, and mastery of class topics.

Journalism II

Prerequisite: Journalism I

[One Credit:] Does not count toward English graduation requirement.

Open to: All grades.

This course will give students the opportunity to learn about journalism firsthand by producing a monthly newspaper, corresponding news website, and developing content for various social media platforms in a professional manner, just as they would in many of today's journalism and marketing positions. Every student focuses on producing the print publication, but also gains skills and experience working on the digital publication and podcasting concurrently. Students write in a variety of genres, from straight news writing to features and opinion writing. Students will cover beats around the school and will have real input into what goes into print or onto the web each month. Due to the team- and deadline-driven nature of publication, students on the newspaper must be willing to communicate proactively and openly about the status of their ongoing work with their classmates and the teacher and show a real commitment to meeting deadlines consistently. The class will help students develop the following skills: effective and powerful writing for publication, multimedia journalism, time management, making ethical decisions in a real-world setting, working with others to get jobs done, effective reporting, effective interviewing, and giving and receiving feedback. Students will utilize their basic photography, page design, and graphic skills introduced in Journalism I, while enhancing and building upon those skills throughout the year. The publication process will also afford opportunities to explore some concrete and theoretical topics of journalism, based upon the national trends or stories of the day.

Fine and Performing Arts

Arts Concentration

Arts Concentration

Prerequisite: Departmental approval.

[Non-Credited]

The Arts Concentration provides students the framework for an intensive and progressive study in the visual or performing arts. The three areas of study are: Theater, Visual Arts, and Music (Vocal, Piano, or Instrumental). For detailed information, speak with the instructor within your area of interest or the Fine Arts Department Chair.

Yearlong Courses

Acting I

Prerequisite: None.

[One Credit]

If you've ever wondered what it would feel like to act onstage, or if you've acted before and are looking for a structured exploration of the craft, this course is an approachable and methodical introduction to live performance. Students will finish the course comfortable and confident onstage, able to create a character, react to dramatic circumstances, use their voice and body effectively, and work on a creative team. This yearlong class focuses on auditions, fundamentals of voice and movement, interpreting monologue, beginning scene work and analysis, and ensemble movement, acting, and collaboration.

Advanced Acting

Prerequisite: Acting I or departmental approval.

[One Credit]

For students who have completed Acting I or who have substantial previous acting experience, this class is the challenging next step in contemporary performance technique as well as period styles. Students will deepen their ability to create and portray characters and to analyze scripts from an actor's perspective, to interact with directors and ensemble members in both scripted and devised processes, and to best understand their voice and body as instruments.

Advanced Studio Art

Prerequisite: Two or more consecutive visual arts courses or departmental approval.

[One Credit]

This is a rigorous course, which requires the production of an extensive portfolio. Through direct teacher instruction, individual and group critiques, and independent focused studio activity and

research, students will acquire the conceptual, technical, and critical abilities to execute their personal ideas and complete a portfolio which demonstrates mastery in concept, composition, and execution. A major gallery exhibition will be presented in late spring featuring work completed during the year. This course is open to juniors and seniors. Open Cressey hours in addition to class periods are required as part of the expectations of this course.

AP Art History

Prerequisite: World History II (including concurrent enrollment).

[One Credit]

This course offers a broad, global survey of the world's various artistic traditions from antiquity to present day. The course familiarizes students with some of history's most important achievements in the visual arts and architecture, as well as with larger patterns of artistic production and consumption that unfolded over time. Students also learn to recognize the ways in which art-making intersects with other cultural formations, such as religion, economies of exchange, and political ideologies among others, and in turn how these contexts can be used to construct historically-grounded interpretations of art objects. Assessments consist principally of exams and papers that will reinforce students' capacity for visual analysis and evidence-based observation and interpretation. Students with no studio art experience are welcome to take the course. This course has a Curricular Travel component to multiple cities in the United States.

AP Music Theory

Prerequisite: Departmental approval.

[One Credit]

In AP Music Theory students first learn fundamental rudiments of music reading, writing, and listening. Beginning with basic note identifications and music organization, students will progress through learning elements of harmony, rhythm, and musical structure. Second semester course content includes such topics as advanced harmony, analysis, composition, sight-singing, harmonic and melodic dictation, and form. Ear training skills are emphasized through written and aural topics. While musical study will focus on Classical and Romantic era music, jazz and popular styles will also be discussed.

Choir

Prerequisite: None.

[One Credit]

Choir offers students an intense and enjoyable vocal performance opportunity, featuring a wide range of repertoire from popular music to substantial choral works. Topics relating to music theory and history are taught in conjunction with ensemble repertoire. The choir performs four major concerts per year for Parents Weekend, Winter Concert, Oratorio Concert and Spring Pops Concert, and also sings for numerous other smaller events such as all school meetings, admissions events and alumni events. This course has a Curricular Travel component. Every other year the Choir travels to New York City or other US destinations to perform and attend concerts. Other off-campus trips are also taken throughout the year. The choir has established an impressive history of hosting Visiting Artist performances and master classes with Broadway composers and performers such as Jason Robert

Brown, Zina Goldrich, Marcy Heisler, Liz Callaway, Lucas Steele and Scott Coulter. Previous choral experience is encouraged but not required for participation in Choir.

Directing

Prerequisite: Advanced Acting or departmental approval.

[One Credit]

Working with actors, technicians, musicians, and writers to communicate a vision to an audience is complex, challenging, and deeply satisfying. Directing requires a focused and well-rounded interpretive artist and a skilled leader. This course is an in-depth study of theater directing and the collaborative process involved in producing a play. Focuses include script analysis, thematic research, concept development, and actor coaching. Students will be required to think creatively, act industriously, and communicate effectively. Participants will develop essential skills in collaboration and project management. They will work with peer actors, present directed work to the LFA community, and learn to process critical feedback from their collaborators and audience.

Electronic Music Ensemble

Prerequisite: Advanced Music Production or departmental approval.

[One Credit]

This course serves to give students an outlet for collaborative exploration, improvisation, and organized performance of both the traditional dance-oriented and the experimental forms of electronic music. Heavy emphasis is placed on group composition and improvisation, while iOS fluency remains paramount to an individual musician's success in the course. Students may expect to demonstrate the musical potential of various technologies, interpret notated pieces (for both solo and ensemble), collaborate with other musicians in composing new works for group performance, develop programming and sequencing skills using DAWs and Object-Oriented Programming tools, improvise within loosely structured pieces, and purposefully experiment with new musical forms. Electronic Music Ensemble musicians use both hardware devices and traditional desktop platforms such as Logic Pro X, FL Studio, or Ableton Live. A series of performances will be scheduled throughout the academic year.

Intermediate Ceramics

Prerequisite: Ceramics II or departmental approval.

[One Credit]

This course is a continuation of hand-building techniques, wheel throwing, and other advanced techniques. This class focuses on the creative approach to each project, starting with sketches and thumbnails, planning the construction of the complex pieces with both hand-building, wheel throwing and slip casting techniques. In addition, students will experience glaze mixing and testing with the goal of creating personalized glazes. They will also extend their ceramic/art history and theory research to fuel the development of content in their own artwork. This course meets three times per cycle for two semesters and may be taken as a 7th course.

Orchestra

Prerequisite: None.

[One Credit]

Orchestra is offered to students who have an instrumental performance background and a desire to perform great instrumental works together. Orchestra members must have at least a basic level of independent musical ability on their instruments, as well as experience playing in other large ensembles. Students will prepare music for performances while gaining musical skills from scale playing, basic music theory, and rhythm reading. While there is no set requirement for individual practice, students are expected to maintain a satisfactory level of performance on all assigned music. Orchestra performs at various times throughout the year including Parents Weekend, seasonal concerts, Graduation, and Move-Up Day. Other performance opportunities include Alumni Weekend, the LFA Spring Gala, and school assemblies. Additional performances may include, but are not limited to, off-campus concerts and adjudications. This course has a Curricular Travel component and travels domestically every other year.

Photography

Prerequisite: None.

[One Credit]

This course is an introduction to the overarching concepts and ideas of both film and digital photography and will also incorporate aspects of video, film, and animation. You will be introduced to a wide variety of tools and techniques surrounding photography and digital media including 35mm film and cameras, film scanners, mobile devices and apps, digital SLR cameras, film and paper development, and digital darkroom techniques. Ultimately, you will spend much of the time in the “making” phase. The class will focus on experimentation and understanding of basic concepts within these mediums. The goal is to get to a point where you can utilize the concepts and techniques in order to create more thought-provoking art pieces that express an idea and are visually appealing.

Piano

Prerequisite: None.

[One Credit]

This course is an introduction to piano playing and music concepts through a group-learning format. Students work together to learn beginning musical skills such as note reading and rhythm, and apply them daily in their musical efforts. Class activities include technique skills such as scales and arpeggios, group pieces, and solo repertoire. Regular assignments and playing assessments are given, and individual practice outside of class time is stressed to help develop playing ability. The highlight of each semester is a class piano recital performed for friends and family. This class is intended for pianists at the beginning level, and more advanced pianists should speak with the instructor about individual lessons.

2D Studio: Drawing, Painting, and Printmaking

Prerequisite: None.

[One Credit]

In this course, we will work from the basis of both imagined and observational two-dimensional art making in order to develop and express our ideas visually. We will work with a variety of drawing, painting and printmaking materials as we explore the development of artistic compositions. The course will focus on experimentation and understanding of basic concepts as we seek to discover, refine, and enhance our individual artistic styles. Moreover, this course is designed to promote experimental thinking and risk-taking within the two-dimensional medium. Art media might include: graphite, colored pencil, charcoal, pastel, watercolor, gouache, acrylic, and oil paint. We will explore various techniques for rendering the illusion of objects in space including the use of simple shapes, ellipses, construction lines, perspective, negative space, and the manipulation of light and shadow. The emphasis is on the acquisition of skills and the recognition and development of personal style.

Yearbook: Publications

Prerequisite: None.

[One Credit]

This course teaches students the skills required to create and produce a book which reflects journalistic standards. Students will also learn to write copy, captions, and headlines; take digital photography; create desktop publishing, and use appropriate technology tools for media production. In order to accomplish these objectives, the course will devote time to the following: desktop publishing with eDesign, incorporating advanced design principles such as grid design, and understanding layered coverage while developing student leadership skills and decision-making.

Electives - Fall Semester Courses

Ceramics I

Prerequisite: None.

[One-half Credit]

This course introduces students to creating and using the pottery wheel by sculpting clay by hand. Students will learn various techniques for adorning the surface of their clay objects using glazing and printmaking methods. Students will explore the historical significance of ceramics in various cultures as well as the aesthetic traditions of making functional pottery. Through this exploration, students will become proficient in a number of skills that are used when working with clay, including: throwing and trimming work on the pottery wheel, slab building, coiling, and basic surface decoration techniques.

Electronic Music I

Prerequisite: None.

[One-half Credit]

From beat production to experimental music, technology plays a foundational role in the creation of music today. In this class, we dive right in with simple tools that will have you making music regardless of your previous experience. As the semester progresses, you will learn the processes in order to take

your music to the next level while learning more advanced skills in production. A large portion of the technology in class will be provided, including access to professional-level music production software (*Logic Pro X*). iPads are required for use with TableTop, which is a free app that will require some in-app instrument purchases. By the end of the term, you will be ready to produce your own beats, program synths for EDM, or record original music.

Foundations in the Visual Arts

Prerequisite: None.

[One-half Credit]

This course will give students the foundational skills and content needed to pursue classes within the visual arts while exploring their creativity. Explorations will be made through the study of paintings, sculpture, ceramics, photography, printmaking, and experimental art. Students will engage in project-based learning opportunities and learn to critique work whilst decoding their own aesthetic expressions. Through projects, peer critique, and discussion, students will gain an understanding of the limits and potential of the various two- and three-dimensional media— including painting, ceramics, photography, printmaking, and multimedia—through experimentation and process. Close looking at works made by artists past and present will complement these projects to familiarize students with the principal design elements that artists use purposefully to elicit audience responses and introduce them to a common vocabulary for referring to those elements and their effects. Strongly recommended for all students interested in the Visual Arts.

Glass I

Prerequisite: None.

[One-half Credit]

This course is an introduction to the fundamentals using glass to create functional and sculptural art. Students will be introduced to glass kilns, programming computerized controllers, creating firing schedules, annealing, mold making, lost wax casting, coldworking, and fusing and slumping processes. As a class we will examine historical, technical, and contemporary practices in studio glass, as well as examining the work of a number of contemporary studio glass artists.

Public Speaking I

Prerequisite: None.

[One-half Credit]

There is no field of endeavor in which participants do not benefit greatly from effective skills in communication and persuasion. Confident bearing, ability to craft convincing arguments, and facility with language are universal keys to success. This course teaches methods, strategies, and physical techniques for speaking in front of an audience. Students will learn to formulate specific purpose statements, analyze and adapt to audiences, organize ideas, recognize rhetorical and logical strategies, choose language deliberately, construct outlines, and write and deliver credible presentations, becoming more effective speakers and more critical audience members.

Sculpture

Prerequisite: None.

[One-half Credit]

This course is recommended for students who want to gain a basic understanding of the concepts and materials used in creating three-dimensional artworks. Students will be introduced to a comprehensive range of sculpture techniques and will work with a variety of mediums including clay, glass, textiles, paper, plaster and metal. During the course of the semester students will become familiar with different art forms and practices used by various cultures throughout the world.

Theater Technology I

Prerequisite: None.

[One-half Credit]

This is an introductory course which investigates the technical aspects of designing and running a theatrical production. This course will introduce students to the basic principles of scenic design, sound design, and lighting design as well as other aspects of technical theater. Students will learn to safely use many of the tools and equipment required to set the stage for a performance. Students will be involved in all aspects of production, from conceptualization and construction to operation and management. As an aspect of the course, students will be required to serve as technical crew for many of the Academy's productions and special events.

Woodworking I

Prerequisite: None.

[One-half Credit]

This course is designed to expose students to the fundamental elements and skills of basic woodworking. Students will understand the safe, effective and efficient use of both hand and power tools, while emphasizing craftsmanship, planning, and finishing. As students progress, they will create various woodworking projects that reinforce and challenge skills while exploring areas of functional object making.

Writing for Performance

Prerequisite: English 9, Acting I or departmental approval

[One-half Credit]

Does the notion of seeing characters you've created come to life (played by actors) interest you? Have you ever considered writing your own one-act play? How about performing a monologue in your own voice or as a character as in *The Santaland Diaries* or *Miranda Sings*? Would you like to perform slam poetry, or create a scripted podcast like *Welcome to Nightvale* or *36 Questions*? Students in this course analyze classic or critically lauded text from each form (traditional representation one-acts, monologue, slam, and scripted podcast), identifying and discussing essential components and values including character voice, plotting, pacing, and "movement in space." Once familiar with the structure and requirements of the studied forms, students will develop a portfolio of their own work, responding to technique-specific writing prompts and utilizing daily feedback from peer writers, performers, and the instructor in a writing lab/workshop environment. In addition to creating theatrical artifacts, students

will gain critical insight towards the appreciation of scripted performance. Students will see and critique live performance on and off-campus and work by each student will be performed publicly by the authors or using student actors from within and without the class.

Electives - Spring Semester Courses

Advanced Music Production

Prerequisite: Electronic Music I or departmental approval.

[One-half Credit]

Once you are familiar with the creative process in Ableton Live, Soundtrap, and other production tools (from EM1), you are ready to delve into the world of advanced music production and collaborative music making. This class will focus primarily on development of musical style and composition technique through guided tutorials, discussions about basic music theory, and listening assignments. Students will engage in project-based learning activities that require them to compose a piece of music within certain parameters, then look to add their own ideas through the editing and mixing process. The class will include opportunities to share finished work with the community in a variety of venues.

Ceramics I

Prerequisite: None.

[One-half Credit]

This course introduces students to creating and using the pottery wheel by sculpting clay by hand. Students will learn various techniques for adorning the surface of their clay objects using glazing and printmaking methods. Students will explore the historical significance of ceramics in various cultures as well as the aesthetic traditions of making functional pottery. Through this exploration, students will become proficient in a number of skills that are used when working with clay, including: throwing and trimming work on the pottery wheel, slab building, coiling, and basic surface decoration techniques.

Ceramics II

Prerequisite: Ceramics 1 or departmental approval.

[One-half Credit]

This course builds on skills learned and practiced in Ceramics I. Students in Ceramics II move on to more challenging techniques in hand-building, including coil pots and large-scale slab construction. Wheel work focuses on mastering form and throwing larger, more complex work. An introduction and mastery of mold making and slip casting techniques will be discussed. Self-evaluation and weekly practice outside of class time are important parts of the learning process throughout the course.

Glass I

Prerequisite: None.

[One-half Credit]

This course is an introduction to the fundamentals using glass to create functional and sculptural art. Students will be introduced to glass kilns, programming computerized controllers, creating firing schedules, annealing, mold making, lost wax casting, coldworking, and fusing and slumping processes.

As a class we will examine historical, technical, and contemporary practices in studio glass, as well as examining the work of a number of contemporary studio glass artists.

Glass II

Prerequisite: Glass I.

[One-half Credit]

This course provides an opportunity for experienced Glass students to explore the sculptural, conceptual, and functional aesthetics of glass as an artistic media. Students will gain a thorough knowledge of glass chemistry to understand how to manipulate copper, sulfur, and lead bearing glasses to produce color reactions. As a class we will explore advanced techniques for working in kiln-formed glass such as; glass casting, mold-making, printing imagery on glass and triaxial blending to develop custom glass colors.

Introductory Printmaking

Prerequisite: None.

[One-half Credit]

This course is an introduction to the elements and principles of design as they apply to printmaking. Students will work with a wide range of materials and processes from block printing and linoleum cut to drypoint, silkscreen, and relief printing. Both press and non-press techniques will be explored and students will produce limited edition prints on various types of paper. An emphasis will be placed on technical skill, aesthetics, and on traditional and contemporary expressions of this art form. A drawing background is recommended.

Public Speaking

Prerequisite: None.

[One-half Credit]

There is no field of endeavor in which participants do not benefit greatly from effective skills in communication and persuasion. Confident bearing, ability to craft convincing arguments, and facility with language are universal keys to success. This course teaches methods, strategies, and physical techniques for speaking in front of an audience. Students will learn to formulate specific purpose statements, analyze and adapt to audiences, organize ideas, recognize rhetorical and logical strategies, choose language deliberately, construct outlines, and write and deliver credible presentations, becoming more effective speakers and more critical audience members.

Public Speaking II

Prerequisite: Public Speaking I.

[One-half Credit]

Public Speaking II builds upon the fundamental concepts of speech organization and presentation from Public Speaking I. The course will explore the composition and execution of a variety of extemporaneous speeches from elevator pitches to product reviews. Students will focus on staying audience-centered and benefits focused, organizing thoughts quickly and practically and staying enthusiastic but conversational in their delivery. The course will benefit students considering a variety

of education and career paths, including business, media, public policy, and the hard sciences.

Theater Technology II

Prerequisite: Theater Technology I.

[One-half Credit]

This course offers a more comprehensive study into the various elements of technical theater production, including lighting, sound, and scenic design. Continuing themes from the previous course, students will explore various production roles, and develop management and production skills while creating and implementing original technical designs. Students will be expected to draw on knowledge from the previous course while mastering new concepts and skills. Students will be involved in all levels of production, from conceptualization and construction through operation and management. As an aspect of the course, students will serve as technical crew for many of the Academy's productions and special events.

Woodworking I

Prerequisite: None.

[One-half Credit]

This course is designed to expose students to the fundamental elements and skills of basic woodworking. Students will understand the safe, effective and efficient use of both hand and power tools, while emphasizing craftsmanship, planning, and finishing. As students progress, they will create various woodworking projects that reinforce and challenge skills while exploring areas of functional object making.

Woodworking II

Prerequisite: Woodworking I.

[One-half Credit]

Woodworking II is a semester-long course designed to build upon the skills and concepts gained within the Woodworking I course. Students will use many of the same tools from the first course but with different operations expecting different results. This course will challenge students to develop compound problem-solving skills while working to develop self reliance, higher-order tool skills, ingenuity, and perseverance.

Writing for Performance

Prerequisite: English 9, Acting I, or departmental approval.

[One-half Credit]

Does the notion of seeing characters you've created come to life (played by actors) interest you? Have you ever considered writing your own one-act play? How about performing a monologue in your own voice or as a character as in *The Santaland Diaries* or *Miranda Sings*? Would you like to perform slam poetry, or create a scripted podcast like *Welcome to Nightvale* or *36 Questions*? Students in this course analyze classic or critically lauded text from each form (traditional representation one-acts, monologue, slam, and scripted podcast), identifying and discussing essential components and values including character voice, plotting, pacing, and "movement in space." Once familiar with the structure and

requirements of the studied forms, students will develop a portfolio of their own work, responding to technique-specific writing prompts and utilizing daily feedback from peer writers, performers, and the instructor in a writing lab/workshop environment. In addition to creating theatrical artifacts, students will gain critical insight towards the appreciation of scripted performance. Students will see and critique live performance on and off-campus and work by each student will be performed publicly by the authors or using student actors from within and without the class.

Global

The Global Department houses the Global Concentration, a two-year cohort program culminating in a Capstone Celebration. In addition, the Global Department provides innovative introductions or in-depth study of subject matter that is global in nature. These courses allow all students the opportunity to further individualize and deepen their global education while at Lake Forest Academy. Course offerings will rotate regularly as faculty from a variety of departments design creative, student-centered learning environments.

Yearlong Courses

Global Concentration: Cohort

Prerequisite: Application required. *This class must be taken as a 6th course. It may be taken as a 7th course.

[One Half-Credit]

Open to: Juniors.

In this two-year concentration, students begin working with a cohort of classmates. The cohort design is at the heart of the Global Concentration and is what makes it unique. Students will be part of this dynamic, student-driven cohort for both years of the program. This will allow students to collaborate, developing their skills and delving into a variety of topics. The cohort is designed to be purposeful, reflective, interdisciplinary and collaborative. Multiple off campus experiences are included in the program. Students must apply to the concentration in April of their sophomore year.

Global Concentration: Capstone

Prerequisite: Seniors who have completed Global Concentration: Cohort. *This class must be taken as a 6th course. It may be taken as a 7th course.

[One-half Credit]

Open to: Seniors.

In the final year of the concentration, students continue to work in their cohort. They devote much of their time to their individualized capstone project, working closely with a mentor to help them develop their project. Engaging with a community outside of Lake Forest Academy is a key requirement of each student's capstone. The Capstone Celebration, during which all students will showcase their work to the wider community, will take place in April of their senior year.

Electives

Global Perspectives: Short Stories & The Human Experience

Prerequisite: None.

[One-half Credit]

Open to: Sophomores, juniors and seniors

This course will focus on the craft of the short story. We will explore a variety of stories through reading, writing, and discussion. We will be reading stories from around the world, and analyzing them with a focus on literary analysis. We will look at narrative technique to understand how different writers have addressed issues of plot, character, place, theme, and the human experience. This course will introduce you to a wide variety of authors and types of stories. Through our use of literary analysis techniques, you will develop skills to help you answer questions about how stories are made, how they impact readers, what qualities make good stories, and how to differentiate between different kinds of stories. You will learn how stories can be special and meaningful reflections of particular places in the world and moments in history. You will also learn how to compare stories written at different times or in different cultures, and discover how literature, as art, has been a means for self-empowerment.

Health Wellness and Community

Yearlong Courses

Health, Wellness & Community 9

Required.

[Pass/Fail]

The freshman year program's primary focus is the transition and adjustment to the Academy by encouraging students to consider what it means to be part of the Lake Forest Academy community. Strategies for a successful transition and adjustment, both academically and socially, are explored. Students review school rules and expectations, centering on Lake Forest Academy's mission statement's four pillars. There is an emphasis placed on study skills, time management, and exam preparation. Students also look at the importance of multiculturalism and pluralism within our diverse student community. They discuss the idea of what makes up identity, and then each student creates a multimedia presentation that expresses what they view as being the most important parts of who they are. Regarding physical health, students receive information about nutrition and exercise, diseases and infections, safety education and disaster survival, first aid, suicide prevention, stress management, substance use prevention, and relationship education. This survey of topics allows students to identify personal strengths and areas of needed growth, which will help them be successful in the LFA community.

Health, Wellness & Community 10

Required.

[Pass/Fail]

The first semester of Sophomore Health, Wellness, and Community takes a strengths-based approach to building community. Students explore their sense of belonging and how they create belonging for others in the context of our classroom, the LFA community, and beyond. We then turn to the self-exploration of values as the basis of integrity and priorities. First Semester culminates with topics of study such as communication, cultural identity, empathy, courageous conversations, civil discourse, and ethical decision-making. The second semester in HWC begins with a focus on media literacy covering Fake News, Digital Footprint, Digital Citizenship, the Social Impact of Technology, and Consumer Engagement before moving into our mental health units. HWC students will collaborate and launch a service project, then reflect upon the experience of engaging in the community.

Health, Wellness & Community 11

Required.

[Pass/Fail]

The junior program encourages students to explore individual values, beliefs, perceptions, and interpretations. Class discussions focus on personal experiences and reflections that foster greater connectedness, communication of one's own perspective, and standing up for beliefs/values/etc. Students explore diversity and multiculturalism and how these concepts relate to who we are as

individuals, with an underlying focus on civic responsibility, leadership, and community-building. Students explore positive habits that increase motivation and protect them from vulnerabilities to their mental health during difficult transitions and challenges in life. Students are also introduced to human behavior complexities through topics such as Addiction, Eating Disorders, and Mood Disorders, Suicide Prevention, and discuss the stigma surrounding mental illness. Students examine their fears, values, goals, and priorities through written reflections and class discussions. Periodically, students work with the Office of College Counseling to prepare for College Night in September, the LFA College Workshop in the second semester, ongoing testing options, and commencement of the college search and application process.

Health, Wellness & Community 12

Required.

[Pass/Fail]

The senior program focuses on the college application process (first semester) and life after LFA (second semester) as we continue with efforts to cultivate mind, body, and spirit. Students continue to explore the integration of personal values and beliefs with personal choice, goal-setting, and goal actualization, emphasizing skills necessary for responsibly managing greater independence. The class also addresses specific issues involving college transition, including time management, academic policies, social pressures, and older adolescents' physical and mental health information. Our purpose is to help students develop the moral and ethical thoughtfulness, nuanced social consciousness, and leadership skills they need before transitioning to college. The senior year culminates with a final project presented to community members to wrap up the high school sojourn.

Electives - Semester Courses

The Science of Joy

Prerequisite: None.

[One-half Credit]

Open to: Juniors and seniors. Sophomores can also enroll based upon enrollment numbers.

The stress of being a student is very real. Scratch that. The stress of being a HUMAN is very real. Every day we're bombarded with both internal and external stressors. We're bombarded with homework, with responsibilities, with expectations. We're expected to be everything to everyone and then, with all of our "extra time," to figure out who we are. Life can be a lot to handle. But, the good news is, there are not only ways to handle the stress and busyness of daily life, but there are ways to thrive in the ordinary and in the every day. The Good Life prioritizes joy, balance, and well-being. It will teach you how to flourish when you feel overwhelmed, breathe when you feel bombarded, and succeed when you feel failure looming. This course will teach you life skills that will help you improve your physical, mental, emotional, and spiritual well-being based upon actual science.

History and Social Science

Yearlong Courses

World History I

Prerequisite: None.

[One Credit]

This course takes a thematic approach to the study of pre-modern world history and is a vital precursor to students' later history courses at Lake Forest Academy. Topics that will be explored in this course include comparative religions, economics, political science, human and physical geography, sociology, anthropology, and archeology. Students will also be exposed to research and writing skills that will be valuable for further history study. This course is designed for 9th grade students.

World History II

Prerequisite: None.

[One Credit]

This course examines the history of the world from 1492 to the present, especially the nature and transformation of civilizations in the Middle East, Asia, Africa, the Americas, and Europe. Through class work, reading, essay writing, and research, students explore the interaction between these regions, competing economic and political systems, developing nationalism and the rise of the West, and industrial capitalism. Students do not need to have taken World History I to enroll in this course. This course is not open to 9th grade students.

AP World History

Prerequisite: Departmental approval. Students who are not recommended may petition to the Department Chair.

[One Credit]

This course examines the history of the world from 1200 CE to the present with a review of world religions and philosophies that predate 1200. The purpose of the course is to develop greater understanding of the evolution of global processes and contacts, in interaction with different types of human societies. The course is built around six overarching themes: patterns and impacts of interactions among major societies, change and continuity across world history, impact of technology and demography, systems of social structure and gender structure, cultural and intellectual developments, and changes in functions and structures of states. Additionally, the course emphasizes the use of analytical reading and writing skills, a critical evaluation of primary and secondary sources, analysis of historiography, oral presentations, and discussion groups. After the AP exam in May, the culminating project for the year will be a student-centered research paper. Sophomores who have earned an A- or higher in both their previous year's English class and their previous year's History class meet the requirements for this course, but they still must be recommended by their current history teacher.

U. S. History

Prerequisite: World History II or AP World History.

[One Credit]

This course surveys the history of the United States from the colonial period to the present, including national independence, slavery, the Civil War, urbanization and industrialization, the expanded role of the federal government, and the involvement of the United States overseas. Students review the U.S. Constitution and the operation of federal and state governments, and explore the experiences of women, workers, and ethnic and racial minorities. In addition to traditional unit tests, students also engage in debates, presentations, creative projects and undertake a major research project. This course is recommended for juniors and seniors.

AP U.S. History

Prerequisite: World History II or AP World History and departmental approval. Students who are not recommended may petition to the Department Chair.

[One Credit]

This course covers similar topics to those in U. S. History but examines them in greater depth and devotes more time to considering changing historical interpretations. Instead of completing a single, large research paper, as is required in U.S. History, students in this course conduct smaller research projects throughout the year. This course also devotes time to preparing students for the sorts of questions that appear on the AP exam. Juniors and seniors who have earned an A- or higher in both their previous year's English class and their previous year's History class meet the requirements for this course, but they still must be recommended by their current history teacher.

Electives - Yearlong Courses

AP Economics

Prerequisite: None.

[One Credit]

Open To: Juniors and seniors. Note: Seniors will be given priority if this course reaches capacity.

This course is a college-level class that introduces students to the principles of economics and their application and relevance to current public policy issues. Students examine the development of the contemporary global economy and are introduced to the theoretical tools that help them analyze important economic and business issues. These tools include both micro- and macro-economic theory, which the students use to solve economic problems and construct a research paper on the international economy. Special attention is given to contemporary development concerns, such as issues in the economics of health, education, and the environment, as well as to the development of world trade and the expansion of global business. Specific time is also spent on practicing multiple-choice and free response answers in preparation for the AP examinations in micro- and macro-economics. This course is recommended for juniors and seniors who have earned a B+ or higher in their previous year's history course.

AP United States and Comparative Government and Politics

Prerequisite: None.

[One Credit]

Open To: Juniors and seniors. Note: Seniors will be given priority if this course reaches capacity.

This yearlong, college-level course examines the government institutions, politics and policy challenges of seven countries by uniquely blending both the AP US Government and Politics course and the AP Comparative Government course. In addition to an in-depth examination of American government and politics, this course studies the institutions and policy-making of six core countries: the United Kingdom, Russia, China, Iran, Mexico, and Nigeria. Employing a comparative approach throughout, the content of this course changes as the political landscape of the world changes. Students develop the tools to critically analyze these global political developments as they occur. Assessments include traditional AP-like tests, but students also regularly engage in real-life project-based learning including debates, simulations and current event briefings. This course prepares students to take two AP Exams in the spring: United States Government and Politics and Comparative Government and Politics. This course is recommended for juniors and seniors with a keen interest in global politics.

Electives - Fall Semester Courses

A History of Human Rights in the Americas

Prerequisite: None.

[One-half Credit]

Open To: Juniors and seniors. Note: Seniors will be given priority if this course reaches capacity.

This student-centered course will provide a wide-ranging survey of conceptual foundations and issues in contemporary human rights in the United States and the Americas. The class will examine the philosophical origins of human rights, contemporary debates, the evolution of human rights, key human rights documents, and the questions of human rights enforcement with a particular focus on the United States and the Americas. Violations of human rights appear in many forms. They span the gamut from torture and human trafficking (modern-day slavery) to poverty and war atrocities, from religious persecution to gender and racial discrimination. Students will examine a wide array of topics including: a history of human rights and the creation of the Universal Declaration of Human Rights, historical examples of human rights violations in the United States and the Americas, contemporary issues in human rights, civil and political rights, economic, social and cultural rights [health care, education, housing, environmental rights [healthy environment, clean air, respect for the Earth], and sexual rights. A curricular travel component over Spring Break to Cuba is a part of this course. Students must be enrolled in both semesters of Human Rights to participate in the curricular travel component.

Global Affairs

Prerequisite: None.

[One-half Credit]

Open To: Juniors and seniors. Note: Seniors will be given priority if this course reaches capacity.

The focus of the class will be current events/global issues that affect the student as a global citizen, a resident/citizen of the United States and a student of Lake Forest Academy. The purpose of the course is to make connections between current events and history, and to encourage students to become a

more active and engaged global citizen. Likely topics of study could include, COVID response worldwide, the evolving situation in Ukraine, the Civil War in Yemen. Topics of study will largely be student driven. Assignments will include nightly reading, presentations, projects, short papers (1-2 pages) and an end of the semester project. These assignments will help students to develop critical thinking skills, analytical writing skills, and a deeper understanding of their place in a globalized world.

Introductory Economics

Prerequisite: None.

[One-half Credit]

Open To: Juniors and seniors. Note: Seniors will be given priority if this course reaches capacity.

This course introduces the basic principles of economics and their application and relevance to public policy issues. Emphasis is placed on the development, current state and future position of the political economy of the United States in an international context as well as introducing basic theoretical tools to aid analysis of central economic issues and debates. The theory includes basic micro-economic models to explain market behavior and macro-economic models to explain price levels and output in national economies. The objectives of this course are to provide the basic tools for understanding fundamental economic issues and to stimulate thinking and consciousness on the central areas of debate.

Electives - Spring Semester Courses

A History of Global Human Rights

Prerequisite: None.

[One-half Credit]

Open To: Juniors and seniors. Note: Seniors will be given priority if this course reaches capacity.

This student-centered course will provide a wide-ranging survey of conceptual foundations and issues in contemporary human rights in regions outside of the Americas. The class will examine the philosophical origins of human rights, contemporary debates, the evolution of human rights, key human rights documents, and the questions of human rights enforcement with a particular focus on Africa, Asia, Europe, and Oceania. Violations of human rights appear in many forms. They span the gamut from torture and human trafficking (modern-day slavery) to poverty and war atrocities, from religious persecution to gender and racial discrimination. Students will examine a wide array of topics including: a history of human rights and the creation of the Universal Declaration of Human Rights, historical examples of human rights violations in the United States and the Americas, contemporary issues in human rights, civil and political rights, economic, social and cultural rights [health care, education, housing, environmental rights [healthy environment, clean air, respect for the Earth], and sexual rights. A curricular travel component over Spring Break to Cuba is a part of this course. **Students must be enrolled in both semesters of Human Rights to participate in the curricular travel component.**

A History of Chicago

Prerequisite: None.

[One-half Credit]

Open To: Juniors and seniors. Note: Seniors will be given priority if this course reaches capacity.

This course will incorporate academic texts, primary source music, the arts and architecture, politics, crime, sports, and more to thematically explore the history of Chicago. Chicago's moniker "The Second City" is now defunct; the city is the equal of any other in the United States and has the stories to prove it. From a small outpost on the edge of the new nation to its status as a world-leading metropolis, Chicago rewards those who take the time to learn about its history. Assessments will include tests, essays and projects.

Entrepreneurship

Prerequisite: None.

[One-half Credit]

Open To: Juniors and seniors. Note: Seniors will be given priority if this course reaches capacity.

This course introduces students to the nature of business and entrepreneurship. It will focus on what it takes to become a successful entrepreneur through the use of economic theory and the various skills one needs to start and run their own business. Students will learn how to identify, assess and develop a business plan as well as how to find and evaluate business opportunities. The role of marketing, accounting, risk assessment, and other mediums needed to become an entrepreneur will be covered extensively throughout the semester. The students will develop their own business models including a fast casual restaurant, a minor league sports franchise, a small business using a microloan, and marketing an original invention.

Mathematics

Yearlong Courses

Algebra I

Prerequisite: None.

[One Credit]

This course covers the concept of using variables to represent numbers and arithmetic equations. Students spend time developing arithmetic and problem-solving skills while covering the following topics: properties of real numbers, basic operations, writing and solving algebraic equations and inequalities with one and two variables, polynomials and factoring, first- and second-degree functions and their graphs, quadratic equations, rational expressions, and radical expressions. This course uses a web-based learning system called ALEKS (Assessment and Learning in Knowledge Spaces) as a resource to individualize instruction and reinforce new information. Also, a mathematics laboratory is utilized to allow students to have actual hands-on experience with technology and real-world mathematical modeling.

Geometry

Prerequisite: Algebra I.

[One Credit]

This standard course in geometry covers concepts of Euclidean geometry including definitions, postulates, and theorems. Areas of study include angles, parallel lines, congruent and similar triangles, polygons, the Pythagorean Theorem, trigonometry, circles, area and volume. The content is also explored through analytical geometry, and the students work to improve their algebraic skills. Additionally, the course includes a proof component. This course also uses a web-based learning system called ALEKS (Assessment and Learning in Knowledge Spaces) as a resource to individualize instruction and reinforce new information. A mathematics laboratory is utilized to allow students to have actual hands-on experience with technology and real-world mathematical modeling.

Geometry Advanced

Prerequisite: Algebra I and departmental approval.

[One Credit]

This advanced course in geometry covers concepts of Euclidean geometry including definitions, postulates, and theorems. Areas of study include angles, parallel lines, congruent and similar triangles, polygons, points of concurrence, the Pythagorean Theorem, vectors and orthogonality, trigonometry, circles, area and volume. The standard content is explored with greater depth than the regular Geometry course with a more of an emphasis on proofs and algebraic skills. This course also uses a web-based learning system called ALEKS (Assessment and Learning in Knowledge Spaces) as a resource to individualize instruction and reinforce new information. A mathematics laboratory is utilized to allow students to have actual hands-on experience with technology and real-world mathematical modeling.

Conceptual Algebra II

Prerequisite: Algebra I.

[One Credit]

This course looks at core topics in Algebra II and is paced with the students in mind. Topics are covered thoroughly and ample time is given for the students to master the content. Each semester has three units that build upon one another. Major topics include linear inequalities, linear equations, systems of equations, matrices, quadratics, polynomials, and radical functions. This course uses a web-based, artificially intelligent assessment and learning system (ALEKS) to help quickly and accurately determine each student's level of comprehension. It then allows for practice and assessment of areas of known weakness. Also, a mathematics laboratory is utilized to allow students to have actual hands-on experience with technology and real-world mathematical modeling.

Algebra II

Prerequisite: Algebra I and departmental approval.

[One Credit]

This course looks at topics both symbolically and graphically. Major topics include polynomials (linear, quadratic, and higher degree), rational functions, powers and roots, exponentials, logarithms, and trigonometry. Within these areas, transformations, systems of equations, inequalities, applications, and modeling are addressed. This course uses a web-based, artificially intelligent assessment and learning system (ALEKS) to help quickly and accurately determine each student's level of comprehension. It then allows for practice and assessment of areas of known weakness. Also, a mathematics laboratory is utilized to allow students to have actual hands-on experience with technology and real-world mathematical modeling.

Algebra II/Precalculus Advanced (APA)

Prerequisite: Geometry or Geometry Advanced and departmental approval.

[One Credit]

This course covers topics from Algebra II and Precalculus in a single year. Topics include inequalities, quadratic and polynomial functions, rational functions, exponents and logarithms, matrices, conic sections, sequences and series, polar coordinates, and trigonometry (including analytical trigonometry). This course is recommended for students who have demonstrated excellent analytical and mathematical skills in prior courses and the ability to understand and apply new concepts quickly. Students will need to devote significant time for daily homework and preparation. The course prepares students for placement in AP Calculus. This course uses a web-based, artificially intelligent assessment and learning system (ALEKS) to help quickly and accurately determine each student's level of comprehension. It then allows for practice and assessment of areas of known weakness. Also, a mathematics laboratory is utilized to allow students to have actual hands-on experience with technology and real-world mathematical modeling. This course is recommended for students who have earned an A- or higher in their previous math class.

Conceptual Precalculus

Prerequisite: Conceptual Algebra II or Algebra II.

[One Credit]

This course covers the topics listed in the Precalculus course description though at a pace and level less demanding than Precalculus. These topics include: linear, quadratic and polynomial functions, rational functions, logarithmic and exponential functions, and trigonometry. This course uses a web-based, artificially intelligent assessment and learning system (ALEKS) to help quickly and accurately determine each student's level of comprehension. It then allows for practice and assessment of areas of known weakness. Also, a mathematics laboratory is utilized to allow students to have actual hands-on experience with technology and real-world mathematical modeling. Upon successful completion of the course, students are prepared for Discrete Math, AP Statistics, or Calculus.

Precalculus

Prerequisite: Algebra II and departmental approval.

[One Credit]

This course covers a variety of topics: linear, quadratic, and polynomial functions, rational functions, logarithmic and exponential functions, trigonometry, vectors, systems of equations, sequences and series, and conic sections. This course prepares students for placement in AP Calculus. This course uses a web-based, artificially intelligent assessment and learning system (ALEKS) to help quickly and accurately determine each student's level of comprehension. It then allows for practice and assessment of areas of known weakness. Also, a mathematics laboratory is utilized to allow students to have actual hands-on experience with technology and real-world mathematical modeling.

Calculus

Prerequisite: Conceptual Precalculus, Precalculus or Algebra II/Precalculus Advanced.

[One Credit]

This course studies rates of change and their application to many physical and social phenomena, such as the velocity of a satellite or the profits of a corporation. This course also covers such topics as functions, limits, differentiation and basic integration, and emphasizes practical applications of calculus in business, economics, science and engineering. A mathematics laboratory is utilized to allow students to have actual hands-on experience with technology and real-world mathematical modeling.

AP Calculus AB

Prerequisite: Precalculus or Algebra II/Precalculus Advanced and department approval.

[One Credit]

This course examines such topics as limits, differentiation, applied maximum/minimum problems, related rates, transcendental functions, and techniques of integration. This course, which follows the AP syllabus, is designed to be roughly equivalent to a semester and a half of a college calculus course. This course is recommended for students who have demonstrated excellent analytical and mathematical skills in prior courses, and the ability to understand and apply new concepts quickly. Students will need to devote significant time for daily homework and preparation, and they commit to taking the AP examination. A mathematics laboratory is utilized to allow students to have actual

hands-on experience with technology and real-world mathematical modeling. This course is recommended for students who have earned a B or higher in their previous math class.

AP Calculus BC

Prerequisite: Precalculus or Algebra II/Precalculus Advanced and department approval.

[One Credit]

This course includes all topics covered in AB Calculus as well as infinite series, vectors, and polar and parametric functions. This course, which follows the AP syllabus, is designed to be equivalent to two semesters of a college calculus course. This course is recommended for students who have demonstrated excellent analytical and mathematical skills in prior courses, and the ability to understand and apply new concepts quickly. Students will need to devote significant time for daily homework and preparation. A mathematics laboratory is utilized to allow students to have actual hands-on experience with technology and real-world mathematical modeling. This course is recommended for students who have earned an A- or higher in their previous math class.

AP Statistics

Prerequisite: Algebra II.

[One Credit]

This course introduces the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students learn four broad conceptual themes: exploring data, planning a study, anticipating patterns, and statistical inference. Students enrolled in this course, which follows the AP syllabus, commit to taking the AP examination. Computer simulations, real world studies, and more allow students to have hands-on experience with technology and real-world mathematical modeling.

Electives - Fall Semester Courses

Discrete Math: Fundamentals

Prerequisite: Conceptual Algebra II or Algebra II.

[One-half Credit]

Open to: All grades.

This semester course is designed to cover the fundamental building blocks of finance. The course starts with simple interest and builds to more complex mathematics dealing with compound interest, annuities, both present (loans) and future value (retirement savings) money, and investing vehicles that can be used to build wealth over time. This course covers the “big ticket” items that make a huge difference in the students financial future. The course covers stocks, options, bonds, commodities, future contracts, and mutual funds. There are four projects that will be completed to reinforce the concepts being taught. They include: 1. a class presentation on bonds, mutual funds and commodities 2. a spreadsheet breaking down a complex paycheck 3. a class presentation of a complete budget plan 4. a stock market challenge.

Linear Algebra

Prerequisite: Precalculus or departmental approval.

[One-half Credit]

Open to: All grades.

Linear Algebra is an important branch of pure mathematics as well as a fundamental component of many important mathematical applications, spanning the fields of finance, cryptography, stochastic processes, web search, and image processing. This course will cover the basic introductory elements to Linear Algebra course that includes: matrix algebra; determinants; elementary vector spaces; and characteristics equations and eigenvalues. As time and resources permit, students will use computing technologies to create and explore applications of linear algebra.

Electives - Spring Semester Courses

Discrete Math: Applications

Prerequisite: Conceptual Algebra II or Algebra II.

[One-half Credit]

Open to: All grades.

This semester-long course takes on practical applications of finance. The course begins with a practical look at completing a US tax return including the mathematics behind tax schedules, 1040 forms and itemization. Automobile ownership is then covered from a mathematics and practical perspective. A basic statistical analysis using average, median, outliers, IQR, linear and exponential depreciation, and other analysis are used to determine proper pricing for automobiles and parts. This portion of the class is beneficial to those who did not take AP Statistics. A detailed look at automobile insurance policies is conducted to develop an understanding of what coverages mean and how they apply to the policy holder. The final part of automobile ownership is analyzing driving data, safety data, and the mathematics behind accident investigations. The course then covers independent living. Which includes: finding a place to live, learning how to read floor plans and the associated mathematics, the mortgage application process assessing both front and rear mathematical ratios. We also study the difference between single family homes, condos and cooperatives. We review some of the first semester concepts in the calculation of present value money for mortgages. Finally in the semester, we study the concepts of owning your own business. We take on detailed modeling which is done on graphing calculators to determine if our product will actually work financially. This model will conclude as a major final project.

Introduction to Data Science

Prerequisite: None.

[One-half Credit]

Open to: All grades.

This course explores the role of data in society and how it can be used to identify patterns and solve problems. Students will engage in project-based units on topics such as data visualization and modeling, data analysis, sampling, correlation/causation, bias and uncertainty, probability, and making and evaluating data-based arguments. This course uses the Stanford website, youcubed.org, as a framework for helping teach the ideas of data science. The projects introduce students to the main

ideas in data science through free tools such as Google Sheets, CODAP, Python and Data Commons. At the end of the course students will have a portfolio of their data science work to showcase their newly developed abilities.

Multivariable Calculus

Prerequisite: Calculus and department approval.

[One-half Credit]

Open to: All grades.

This course reviews limits, derivatives, and integrals from single-variable calculus and extends the concepts to functions of two or more variables. Topics of study include partial derivatives, directional derivatives and gradients, tangent planes and normal lines, extrema of functions of two variables, iterated integrals, double and triple integrals and applications. The course focuses on the understanding of these topics from analytical, numerical and graphical perspectives. A mathematics laboratory is utilized to allow students to have actual hands-on experience with technology and real-world mathematical modeling.

Modern and Classical Languages

NOTE ON ADVANCED STUDY: An advanced study option is available beginning in the second year of language study. These courses explore the material offered at each level in depth and may interest students who have a special interest in or facility for the language. Advanced courses are generally conducted predominantly in the target language. Enrollment in Advanced language courses is subject to departmental approval.

CHINESE

Yearlong Courses

Chinese I

Prerequisite: None.

[One credit]

This course introduces the standard Chinese phonetics system (Pinyin), basic grammatical structures, and functional daily language use. The course emphasizes the training of all four language skills (speaking, listening, reading, and writing) and develops an understanding of socio-linguistics and the socio-cultural factors that are important to cross-cultural communication. Students will also learn how to type in Chinese.

Chinese II

Prerequisite: Chinese I. Advanced study available.

[One credit]

This course continues to emphasize the training of all four language skills (speaking, listening, reading, writing) begun in the first year. Students will also develop a more sophisticated understanding of socio-linguistics and the socio-cultural factors that are important to cross-cultural communication. Besides continuing to work with basic grammatical structures and functional daily language, students will learn and practice calligraphy.

Chinese III

Prerequisite: Chinese II. Advanced study available.

[One credit]

This course reinforces what has been taught in Chinese II and continues the development of the four major language skills (listening, speaking, reading, writing) by introducing new and more sophisticated language structures and vocabulary. Students develop conversational skills by participating in discussions and role-playing. Compositions in Chinese are a regular part of the curriculum.

Chinese IV

Prerequisite: Chinese III. Advanced study available.

[One credit]

This course reinforces what has been taught in Chinese III and continues the development of the four major language skills: listening, speaking, reading, and writing. Intensive conversation, writing, and translation are required. This course places a particular emphasis on building vocabulary. Writing skills progress to include descriptions, storytelling, and the integration of extended vocabulary and sentence structure.

AP Chinese Language and Culture

Prerequisite: Chinese IV Advanced or III Advanced with departmental approval.

[One credit]

This course introduces advanced language structures, grammar functions, and related cultural knowledge. The class is conducted entirely in Chinese. The readings broaden the range of students' vocabulary and their understanding of the content, as well as improving students' language skills. The course is designed to provide students with opportunities for deeper and broader cultural understanding. Supplementary materials will also be used to help students prepare for the AP Chinese Language and Culture exam.

Chinese Cultural Studies: Prehistory - 20th Century

Prerequisite: Chinese IV Advanced or departmental approval.

[One credit]

This course is an immersion in Chinese culture, including social life, thought, history, current events, literature, music, and fine arts in Chinese-speaking communities worldwide. It is designed to deepen students' cultural and linguistic understanding and to help students further develop their language skills by applying their knowledge to real-world experiences. Developing appreciation and awareness of Chinese cultures is an integral theme throughout the course. In semester one, emphasis is placed on the major cultural and social developments, spanning from prehistory to the twentieth century. The second semester gives students an in-depth look at the lifestyles of modern Chinese people and the philosophies that guide their lives. The readings include articles, stories, essays, plays, movies, radio and TV broadcasts. Students will produce research projects based on specialized readings or different topics, which will be presented both orally and in written form throughout the two semesters. This course incorporates Curricular Travel to a Chinese-speaking country during Spring Break. While there, students will engage in a real-world immersion experience in Chinese life, language and culture by traveling to the Chinese-speaking world and focusing on a community service project. This course is most appropriate for non-native Chinese students who have successfully completed AP Chinese Language and Culture.

FRENCH & SPANISH

Yearlong Courses

French I and Spanish I

Prerequisite: None.

[One credit]

These courses introduce elementary grammatical concepts, present and past tenses, basic sentence patterns, and a number of idiomatic expressions. Major units emphasize practical daily situations, such as greeting people, expressing opinions, talking about the weather, counting and telling time, traveling, shopping and discussing family relationships. The courses also present a variety of cultural material.

French II and Spanish II

Prerequisite: French I/Spanish I. Advanced study available.

[One credit]

These courses further develop reading, aural comprehension, speaking and writing skills by introducing several new major language structures. These include the imperfect tense and the contrast between the two past tenses, as well as direct and indirect pronouns. Students acquire a broader vocabulary base of new words and expressions, often working in small groups to maximize use of the language and studying authentic material from the target languages, such as newspapers, films, and websites. Students complete projects relating to French or Spanish geography, politics, society and culture.

French III and Spanish III

Prerequisite: French II/Spanish II. Advanced study available.

[One credit]

These courses emphasize oral, written, and listening facility, bringing students to a higher level of language proficiency. Students learn additional and more sophisticated grammar and vocabulary; read advanced material such as newspaper editorials, literary prose and poetry; and compose essays in the target language. These courses further explore the customs, history, geography and culture of countries where the languages are spoken.

Heritage Spanish: Nuestro Patrimonio

Prerequisite: Departmental approval.

[One credit]

This course is designed for students who have grown up in a Spanish-speaking environment, exhibit strong listening and conversational skills and wish to further develop their communication in Spanish, especially reading and writing. The class will focus on writing, speaking, reading and listening skills, with particular attention to written Spanish. Students will deepen their knowledge of grammar, broaden their vocabulary, refine their spelling, and cultivate their ability to interpret and use both a formal and an informal register. The course will be grounded within a broad range of topics throughout the Hispanic world, with particular focus on Latinx and Hispanic cultures in the US, including students'

own experiences. Students will complete a variety of written and spoken assignments, including individual reflection and identity-based projects.

French IV Advanced

Prerequisite: French III.

[One credit]

This course focuses on comprehension, conversation, and listening skills, emphasizing recognition and use of complex grammar and new vocabulary in everyday speech. To increase proficiency, students participate in class discussion, listen to and watch authentic media, compose essays of many kinds, including opinion and creative pieces, and confront practical, everyday scenarios. Students read articles and short stories and participate in debates to gain awareness of relevant social issues. Students utilize a wealth of online resources, including TV5Monde, France 24, and Bien-Dire to maximize their linguistic and cultural understanding, to stay abreast of current events, and to effectively communicate in the target language.

Spanish IV Advanced

Prerequisite: Spanish III.

[One credit]

Spanish IV Advanced provides language practice in speaking, writing, listening comprehension, and reading. It serves primarily as preparation for AP Spanish Language and Culture. Students refine their language skills, acquire an advanced and nuanced vocabulary, and deepen their understanding of complex grammar. They also broaden their knowledge of Hispanic culture. Readings include a variety of authentic, unabridged written texts in Spanish, such as journalistic writing, essays and other works of literature, as well as films, songs, and visual art. Students complete a variety of written and spoken work tailored to authentic everyday experience, entirely in the target language. Major units include topics related to Identity, Daily Life, Society, and History.

AP French Language and Culture and AP Spanish Language and Culture

Prerequisite: French IV/Spanish IV Advanced or III Advanced with departmental approval.

[One credit]

This course provides rigorous practice in reading, writing, speaking, and listening for the purpose of gaining proficiency in the language. Students also study advanced grammar and vocabulary, read and discuss original texts of varying genres and styles, write compositions, give oral reports and gain cultural knowledge through videos, songs, and Internet research. Debates, Harkness discussions, recordings, and other conversational activities build fluency. Language proficiency is built within the context of the six themes prescribed by the AP curriculum: Global Challenges, Beauty and Aesthetics, Science and Technology, Family and Community, Personal and Public Identities, and Contemporary Life. Both AP courses, conducted entirely in the target language, build proficiency in the language while assisting students in preparing for the required AP language examinations.

AP Spanish Literature and Culture

Prerequisite: Spanish IV Advanced or departmental approval.

[One credit]

AP Spanish Literature and Culture is a college-equivalent course available for students who wish to pursue advanced language studies with a close examination of canonical works in Spanish, Spanish-American, Latino, and Chicano literature. The course provides an introduction to the major literary movements in the field of Hispanic literature. Students read original, unabridged works from the fifteenth century through the twenty-first century. The course includes a review of literary analysis, including genre-specific approaches, literary terms and some relevant literary theories. Students also study the socio-cultural contexts in which the course texts were written and many possible thematic links among them. There is a secondary emphasis on approaches to the visual arts of the Hispanic world and their connection to literary works studied in the course. Students develop their presentational, interpretive and interpersonal language skills through assignments in class and at home, including critical writing, listening and discussions. The class is conducted entirely in Spanish. This course is most appropriate for students who have successfully completed AP Spanish Language and Culture.

Civilization and Culture of Latin America

Prerequisite: Spanish IV Advanced or departmental approval.

[One credit]

Through the study of the history and formation of today's Latin American countries, students gain the background information that forms the base for their views of contemporary culture. The course provides students with an opportunity to study how Latin American cultures may differ from their own, giving them a better understanding of their own worldview. Many of the areas studied have vast gaps between rich and poor, and many areas are still mired in poverty due to racial, social, and political factors. In semester one, students are presented with a historical and cultural overview of Latin America. They explore the manner in which a history of conflicts and events has shaped the modern political and social structures in Latin America. Students have many opportunities to improve their verbal skills through oral presentations. Semester two builds on the topics studied in the fall by selecting a particular country in Latin America on which to focus. Students work to create an iBook on the selected country as their final project. This course has a Curricular Travel component to Latin America during Spring Break. This course is most appropriate for students who have successfully completed AP Spanish Language and Culture.

Le Monde Francophone (The French-Speaking World)

Prerequisite: French IV Advanced or departmental approval.

[One credit]

Language is not just about grammar, but a means of communication, of expressing oneself. What role does language play in identity? In this college-equivalent French course, students will study the people and cultures of this global language through readings, film, exploration of current events, and direct contact with French speakers around the globe, all of which will inform their understanding of the French-speaking world. The first semester of this year-long course will focus on the relationship between French and the storytelling tradition of the Griot in Western Africa (Senegal, Côte d'Ivoire,

Mali). Students will also learn about the extensive history between Algeria and France, as shaped by French colonization and Algeria's struggle for independence, and they will examine how the literary movement of Négritude was born out of a desire to reclaim black identity within a French-speaking framework. For the second semester, our focus will shift toward the Americas, specifically France's relationship with its overseas territories, as well as with Haiti. Through art forms, national education programs and politics, students will continue to learn about slavery, colonization and their aftereffects, as well as the current challenges of living in dual languages and cultures. Most importantly, students will learn to interpret the information in order to apply it to other global situations, perhaps some in their own countries. As our studies lead us through Canada, students will learn about history, differing cultural attitudes and the reasoning behind them, and the extent to which language is linked to identity. Finally, we will turn our attention to Continental France, and modern issues tied to immigration and diversity. The influx of North African immigrants to France has created fascinating cultural dilemmas, especially as second and third generation French citizens still question their own identity. This course has a Curricular Travel component during Spring Break and is most appropriate for students who have successfully completed AP French Language and Culture.

Electives - Fall Semester Courses

Conversation et culture dans le monde francophone (Conversation and Culture of the French-Speaking World)

Prerequisite: French III.

[One-Half credit]

In this semester-long intensive conversation course, students hone their speaking and listening abilities as they examine advanced vocabulary and linguistic structures in authentic contexts. Students further develop their speaking skills through real-life situation-based discussions, debates, performances, and oral presentations. Students work to develop the lexicon necessary to be comfortable in a multitude of pertinent real-world scenarios. Students learn to be pragmatic users of the French language by working on register and linguistic differences between the various francophone regions. Students also further refine their reading, writing, and literary analysis capabilities through in-depth study of culturally relevant journalistic articles, literary works, songs, and short films of various French-speaking countries. Students investigate and assess the linguistic nuances found in these texts and describe their historical foundation and social implications. Through investigation of cultural traditions, students analyze and examine the origins and contemporary significance of these traditions in the French-speaking world. The course is taught entirely in French.

Conversación y cultura del mundo hispano (Conversation and Culture of the Hispanic World)

Prerequisite: Spanish III.

[One-half Credit]

In this semester-long intensive conversation course, students hone their speaking and listening abilities as they examine advanced vocabulary and linguistic structures in authentic contexts. Students further develop their speaking skills through real-life situation-based discussions, debates, performances, and oral presentations. Students work to develop the lexicon necessary to be comfortable in a multitude of pertinent real-world scenarios. Students also further refine their reading, writing, and literary analysis capabilities through in-depth study of culturally relevant legends, myths, folkloric histories, songs,

journalistic articles, literary works, and short films of various Spanish-speaking countries. Students investigate and assess the linguistic nuances found in these texts and describe their historical foundation and social implications. Through investigation of cultural traditions, students analyze and examine the origins and contemporary significance of principal cultural celebrations and traditions. The course is taught entirely in Spanish.

Electives - Spring Semester Courses

Thèmes d'actualité dans le monde francophone (Current Events of the French-Speaking World)

Prerequisite: French III.

[One-half Credit]

In this semester-long current events, culture and conversation course, students focus their attention on learning intensively about the Francophone world and events that have occurred and will occur during the semester. Students begin by learning to identify the location and leadership of all French-speaking countries/territories throughout the world. Review of the colonization of these places prepares students to further delve into the “whys” of what happens there. Furthermore, students become “experts” on 2-3 countries and share information about them through journalistic articles. Students further develop their oral proficiency skills through real-life situation-based discussions, debates and oral presentations. Students work to develop the lexicon necessary to be comfortable in a multitude of pertinent real-world scenarios, including grammar reviews as necessary. The course is taught entirely in French.

Temas actuales del mundo hispano (Current Events of the Hispanic World)

Prerequisite: Spanish III.

[One-half Credit]

In this semester-long current events, culture and conversation course, students learn intensively about Latin America and events that have occurred and will occur during the semester. Students begin by learning to identify the location and leadership of all Spanish-speaking countries/territories in North and South America, the Caribbean, Europe and Africa. Review of the colonization of these countries prepares students to further delve into the “whys” of what happens in these countries. Furthermore, students become “experts” on 2-3 countries and share information about these countries through journalistic articles. Students further develop their oral proficiency skills through real-life situation-based discussions, debates and oral presentations. Students work to develop the lexicon necessary to be comfortable in a multitude of pertinent real-world scenarios including grammar reviews as necessary. The course is taught entirely in Spanish.

LATIN

Yearlong Courses

Latin I

Prerequisite: None.

[One credit]

This course introduces students to the fundamentals of Latin grammar, syntax, and vocabulary and emphasizes the development of sound reading and composition skills. Ancillary topics include a survey of Roman history from the early legends of its Trojan ancestry and its founding by Romulus to the establishment of the Empire under Augustus; a thorough study of Greek and Roman mythology with special emphasis on the stories of gods and heroes; a close look at Roman culture and technology and their enduring influence on the West and an introduction to the archeology of ancient Greece and Rome, including Troy and Athens. Students also develop English vocabulary skills through the study of Greek and Latin roots. A wide range of technological platforms will facilitate teaching, learning, and research.

Latin II

Prerequisite: Latin I. Advanced study available.

[One credit]

This course finishes the study of the fundamentals of Latin grammar, syntax, and vocabulary begun in Latin I, introduces the subjunctive mood and its advanced constructions, and emphasizes further development of sound reading and composition skills. Ancillary topics include a survey of Roman history from the establishment of the Empire to the fall of Rome, a review of Greek and Roman mythology with special emphasis on the stories of heroes, and a close study of the geography of the ancient Mediterranean. The course continues the development of English vocabulary skills through Greek and Latin roots, as well as the study of Roman culture, technology, and archeology—including the sites of Pompeii, Ephesus and Knossos—begun in Latin I. A wide range of technological platforms will facilitate teaching, learning, and research.

Latin III

Prerequisite: Latin II. Advanced study available.

[One credit]

This course immerses students in the unabridged prose and verse of genuine Romans, reviews the important concepts of Latin I and Latin II, and introduces new grammatical and syntactical elements as they appear in the readings. Developing reading fluency is the primary goal. Texts include selections from Catullus, Petronius, and Martial. Students will research the history, culture, geography, mythology, and private life that relate to the authors under discussion and will present their findings by teaching classes and leading discussions individually and cooperatively. A wide range of technological platforms will facilitate teaching, learning, research, and presentation.

Latin IV

Prerequisite: Latin III. Advanced study available.

[One credit]

This course explores the literature, history, and culture of the first century BCE, arguably ancient Rome's most complex, chaotic, and compelling period. Original sources, including Vergil's *Aeneid*, Caesar's *Commentarii de bello Gallico*, and Cicero's *In Catilinam*, reveal not only the trials of the late Republic, but also the triumphant birth of the Empire and the Golden Age. In addition to reading selections from these works, students will research the political and cultural life of the period, especially private life, and will present their findings by teaching classes and leading discussions individually and cooperatively. A wide range of technological platforms will facilitate teaching, learning, research, and presentation. Students who wish to take the AP Latin exam may prepare independently with the instructor.

Science

Yearlong Courses

Physics I

Prerequisite: None.

[One Credit]

This course is an introductory course for freshmen only that emphasizes a conceptual understanding of the fundamental principles that govern the universe. The students will explore motion, forces, energy, gravity, waves, optics, circuits, magnetism, and modern physics. The application of various skills and techniques learned in Algebra I and Geometry will be reinforced. Frequent laboratory activities and investigations will allow the students to comprehend abstract concepts better and improve their analytical skills. This course is for 9th-grade students

Advanced Physics

Prerequisite: Algebra II.

[One Credit]

Open to: Sophomore, junior, or senior transfer students only

Advanced Physics is an introductory course that investigates the fundamental principles of our universe with an emphasis on a conceptual understanding as well as a quantitative one. Students will be working regularly in the lab and will be expected to apply the concepts learned in the classroom to real-world situations. The topics covered will be linear motion, forces, energy, momentum, rotational motion and mechanics, pressure, waves, sound, optics, and electrostatics. This course is only recommended for students who have earned a B- or higher in their previous math class. Students who have taken Physics I should not enroll.

AP Physics C Mechanics

Prerequisite: AP Calculus AB or BC (including concurrent enrollment).

[One Credit]

This course delves deeply into the kinematics and dynamics of translational, rotational, and simple harmonic motion. This class is equivalent to a semester-long, college-level introductory physics course for scientists and engineers. The concepts of force, mass, acceleration, energy, and momentum will be thoroughly investigated. Other topics will include electric and magnetic fields, circuits, and optics. This course is recommended for students who have earned an A- or higher in their previous math class.

AP Physics C Electricity and Magnetism

Prerequisite: AP Physics C Mechanics and AP Calculus AB or BC.

[One Credit]

AP Physics C: Electricity and Magnetism is equivalent to the second semester of a college-level, introductory course for science and engineering majors. The topics covered will include static charges,

electric fields, Coulomb's Law, capacitors, DC circuits, RC circuits magnetism, Amperes' Law, RL Circuits, and Faraday's Law. Students will do hands-on laboratory work and in-class activities to investigate phenomena and use calculus to solve problems.

Chemistry I

Prerequisite: None.

[One Credit]

Chemistry I is an introductory course that studies the principles that determine the behavior of matter. It provides a lifelong awareness of both the potential and limitations of science and technology. Topics covered will be molecular bonding and structure, the mole, stoichiometry, solids, liquids and gases, the periodic chart, acids, and bases. Students engage in numerous laboratory investigations, problem-solving exercises, and group activities

Advanced Chemistry

Prerequisite: None.

[One Credit]

Advanced Chemistry is an introductory course that examines the same topics as in Chemistry I, but with more rigor and greater depth. Topics covered will be molecular bonding and structure, the mole, stoichiometry, solids, liquids and gases, the periodic chart, acids, bases, organic chemistry, and nuclear chemistry. Each student will develop independent thinking skills by applying the concepts learned in class to a variety of rigorous chemistry problems, both qualitative and quantitative. Numerous laboratory activities will build upon the ideas discussed in class. This course is recommended for students who have demonstrated strong mathematical and analytical skills in prior courses and who have earned a B+ or higher in Physics. Students who have already taken Chemistry I should not enroll.

AP Chemistry

Prerequisite: Chemistry I with departmental approval or a grade of B+ or higher in Advanced Chemistry.

[One Credit]

AP Chemistry offers a theoretical understanding of chemical reactions through an examination of molecular structure and rearrangement. Through numerous laboratory investigations, students gain a theoretical understanding of chemical reactions by studying calculations with chemical formulas, aqueous reactions, atomic structure, periodic properties of elements, chemical bonding, phases of matter, kinetics, equilibria, acid-base reactions, thermodynamics, and electrochemistry.

Biology I

Prerequisite: None.

[One Credit]

The Biology I course is a lecture-based class designed to give the student an introduction to the major concepts of Biology. The material is categorized into larger units to emphasize the connections between topics. First semester material focuses on the major principles of life and is divided into the units of; the Nature of Science, Ecology, Cell Structure, Cellular Metabolism, and Cellular Replication. Second semester builds off the first semester and introduces the students to Genetics, Heredity, Evolution, the

History of Life, Classification, and the Human Body. Labs, hands-on activities, and projects will also be performed throughout the course to enhance the lessons, and give the students the opportunity to apply the material. The student can expect a fair amount of reading with consistent reinforcement in class. Upon successful completion of the course, the student will have a better appreciation of the natural world around them and be prepared for any intro level biology course in college.

Advanced Biology

Prerequisite: B+ or higher in previous lab science.

[One Credit]

Advanced Biology is designed for the more aggressive student willing to go above and beyond the general understanding of the major topics of Biology. In Advanced Biology the students will be introduced to the same topics of Biology 1: scientific method of thinking and exploring the natural world, the compounds and traits of living organisms, the cell structures and cycles, cell metabolism, DNA structure and replication, protein synthesis, inheritance, life development, evolution, ethics, organ systems, characteristics of populations and ecology. Laboratory experiments and activities will be performed to enhance the lessons and challenge the students' understanding of the material. The students can expect a large amount of reading, which will be built upon in lectures. Upon completion of the course, the student will have a firm understanding of the concepts and know the material that will be covered in any intro level biology courses in college.

AP Biology

Prerequisite: Grade of A in Biology I and departmental approval, Grade of B+ or higher in Advanced Biology, or department approval.

[One Credit]

AP Biology gives students an advanced conceptual framework for modern biology and introduces science as a process rather than the accumulation of facts. Student-moderated discussion, group and individual activity, and extensive laboratory work integrate several major themes, including evolution, energy transfer, cell biology, biochemistry, and the relationship of structure to function. This course emphasizes the application of biological knowledge and critical thinking to understanding and developing ideas relating to societal issues and environmental issues dealing with biology. Students who commit to this course will be expected to have basic knowledge of cells and cell structures, macromolecules and chemical bonds, principle of inheritance, and energy transfer. Students will have guided reading to ensure they have this base knowledge in place before the first day of class. This course is recommended for students who have demonstrated superior diligence and analytical skills in prior science courses.

Engineering Robotics

Prerequisite: None.

[One Credit]

Open to: All grade levels.

This course provides students the opportunity to acquire the vital skills used when designing and building the robot for the annual First Robotics competition. The skills will include learning how to design parts using CAD software, generating prototypes using the 3D printers, safely using the mill and band saw to create structures, writing code to control a variety of sensors and actuators, and learning the fundamentals of wiring and electricity.

Principles of Engineering

Prerequisite: B+ or higher in Precalculus and Physics.

[One Credit]

This year-long curriculum focuses on the relevant application of science, math, engineering, and technology (STEM) concepts to electrical, mechanical, environmental, and biomedical engineering. Students will discover how modern engineers design and build new technologies using math and science, together with their ingenuity. Students will learn and apply the engineering design process during hands-on activities and projects. Students will learn how to use CAD software and use the 3D printer, write code to manage a variety of sensors and actuators connected to the Arduino, use KiCad to create printed circuit boards, and design and build basswood bridges. In addition, they will utilize critical thinking skills to design solutions to real-world problems. Techniques involving brainstorming, reverse engineering, and research will also be applied during this process. This class is open to seniors who meet the requirements and juniors with departmental approval.

Biochemistry Research I

Prerequisite: Chemistry.

[One Credit]

Open to: Juniors and Seniors.

Students engage in original research on a variety of topics to learn problem-solving skills, critical thinking and analysis. Some projects involve growing plants and screening them for the presence of certain antioxidants, which have the potential to be used as a natural colorant in food products and have been shown to have health benefits. In addition, students may use discarded objects or materials to create a product of higher quality (*upcycling*), such as for the synthesis of biopolymers, in particular bioplastics, or to extract fuel from the potentially discarded objects. The students will learn how to use a variety of different instruments and laboratory techniques, such as high-performance liquid chromatography (HPLC), lyophilization and gas chromatography (GC).

Course explanation not bolded.

Biochemistry Research II

Prerequisite: Biochemistry Research I.

[One Credit]

Open to: Seniors.

This class is a continuation of Biochemistry Research I. The student who has taken year one will continue their research using chromatographic or other methods, depending on the research project that they are performing. Students will prepare the samples themselves and collect and analyze the data using instruments and other mathematical techniques.

Anatomy and Physiology

Prerequisite: Biology.

[One Credit]

This course is designed for students who have already completed any level of biology and are interested in advancing their understanding of the human body. The course material will cover the structure, organization, and functions of the human body systems. The course starts by reemphasizing the structure of the cell and

major metabolic pathways, anatomical organization, and histology. From there the course moves into a study of the human body's major systems including: the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, immune, digestive, respiratory, excretory, and reproductive systems. Anatomy and Physiology is a lecture and discussion-based course accompanied by laboratory activities and dissections

Bioengineering Research and Design

Prerequisite: Advanced or AP Biology.

[One Credit]

This class will cover three topics that have the potential trajectory to become major driving forces in medicine, science, technology, industry, economy, and career growth. Genetic/molecular engineering (synthetic biology): Synthetic biology is making cells that manufacture molecules, or that metabolize wastes, or target pathogens/cancer. We will have an introduction to DNA technologies including CRISPR, restriction enzymes, and transformation of single-celled species. Biomedical engineering: Designing technologies to assist humans or animals. We will explore from the less invasive ideas to the more invasive ideas (hearing aids, insulin pumps, generated organs). We will have an introduction to antibody-based -, app/digital based-, and DNA-based screening of health, foods, or water. Environmental engineering: Designing systems to improve, stabilize, or extract things from the environment using methods that leave the environment better than it was found. We will have an introduction to different environmental problems and the solutions that have been generated, the flaws and advantages of those solutions, and the work that still needs to be done. The class will start with a background and introductory labs section to allow students to see some basic techniques used in each field and to understand the different fields. Then we will move into an exploratory and design section where students start to research current trends and then find motivation for problems they hope to address which will then lead to some design ideas. Finally, we will end with a development section in which students work to turn their design into a reality based on certain constraints set by the project, consumer, or location and time for use.

AP Environmental Science

Prerequisite: Chemistry, Biology, and Algebra II. Concurrent enrollment in Biology or Algebra II is possible with departmental approval.

[One Credit]

AP Environmental Science is a college-level course that integrates extensive lab work, fieldwork, and projects as part of the many units of study. The goal of AP Environmental Science is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. Topics include earth systems and resources, ecology, population, land and water use, energy resources and consumption, pollution, and global change. This course has a Curricular Travel component during one week of Spring Break. Additionally, there is a summer reading requirement for this course. This course will prepare students to take the Advanced Placement Exam.

AP Psychology

Prerequisite: None.

[One Credit]

Open to: Seniors.

Advanced Placement Psychology is a full-year college-level course. It is designed to introduce students to the systematic and scientific study of behavior and mental processes of human beings and other animals as defined by the College Board and the American Psychological Association. AP Psychology deepens the exploration into the human psyche and human behavior through the exploration of the history and varied approaches within psychology, brain function, sensation and perception, states of consciousness, human development and learning acquisition, motivation and emotion, cognition, testing, and individual differences, personality theory, abnormal behavior and treatment, and social psychology. The course will include a variety of assessments including student-led discussions, traditional tests, projects, papers, and presentations. The overall content covered in this course fulfills the College Board's requirements for AP Psychology, and students are expected to take the Advanced Placement exam for this course

Electives - Fall Semester Courses

Introduction to Astronomy

Prerequisite: Two years of lab science. This class runs every other fall, when Ancient and Modern Forensics are not offered.

[One-half Credit]

The purpose of this course is to present a broad view of the field of Astronomy. Course topics will be organized with an "Earth-Out" approach and include foundations of astronomy, historical perspective, origin of the Solar System, properties of planets, near-earth objects, life cycle and types of stars, galaxies, and the search for extraterrestrial life. There will be weekly hands-on labs, as well as sky-viewing opportunities throughout the semester. What's going on in the sky tonight? Join the class and find out.

Electives - Spring Semester Courses

Introduction to Natural Disasters

Prerequisite: Two years of lab science. This class runs every other spring semester, when Ancient and Modern Forensics are not offered.

[One-half Credit]

The purpose of this course is to provide an interdisciplinary overview of Earth's surface processes that directly impact humanity. This course will integrate principles in geology, meteorology, oceanography, and astronomy. We will explore the characteristics, causes, global distribution, estimated frequencies, and effects of the following natural hazards: earthquakes, volcanoes, flooding, landslides, sinkholes, thunderstorms and tornadoes, coastal hazards, climate change, wildfires, and impact events. We will also look at approaches to mitigate the effects on humans and how humans are exacerbating the frequency and effects of some of these natural disasters. By the end of the course, students will have an overview of Earth's natural hazards and how they impact societies and economies in a globalized world.

Experimental Psychology: Research and Design

Prerequisite: Physics, Chemistry, and Biology, 3rd course may be taken concurrently.

[One-half Credit]

Open to: Juniors and seniors.

This semester-long course introduces students to an overview of the methods by which psychologists test hypotheses and analyze data. Psychology is a science and follows the empirical method. A unique challenge of conducting psychological research relates to its primary focus, namely, human beings, and the complexity inherent to human behavior, motivations, emotions, and cognitions. Conducting psychological research, therefore, requires precise operational definitions, stringent experimental procedures, replication, and an acute understanding of ethics in research with human participants. In this course, students will gain experience in every step of the research process, engage in the creative process of transforming abstract psychological constructs into quantifiable variables, and conduct independent research related to their own observations and interests.