

HIGHLAND SCHOOL
UPPER SCHOOL COURSE OF STUDY
2018-2019 (dated 100218)

(Please note that courses offered are dependent upon student enrollment and staffing.)

CLASSICAL LANGUAGE

LATIN

Latin I (full year) (course number 412)

Latin I introduces the concepts of an inflected language, lays the basis for future language study, builds a sound basis of English grammar through the teaching of Latin grammar, and increases English vocabulary. The curriculum includes exercises to develop students' language skills. Extensive Latin passages, covered in class, are designed to increase students' translation skills, and frequent vocabulary quizzes expand their vocabulary in both English and Latin. The story line of the text offers a complete treatment of Roman life in Pompeii, Alexandria, Egypt, and Roman Britain. Complementing the language study are activities and projects on various aspects of Roman culture, selected field trips, the National Latin Exam, and various other state and national contests.

Latin II (full year) (course number 413)

Latin II is a continuation of the grammar and cultural study of Latin I. Latin II students begin the year with a review of the material from Latin I and then continue their study of grammar throughout the remainder of the year. Students build their translation skills through the story line of the text, which continues from Roman Britain to the great city of Rome. Students study the city of ancient Rome, including the Forum Romanum, Masada, and Roman engineering. During the second semester students look closely at the Roman Republic, emphasizing its contribution to western civilization. Complementing the language study are selected field trips, the National Latin exam, and other state and national competitions.

Latin III (full year) (course number 414)

Latin III students start the year with a short grammar review and begin working in Unit IV of the Cambridge Latin series, during which time they complete their formal study of grammar. Culturally, students study the mottoes, calendar, and baths. During the second semester, students move on to a study of Julius Caesar, his army, and his *Commentarii de Bello Gallico*, followed by a study of Roman emperors, at which time they read Pliny. Students compete in various state and national competitions, including the National Latin Exam.

Latin IV (full year) (course number 415)

In Latin IV, students begin the year with a short grammar review. Students then resume the

readings in the second half of the Unit IV text. Students examine the works of various authors, including Martial, Pliny, Vergil, Phaedrus, Catullus, Cicero, and Ovid. They learn how to scan dactylic hexameter and analyze poetry in terms of rhetorical devices and meter. Students participate in the National Latin Exam and various state and national competitions.

Latin IV Honors (full year) (course number 436)

After a short survey of Roman authors, including Phaedrus, Catullus, and Horace, Honors Latin IV students translate selections of Ovid's epic poem, the *Metamorphoses*, and his elegies the *Amores*. In addition to studying the poetic devices particular to Ovid, students conquer scanning dactylic hexameter meter and elegiac couplets. During the second semester, students translate selected poems of the lyric poet Catullus and Petronius' *Cena Trimalchionis*. Students complete the year by reading book I of Vergil's *Aeneid*, which gives future AP Latin students a jump start on the challenging AP curriculum. Students participate in the National Latin Exam and various state and national competitions.

Latin V (full year) (course number 418)

This class gives students the opportunity to add an extra year of foreign language to their high school transcript. Students translate selections from Virgil's epic, the *Aeneid*, and a comedy by *Plautus*. Students end the year by translating *Fabulae Mirabili, Harrius Potter et Philosophi Lapis*. Students compete in the National Latin Examination.

Latin V Honors (full year) (course number 452)

This class asks students to analyze and prepare college-level translations of several essential Latin authors, including but not limited to Vergil and Caesar. Students review upper level grammatical terms and rhetorical devices, and then they employ analysis skills to write convincing college-level essays. Several creative projects allow students to delve deeper into the texts and to understand the historical and literary context of the author. Unlike the AP curriculum, this course will provide more flexibility of textual choice as well as a reduced amount of Latin lines covered.

AP Latin (full year) (course number 416)

Students learn to read, understand, translate, and analyze Latin poetry and prose through careful preparation and translation of Latin readings. Students translate the selections from Caesar and Vergil which are required by the AP syllabus. They also reinforce the fundamentals of metrical analysis and the most common figures of speech in Latin lyric poetry. They practice writing essays on topics they encounter in their reading and complete several creative projects, such as skits based on certain scenes, analysis of passages, or illustrations of the story. They also learn more about the history, politics, and culture of the ancient Romans to deepen their understanding of classic works of literature from this period.

CLASSICS ELECTIVES

All courses use the elective grade scale unless otherwise noted.

Classical Mythology, The Gods (semester elective) (course number 445)

This class is an introduction to the Greek concept of creation and the primary mythological characters and most important stories of Greek and Roman mythology. Complementing course discussion and readings are contemporary films, documentaries, and selected field trips.

Classical Mythology, The Heroes (semester elective) (course number 444)

This class is an introduction to the heroes of ancient Greece and Rome, such as Heracles, Theseus, Perseus, Jason, and Bellerophon and the myths about them. This semester-long elective also includes a study of the Argonautica, the Trojan War, the Iliad, the Odyssey, and the Aeneid. Complementing course discussion and readings are contemporary films and documentaries.

COMPUTER SCIENCE

Advanced Placement Computer Science A (with permission) (full year) (course number 504)

This blended learning course provided by Edhesive is designed for students who are serious about programming and who can work independently with an online course format. JAVA requires a good mathematical background and strong problem solving skills. The course is designed to prepare students for the Advanced Placement Computer Science exam, level A. Topics include: simple, user defined, and structured data types; algorithm development, decisions, and loops; arrays, recursion, searches, and sorts; data abstraction; and classes.

Game Development (semester elective) (course number 508)

For the first time, gaming has driven the development of the latest microchips, taking over from Defense. The game industry is a multi trillion dollar business. This course is a single semester introduction to game development. Basic ideas like graphics, audio formats, storage, design and development are reviewed. Students create 2D and simulated 3D games using concepts and creativity; they program using “point and click” tools. Logical programming and object oriented programming concepts are emphasized.

Introduction to Programming (semester elective) (course number 527)

This course serves as an introduction to computer programming using Alice 2.0. Alice 2.0 is designed for students at the high school or college level. Alice introduces object-oriented programming in a modern programming environment. Students learn fundamental programming concepts such as developing software methods, programming with logical structures, and creating event-driven software while creating 3D animated worlds. This course is a prerequisite to Programming I.

Open Programming Lab (with permission) (full year) (course number 533)

Open Programming Lab is offered to students at any grade level who wish to pursue computer programming and who can work independently. Students define their own computer science programming curriculum by taking an approved online class of their choice. Students proceed at their own pace with defined bench marks. Students may enroll in this class multiple times, each time taking a different approved programming class. The class will be shown on the Highland transcript with an OL designation and credit will be awarded, but the grade earned will not be

factored into the Highland GPA. Students are responsible for all fees associated with the online class they are pursuing.

Programming I (full year) (offered to students who have completed Introduction to Programming) (course number 521)

This course is a continuation of computer programming. Students explore advanced topics in Alice 2.0 including lists, list processing, arrays, and recursive algorithms. Students then use this foundation to further their programming and problem solving skills using Python, a general purpose, dynamic language.

Simulations (semester elective) (course number 510)

Computation is used in a wide array of contexts to simulate the real world and thereby derive insight into real world problems. This course introduces students to various software packages that simulate some aspect of the world. Current software packages include: Capitalism II, which simulates the business world; Real Lives, which models the lives of people from different parts of the world; Zoo Tycoon, which challenges the students to design, build, and manage a zoo including animal behavior; and SimCity 3000, which offers a realistic 3-D environment with businesses and other facilities to control. The text, Entrepreneurship, teaches business topics in a more traditional way, and is intended to support Capitalism II.

Technology for the 21st Century (semester elective) (course number 523)

Today's students are digital learners. This class is designed to prepare students for 21st century learning. Students explore the role of technology in a global society as well as what it takes to be information, media, and computer literate locally and globally in the 21st century. Students also examine how to use applications/tools unfamiliar to them, Web tools, online help, as well as gain an understanding of current computer terminology.

ENGLISH

English I (intended for freshmen) (full year) (course number 001)

English I is a foundations course, presenting groundwork texts, themes, and skills that are essential to the student's high school and college careers. The major works are selected to expose students to archetypal ideas and characters on which Western literature and thought is largely based, and touch on fundamental questions of existence such as one's understanding of self in community and the nature of good and evil. Narrative, responsive, and analytical writing is explored, in addition to special emphasis on responsible methods of reporting research. Vocabulary and grammar are taught both in context of student work and according to structured texts. Core literary texts include *Romeo and Juliet*, *The Oedipus Cycle*, *Lord of the Flies*, and *The Odyssey* (Fitzgerald translation).

English I Honors (with permission) (full year) (course number 002)

English I Honors covers much of the same material as English I, but more is expected from students in this class and they are assessed by higher standards of growth. In addition to the

works taught in English I, Honors students read *The Odyssey* (Fagles translation), *Maus*, and *The Penelopiad*.

English II (intended for sophomores) (full year) (course number 003)

In English II students develop an appreciation of different genres of world literature as they hone their critical thinking, reading, and writing skills. Typical units covered include short story, novel, drama, poetry, and nonfiction. Core literary works covered include *Beowulf*, *Things Fall Apart*, *Julius Caesar*, and *Persepolis*. Students improve their writing skills by following the writing process of prewriting, writing, and revision. Students use great literature as models of writing and write for different purposes including narration, persuasion, and exposition. Grammar, learned by students in lower and middle school, is now be used by students for self-editing to improve the clarity, unity, and fluency of their writing. Through discussions, oral projects, and dramatic presentations, students enhance their listening and speaking skills.

English II Honors (with permission) (full year) (course number 004)

English II Honors covers much of the same material as English II, but more is expected from students in this class and they are assessed by higher standards of growth. Students explore the relationship, in a given society, between the community and the individual. They also examine the ways in which a culture's concerns are reflected in its literature. In addition to the works taught in English II, Honors students read *Grendel* and *Hojoki*.

English III (intended for juniors) (full year) (course number 011)

This course provides students with a wide range of historical, social, and cultural perspectives on what it means to be an American and, through culturally diverse readings, presents complex definitions for the terms "American" and "literature." Texts include *The Great Gatsby*, *A Raisin in the Sun*, and *The Things They Carried*. Students focus on sentence and paragraph structure, rhetorical strategies, and close reading. The coursework includes a variety of writing assignments, with particular emphasis on the literary analysis essay.

English III Honors (with permission) (full year) (course number 010)

This course covers much of the same material as English III, but more is expected from students in this class and they are assessed by higher standards of growth. In addition to the works taught in English III, Honors students read selections from early American literature and additional texts such as *Their Eyes Were Watching God* and *Ethan Frome*.

Advanced Placement English Language & Composition (with permission) (full year)
(intended for juniors) (course number 006)

This intense course serves two distinct but complementary purposes. As AP language and composition, it requires students to use a college-level mastery of language to critically deconstruct non-fiction prose and compose analytical and artful responses that reveal a comprehensive world view. The writing emphasis is persuasive analytical, with additional attention given to responsible research practices. Vocabulary is studied in context and according to a structured text; grammar is reviewed as needed. All AP students must sit for the exam in May. Preparation for the exam begins in the first quarter and continues through April.

The texts studied for the above purposes are American, including the texts listed for English III Honors and supplemental readings in literary non-fiction. As American Literature, the course works chronologically to construct the development of our nation's thought and understanding of literature through all its major periods and styles. Students are exposed to a wide range of historical, social, and cultural perspectives on what it means to be an American and wide-ranging definitions of the American Dream.

English IV (intended for seniors) (full year) (course number 007)

English IV offers a brief survey of British literature including *Hamlet*, *The Curious Incident of the Dog in the Nighttime*, and *Frankenstein*. Then students spend a semester previewing skills they should expect in a freshman comp class. Students engage in high-level dialogue regarding the assigned readings and respond to the texts in both personal and analytical writings that proceed from draft form to a final product. Improving the technical use of the English language and advancing vocabulary skills are additional goals of this course. Readings include fiction, nonfiction, poetry, and drama.

English IV Honors (with permission) (full year) (course number 009)

English IV Honors covers much of the same material as English IV, but more is expected from students in this class and they are assessed by higher standards of growth. In addition to the works taught in English IV but in lieu of work on freshman comp, Honors students read additional texts that offer a sweeping survey of British literature.

Advanced Placement English Literature & Composition (with permission) (full year) (intended for seniors) (course number 008)

This intense course is structured to prepare dedicated students for the AP English Literature and Composition exam in the spring and to further train them as learners for their college experience. As part of this process, students read, study, and critically respond to a survey of British literature, including many of the classics from the Medieval Period to Contemporary times. Core texts include *Hamlet*, *Mrs. Dalloway*, *The Picture of Dorian Gray*, and *Pygmalion*, among others. This response "to" and "from" fiction, nonfiction, drama, and poetry is done both orally and in writing. High-level dialogues, including Socratic Seminars, aid students in exploring all components of the literary experience. Literature logs, response essays, and longer analytical papers help develop the students' readiness both for the exam and for the many writing assignments that await them in college and beyond.

ENGLISH ELECTIVES

All courses use the elective grade scale unless otherwise noted.

All English electives are open to sophomores, juniors, and seniors unless otherwise stated.

9th Grade Intensive (semester elective offered to freshmen with a documented reading disorder AND either a documented Language Waiver or writing disability as determined by a qualified clinical psychologist) (pass/fail) (course number 096)

During the Intensive resource period, students receive direct, specialized small group instruction from a Learning Specialist in a resource setting. They focus on critical reading skills, active reading strategies, comprehension, writing skills, organization, and the process for completing assignments from their History and English classes. Technology specific to each student's needs are incorporated throughout with an emphasis on gathering information and formulating a final product.

10th Grade Intensive (semester elective offered to sophomores with a documented reading disorder AND either a documented Language Waiver or writing disability as determined by a qualified clinical psychologist) (pass/fail) (course number 097)

During the Intensive resource period, students receive direct, specialized small group instruction from a Learning Specialist in a resource setting. They focus on critical reading skills, active reading strategies, comprehension, writing skills, organization, and the process for completing assignments from their History and English classes. Technology specific to each student's needs are incorporated throughout with an emphasis on gathering information and formulating a final product.

Black Voices and the African American Literary Tradition (semester elective open to juniors and seniors) (course number 078)

The African-American experience spans four hundred years from the European settlement and establishment of the slave trade to the present day. This survey course focuses on the voices of black Americans as they wrestled with issues of race and freedom in their writing. The course, then, is organized around African American representations of self and the way in which literature serves as a site for this struggle of definition. Organized chronologically, the first weeks cover the historical/literary background of the modern black experience, while the bulk of emphasis rests on the past one hundred years, from the Great Migration and the Harlem Renaissance to the twenty-first century. In addition to placing the readings in their historical and political contexts, we pay particular attention to the way in which issues of gender, sexuality, and class participate in a literary construction of race. While the primary emphasis is on fictional representations of the black experience, texts also include non-fiction and poetry.

Creative Writing (semester elective) (course number 016)

This writing-intensive course offers students the opportunity to explore their narrative voices and receive personal, critical feedback from peers and the instructor. Studying a wide variety of texts, students develop the ability to articulate what makes writing powerful and to infuse their own prose and poetry with the techniques of the masters. Students develop a writing portfolio, and opportunities to submit writing to competitions and publications are presented. This elective combines writing workshop and class instruction models.

The History of the Short Story (semester elective) (course number 088)

This course will study the most explosive, artistic, and modern of literary forms: the short story. Students taking the course will read a wide range of short stories, from Gogol and Poe to the fiction being published currently in *The New Yorker* and *McSweeney's*. Along the way, students will analyze how short stories communicate their meanings to readers. In particular, students will

return to an essential question: How do short stories use language and characterization differently than novels do? The course is designed for students who wish to strengthen their writing and improve their skills of literary analysis. Students will complete a number of writing exercises, including stylistic imitations, short scenes, and literary analysis. Class time will be devoted to discussion, writing activities, and workshopping student writing. For the course's final evaluation, students will compose an original short story. Since this is a course on a form of literature, prospective students should be willing to complete reading assignments and writing exercises as homework.

Introduction to Western Philosophy (summer class for semester credit) (course number 091)

This course seeks to introduce students to the major thinkers in the Western philosophic tradition. Students will mainly engage with primary source writings from thinkers such as Plato, Augustine, Descartes, Kant, and Sartre. Students will also study secondary source material about both philosophers' lives as well as their thoughts. The goal of the course is to introduce students to philosophical thinking and so begin to produce young citizens who can engage problems critically, creatively, and actively. In order to accomplish this goal, we will trace the "big questions" of philosophy—Why are we here? Is there a purpose to our lives? How should we live? What makes us human? How can evil exist?—in order to understand how others have thought, and, ultimately, to begin to formulate our own coherent responses.

Media Literacy (semester elective) (course number 076)

The impetus for offering this elective stems from the desire to expand the notion of "text" beyond the traditional printed word to other media, including photographs, film, television, advertising, and the internet, with the goal of preparing Highland students for life in a complex, media-rich, technologically dynamic environment. Using higher order critical and creative thinking skills, students will explore issues of media influence, examine advertising from a critical perspective, and reflect/analyze visual approaches to narrative, thereby enabling them to "read" media more effectively. In addition to photographs, advertisements, and websites, content possibilities may include, but are not limited to: Ken Kesey, *One Flew Over the Cuckoo's Nest* (book and film); A. Huxley, *Brave New World*; Jean Kilbourne, "Killing Us Softly: Advertising and the Image of Women;" "Consuming Kids: The Commercialization of Childhood."

Myth and Legends (semester elective) (course number 024)

This elective provides an overview of multi-cultural mythologies with the exception of Greek and Roman classical mythology. Ancient Egyptian, Celtic, Norse, Indian/Hindu, and other mythologies are studied. Topics to be covered include: Development and Purposes of Myth, Types of Myth, Deities and Lesser Spirits, and Mythological Heroes. Students focus their study of legends on the legend of Dracula.

Reading/Writing Lab (summer class for semester credit) (course number 092)

Taught by history and/or English teachers, this course is designed for students who need additional work on critical reading and writing skills for greater success in humanities classes. Skills emphasized include annotating, using graphic organizers, reading for understanding, and

writing in a variety of styles (persuasive, narrative, expository). Note that this course may be used to remediate a low English or History grade per Highland's remediation policy.

Reading/Writing Lab for international students (semester elective offered to international students in any grade) (pass/fail) (course number 093)

This course is designed to support students for whom English is a second language and who need additional work on critical reading and writing skills for greater success in English classes. Skills emphasized include annotating, using graphic organizers, reading for understanding, and writing fluency.

Speech (semester elective) (course number 021)

In speech or forensics students learn the art and skill involved in oral presentations. Students develop self-confidence through oral presentations and in-class competition. Students learn to develop and apply criteria to evaluate, appreciate and respond to oral presentations by others. They learn to work within time constraints and thematic possibilities of selected pieces of literature. Finally, they demonstrate the ability to analyze literature and communicate their understanding through their own vocal physical expression.

Writing Theory and Pedagogy (semester course for recommended juniors and seniors in Honors or AP English) (pass/fail) (course number 079)

This course explores fundamental theories of teaching writing, with particular emphasis on the role of the peer tutor, or "writing consultant." Students learn to read the work of their fellow high school students with a critical eye and to provide constructive feedback through written commentary. Students also learn to hold one-on-one conferences with their peers in which they assist writers with the editing process, and especially argument development, essay organization, and clarity of language. Although such study will likely help students improve their own writing, this is not primarily a writing course, but rather a course for strong writers to learn to assist other writers of all levels, abilities, and backgrounds.

Students who complete this class are encouraged to serve as "writing consultants" in the following semester. Being a writing consultant requires them to spend one of their study halls in the Library being willing to help peers with their papers. Given the significant time commitment, the writing consultants will earn an internship on their transcript for that semester (but no credit or grades).

EXPERIENTIAL AND SERVICE LEARNING

Leadership Studies I (semester elective offered to sophomores, juniors, and seniors) (pass/fail) (course number 730)

This class is one of two electives that will satisfy the coursework component of the Certificate of Leadership Development program. Throughout the course, students will reflect on their own leadership strengths, values, and styles, learn different leadership models through the study of historical and current examples, and consider ethical issues, communication styles, and challenges in and strategies for working with groups. Throughout the course, students will hear

from guest lecturers and speakers to offer practical, real world perspectives on these topics. The course practicum requires students to apply what they've learned by participating in Highland's annual Leadership Conference and facilitating workshops with visiting students. A full description of the Certificate of Leadership program is available.

Social Justice and Community Action (semester elective offered to sophomores, juniors, and seniors) (pass/fail) (course number 735)

This course is one of two electives that will satisfy the coursework component of the Certificate of Leadership Development program. This elective creates the opportunity for students to nurture an informed, globally-aware conscience and also to take specific concrete action on issues such as poverty, homelessness, hunger, education, and health care for at-risk populations locally and worldwide. Students develop a fundamental vocabulary of social justice, study the characteristics and leadership qualities of successful social entrepreneurs, consider the mechanisms for social change, and reflect on how they can lend their personal values and strengths to impact areas of concern. Students also identify issues of particular interest, researching the history of the problem and efforts to both alleviate and solve it, joining the conversation of historical and contemporary agents of change. The course practicum requires students to apply what they've learned, potentially through Highland's annual Family Service Day or another hands-on service activity related to the student's individual interests.

FINE ARTS

PERFORMING ARTS

Beginning Guitar (semester elective) (course number 619)

This class is for students who would like to learn how to play the guitar. Students are taught the parts of the instrument, tuning, proper playing position, as well as basic chord structure. Beginning notation and rhythm reading are practiced. This class teaches students how to play in an ensemble as well as how to be a solo musician. The group performs in at least one public concert during the semester.

Intermediate Guitar (with permission) (full year) (course number 637)

This class is designed for students with at least one year of guitar experience (or two semesters of Beginning Guitar) and some music theory knowledge who want to improve their skills and possibly move on to Guitar Ensemble. Students further the skills they learned in Beginning Guitar as well as learning the skills necessary to audition for the Guitar Ensemble.

Guitar Ensemble (with permission) (full year) (course number 620)

This class is designed for students who have at least two years of experience playing the guitar. It gives them the opportunity to perform in an ensemble as well as offering solo opportunities. Students learn chords, notation, and other music theory concepts. Students perform in at least two public concerts during the school year. Audition for seating placement is required.

Jazz Ensemble (full year) (course number 635)

This ensemble is for students who wish to actively participate in a performing instrumental jazz group. The main emphasis is to play musical instruments by ear, incorporating music theory into the practical playing of jazz pieces, and to develop the ability to improvise in various scales, modes, harmonies, and keys. The ensemble performs publicly at two concerts in the Highland Center for the Arts; other performances are encouraged.

Advanced Jazz Ensemble (full year) (course number 677)

The Advanced Jazz Ensemble features auditioned musicians who study and perform more complicated jazz music than the regular Jazz Ensemble. The course features written charts and improvisational studies which result in a high level Jazz Ensemble that is expected to perform both at Highland events as well as at other venues in the community.

String Ensemble (two days per week for full year; only half credit is awarded) (course number 649)

This ensemble is for students who wish to actively participate in a performing string ensemble. The main emphasis is individual performance improvement. The ensemble performs publicly at two concerts in the Highland Center for the Arts; other performances are encouraged.

Theater Technology (semester elective) (course number 616)

This course examines the practical application of set and lighting design. Students are involved in the building of sets for school productions, starting with drawings, model sets and the construction of actual set pieces. Students also learn the basics of lighting and sound design, so that they can take charge of the sets, lights and sound for all drama productions and Center events. The course is taught through lecture, video and class participation. Some after-school participation may be required.

Sound Technology (semester elective) (course number 668)

This course teaches the fundamentals of live sound reproduction and studio recording. Topics include microphone types and usage, cable requirements, correct connections, equalization, use of effects and processors, gain stage and signal flow analysis, and live mixing techniques. Students are introduced to computer based recording and the proper use and care of A/V equipment in The Rice Theater and beyond.

Sound Technology 2 (semester elective open to students who have taken Sound Technology) (course number 680)

Students gain further understanding of how to connect and execute the signal mixing of a live (or recorded) performance. They also learn, with the equipment provided, how to assist with needs in our theatres and at events requiring live or recorded sound. Students learn to understand video signal routing and control movie projection from several sources. They even learn to use a software based recording program to address the recording of sounds. Ultimately, they learn how to use their skills to enhance, mix, and produce a higher quality final product.

Chorus (semester elective) (course number 604)

This active singing ensemble is for students who wish to learn and rehearse a wide variety of choral music including arrangements of folk, classical, jazz, show tunes, pop songs, and spirituals. The group performs in a concert in the Highland Center for the Arts; second semester students also participate in a music festival in the spring, usually in D.C. Other occasions for performances include assemblies and high school graduation.

Music Theory (semester elective) (course number 652)

In this one semester course, students learn fundamental music terminology and notation skills, the concepts of rhythm and tempo, concepts of pitch and pitch relationships, and melody and harmony. They are also introduced to different periods of music, becoming familiar with the major eras. Students practice sight-singing and ear training. This course is a pre-requisite for AP Music Theory.

Advanced Placement Music Theory (offered to students who have completed Music Theory) (full year) (course number 627)

In this course, students learn music terminology and notation skills, the concepts of rhythm and tempo, concepts of pitch and pitch relationships, melody and harmony, including advanced harmonic structure, basic and advanced ear training and basic and advanced sight-singing. They also examine different periods of music, becoming familiar with the different eras and the impact as musical complexity advanced. They are tested weekly, and they exercise their skills with practice AP Music Theory exams. Ear Training, Sight Singing and Piano Exercises are alternated on a daily basis. The course demands practice of skills outside of the classroom, and students are expected to be prepared and on-task at all times. This is a very intensive course covered in a very short time period.

VISUAL ARTS

Drawing and Design I (semester elective) (course number 671)

Students learn the Principles of Design through drawings and projects. This class focuses on the abstraction that lies under even the most realistic paintings. For instance, students learn how to create deep space using only abstract shapes and color, instead of drawing a landscape. Students work on methods to create lines, shapes and forms that are interesting and meaningful without realistic subject matter. The class learns about the color wheel through exercises and then how to use colors to create interest. Students learn how to make shapes appear to move, even though they are just shapes, like art special effects. Finally, they create a book with their own designs, such as fashion or buildings, based on the interests of each student. This may be the class for students who love art but not drawing from life. This class also includes an art museum field trip and an opportunity to exhibit the best work in the Highland Gallery.

Drawing and Painting I (semester elective) (course number 670)

Students learn the fundamentals of art through drawing and painting exercises and projects. Based on the elements of art and the principles of design, students learn concepts applicable to all art through graphite, ink, colored pencil, marker, pastel, watercolor, and acrylic paint. The class will learn to draw still lifes, paint landscapes, and do portraiture. This class focuses on skills

needed to draw realistically, such as perspective drawing and sighting. In addition students will apply drawing skills to a linoleum block print. Students will create a book which will include free drawings so that they can begin to pursue their own interests in art. The class will take a field trip to an art museum and do projects based on what we see. The students will have an opportunity to exhibit their best work.

Open Studio (with permission to students who have completed at least one year of introductory and/or intermediate visual arts courses) (full year) (course number 672)

Open Studio students develop various foundation skills to create art and expand on their understanding of elements of art and principles of design through studio instruction, using principles of design to create more meaningful art. Students choose a two-dimensional or three dimensional track, based on their previous course work. The 2D track includes projects using drawing, painting, and printmaking, in watercolors, pastels, acrylics, prints, and collage, working realistically and abstractly. The 3D track includes project using additive, subtractive, and constructive methods, in a variety of media, working realistically and abstractly. Both tracks include work in a series. Work is photographed and archived so it can be used to create a portfolio for college applications and/or art shows. This class includes an art museum field trip and opportunities to exhibit the best work of each student. This course prepares students for an AP-level art class, but continuing to AP Art is not required. Students may enroll in this class multiple times.

Advanced Placement Drawing (with permission) (full year) (course number 639)

AP Art in drawing is designed to take the student with a strong interest in art and develop that interest into a college level talent. Students learn a variety of drawing techniques using a wide range of media, and most importantly they learn how to think about art, bring content to art and talk about their ideas in critiques. They place their work in context by researching similar artists, so they learn to think about their own work by thinking about the work of others. In the first semester the students prepare a portfolio demonstrating a breadth of understanding of the elements of art and principles of design as applied to drawing. During the second semester they work on a concentration which will be a semester long series of projects all specifically related. Photographic and computer-driven design is not permitted in AP Drawing. Students select five of their best works for presentation. At the end of the year during AP exam week, in lieu of an exam AP art students will be turning in a portfolio consisting of 24 separate works.

Advanced Placement 2-D Design (with permission) (full year) (course number 640)

This course is identical to the Advanced Placement Drawing course, with the only exception being that photographic and computer-driven design is permitted.

Beginning Sculpture (semester elective) (course number 673)

In this course, students learn methods for creating three-dimensional art work and sculpture using additive, subtractive, and constructional methods. Students explore common media associated with three-dimensional art—their uses, procedures, and results. These include, but are not limited to, clay, plaster, foam, found objects, wood, wire, and papier mâché. Projects are based

on seeing and using the third dimension, and ideas that separate three-dimensional art from two-dimensional art.

Intermediate Sculpture (full year course open to students who have taken Beginning Sculpture) (course number 674)

Intermediate Sculpture students develop skills already learned, as well as work with new media. Elements of art and principles of design are a focus of the class. Students are expected to exhibit greater understanding of media and methods, and to produce more thoughtful and creative works. Projects involve additive, subtractive, and constructive methods. Students also develop ideas for projects on their own, choosing their own media and themes. This class is designed to prepare students for taking AP 3D Design.

Advanced Placement 3D Design (with permission) (full year) (course number 641)

AP Art is designed to be the culmination of a student's high school art studies. Students are expected to work at a higher level of art than in previous classes. The course is comparable to an introductory college art course. Students study and use the elements of art and the principles of design as a basis for self expression. Work begins during the summer before taking the course; summer work and a paper are a requirement. Work in the course goes towards an AP portfolio, which will be submitted to the AP Board during AP exam week in May. The AP portfolio consists of at least 20 finished works to the College Board in lieu of a written exam as the course's culmination. The course is very demanding of both time and effort, but is very rewarding. It is for serious art students who have taken at least Intermediate Sculpture and/or Ceramics III. Students may submit either a sculpture or ceramics portfolio, depending on their experience and interests.

Ceramics I (semester elective) (course number 631)

In this introductory course, students learn methods and techniques for working with clay to create art. They explore various hand building techniques, begin to work on the potter's wheel, and discover ways to bring the two methods together in a single work. Though they spend more time on the wheel, this course serves only as an introduction to wheel-throwing. Students leave the course with a basic knowledge of clay.

Ceramics II (semester elective open to students who have taken Ceramics I) (course number 632)

Students expand on their knowledge of clay in this intermediate level course after successfully completing Ceramics I. More advanced wheel techniques are taught, as well as more methods for using handbuilding techniques with wheel-thrown pieces. The primary theme of the course is combining functionality with aesthetics and design. Students are expected to work more independently and show more creativity with their pieces than in Ceramics I.

Ceramics III (full year) (with permission) (course number 642)

Students further develop their skills with clay on and off the wheel. The course focuses on improving skills and techniques already acquired and learning more advanced skills. A good understanding and application of basic wheel skills are essential in undertaking the coursework.

Students assume more studio responsibilities, including recycling and preparing clay, keeping the classroom clean, maintaining an inventory of supplies, and loading and unloading the kiln. Through the skill development and added responsibilities, students learn more about continuing with pottery on their own. Work is critiqued continuously over the course by both peers and the instructor. The course concludes with a final project showing skill mastery.

Ceramics IV (full year) (with permission) (course number 660)

Ceramics IV, a year-long course, is intended to prepare ceramics students for AP 3D Design, or to replace it for those students wishing to continue after Ceramics III but who do not wish to go to the AP level. This course will be half teacher-directed (with assigned projects and techniques taught) and half student-directed (with the students developing their own projects and ideas and doing their own research). For pre-AP students, this course is optional but recommended if time allows. It helps prepare them for working mostly independently as they would in AP, and gives them an extra year to develop the content in their artwork and find their personal design aesthetics. For non-AP students, this course allows them to continue to develop their technical and design skills in clay without the pressure of an AP-level course. This course moves from the more technical, craft-based instruction of Ceramics I-III to the design and content of fine art. Students are required to take on some responsibility of studio maintenance, and required to tutor beginning ceramics students.

2D Graphics (semester elective) (course number 666)

In this project based class, students learn various topics of Adobe's latest versions of InDesign, Illustrator, and Photoshop. This includes how to work with text and set up a document, how to work with frames, and how to work with colors in InDesign; how to create text and gradients, draw and compose an illustration, transform and distort objects, and how to work with layers in Illustrator; as well as how to work with layers, make selections, incorporate color techniques, and place type in an image in Photoshop.

Graphic Design/Yearbook (full year) (course number 675)

In this technological age, Graphic Design and visual images are everywhere – Facebook, Twitter, Instagram, and Pinterest. This course exposes students to a basic understanding of Graphic Design through the design of the Yearbook. Students are introduced to relevant Adobe software and advanced instruction of InDesign, Photoshop, and Illustrator. This is a visual communications class, focusing on typography, photography, writing, editing, and effective use of design. Specific design skills are introduced, such as photo editing in Photoshop, logo design in Illustrator, and page and template design in InDesign. Students utilize these skills to design the Yearbook from start to finish. InDesign, Illustrator, and Photoshop are currently the premier programs used by design firms nationwide. The goal is for students to leave the course with a working knowledge of current software so they can take these skills to college and beyond. Note that only seniors who have yearbook experience may enroll for this class.

3D Animation (semester elective) (course number 667)

3-D Computer animation is employed everywhere in our world today. Movies, games, and the Internet are a few such arenas. This course introduces 3D animation. Students learn the basic

properties of 3D computer objects. Subsequently, they proceed to character creation and animation. The software package for this course is Animation Master, an industry-strength animation tool.

Digital Photography (semester elective) (course number 676)

Photography has become an important part of our daily lives, so this course helps students understand how to improve the quality of their photos and learn design skills. Students learn elements of photographic composition, how to operate SLR cameras and their manual settings, and how to use digital photo editing software (mainly Photoshop). Assignments involve learning general artistic composition using elements of art and principles of design, as well as photography-specific content such as depth of field and exposure. Appropriate and ethical use of photography and digital editing are also discussed. The goal is for students to leave the course with a portfolio of photographs using a variety of techniques. Note that students are required to use their own digital SLR cameras during this course.

Beginning Filmmaking (semester elective) (course number 653)

This course serves as an introduction to filmmaking techniques and theory. Students will learn to analyze films through readings and viewings, and recognize and understand the underlying film techniques. This theoretical knowledge will be solidified and applied through shooting short scenes and sequences around the school. Students will learn the basics of proper camera skills, sound recording, and lighting as well as professional editing and post-production software such as Final Cut Pro, Soundtrack Pro and Garage Band. This course is a prerequisite for Intermediate Filmmaking.

Intermediate Filmmaking (semester elective open to sophomores, juniors and seniors who have taken Beginning Filmmaking; sophomores need special permission) (course number 654)

This class is an introduction to the basics of making a short digital documentary, from concept development to finished piece. Filmmakers plan, shoot, and edit their own individual short documentaries. The class covers the essential technical skills, the categories of emerging styles of non-fiction film, and how to experiment with a variety of documentary storytelling techniques. The course format consists of individual video assignments, screenings, and critique.

Advanced Filmmaking (semester elective open to juniors and seniors who have taken Intermediate Filmmaking) (course number 655)

This course is a continuation of Intermediate Filmmaking with more emphasis on better story development and higher production values. Students work as a team on a single documentary, sharing the work of planning, critiquing, filming, lighting and editing. This results in the creation of a longer, more complex film as well as teaching the students to work collaboratively on a project by providing and receiving ideas, constructive criticism and feedback.

CAD 1: 3D Architecture 1 (semester elective) (course number 663)

3-D computer architectural modeling is employed everywhere in our world today. Movies, games, the Internet, and scientific modeling are a few such arenas. This course introduces 3D architectural design and modeling. Students learn the basic properties of 3D computer objects.

Subsequently, they proceed to CAD (computer-aided design). The software package for this course is Chief Architect, a powerful industrial software package used for architectural modeling.

CAD 2: 3D Architecture 2 (semester elective) (offered to students who have completed 3D Architecture 1) (course number 664)

This course is offered as a continuation of 3D Architecture. Students use Chief Architect and continue to learn some tools not previously covered; however, the course is mainly project-based. Students are given different scenario criteria in a client-designer relationship environment from which they build their structures. In addition to enhancing their CAD skills, students obtain real-world business experience as they input actual prices into their materials list. Students have requirement rubrics which are used for assessment.

CAD 3: 3D Architecture 3 (semester elective) (offered to students who have completed 3D Architecture 2) (course number 665)

This course is offered as a continuation of 3D Architecture 2. This class allows students to continue to enhance their CAD skills and pursue their passion in architecture. Students design their semester projects based on a list of higher level tools in Chief Architect. Students have requirement rubrics which are used for assessment.

Art and Architecture in Italy (summer class for semester credit) (pass/fail) (course number 681)

This elective is taught over a three-week period in the summer in Italy. It combines classroom lessons with site visits and instruction by experts in the field. The inquiry-based curriculum surrounds works of art, architecture, and artifacts from the pre-Roman period to the Baroque and spans the length of the Italian peninsula from Tuscany to Puglia. Students learn how to observe and discuss works of art within their cultural and historical context and acquire a fundamental vocabulary of terms necessary to interpret art. Students spend one week working with Italian archaeology students and their site director at a pre-Roman dig in southern Italy learning all aspects of archaeology. They also do a one week home-stay with an Italian family in Tuscany.

MATHEMATICS

Algebra 1 (full year) (one high school credit) (course number 101)

This is the traditional college preparatory course that serves as a foundation for subsequent math courses. Arithmetic skills and reasoning skills are developed, including arithmetic with integers and rational numbers, and solving and graphing linear functions and inequalities. Students master operations with monomials and polynomials, and they use that knowledge to factor polynomials and solve quadratic equations. The students are introduced to radical equations and probability. Problem solving is integrated throughout the course as connections to other subject areas are made through practical applications. Models, manipulatives, and technology, including the graphing calculator, are used when appropriate. Students are expected to use the language and symbols of mathematics.

Algebra, Functions, and Data Analysis (full year) (course number 133)

This course is designed to promote critical thinking and analytical skills as they pertain to real-world mathematical scenarios. In this course, students study functions and their behavior, with an emphasis on linear, quadratic, absolute value, and square root functions. Students solve problems that require the formulation of linear and quadratic equations to model practical applications from science, business, and finance. Students enrolled in AFDA should expect to utilize a variety of high school level math skills, including probability and statistics, to analyze given situations and make decisions pertaining to provided data. Students strengthen conceptual understanding in mathematics and further develop connections between algebra, geometry, and statistical data representation. This math elective course is designed to be taken before the Algebra II – Algebra III sequence.

Geometry (full year) (course number 105)

This is a traditional study of Euclidian geometry. Students perform a study of geometric structures, their characteristics and relationships. The students describe and investigate relationships within a geometric system using definitions, axioms and theorems in that system. Formal proofs and practical applications are used. This course is designed for students who have acquired the skills of Algebra I and includes an introduction to trigonometry.

Honors Geometry (with permission) (full year) (course number 109)

This course is a comprehensive study of Euclidean geometry. Students perform an in-depth study of geometric structures, their characteristics and relationships. The students describe and investigate relationships within a geometric system using definitions, axioms and theorems in that system. Emphasis is placed on mathematical argumentation through formal proofs and practical applications. This course is designed for students who have mastered the skills of Algebra I and includes an introduction to trigonometry.

Informal Geometry (full year) (course number 111)

The goal of this course is to teach students to think more analytically so that they can apply these skills to problems involving space. Students explore angles and shapes, particularly triangles and quadrilaterals, and identify characteristics of each shape. Study includes right triangle relationships, and trigonometric identities. Emphasis is placed on applying rules and relationships, not formal proof. Finally, they learn to attack challenging SAT-style problems involving perimeter, circumference, area and volume.

Algebra II (full year) (course number 102)

This course provides the mathematical base for higher levels of math. This course introduces different approaches to solving equations, inequalities, systems of equations and inequalities, absolute value equations, and equations with radicals. Matrix operations are introduced, and matrices are used for solving linear systems. Throughout the course, the students explore quadratic and polynomial functions and develop skills in graphing and analyzing those functions. Solving models of real world application problems is a component of this course. Students in this class take Algebra III the following year, though they are also eligible to take

semester Statistics.

Algebra III (semester course) (course number 116)

This course is intended for students who have studied Algebra II through Quadratic Equations. This one semester course is devoted to advanced algebra, beginning with a review of quadratic equations and their applications. Students build on their knowledge of quadratic equations through study of polynomial and inverse functions. They then progress to exponential and logarithmic functions and use their knowledge of these functions to solve growth and decay problems. Students study triangle trigonometry and develop basic knowledge of the six basic trigonometric functions and their relationships. They also tackle sequences and series, arithmetic and geometric, finite and infinite, their properties and their applications to problem resolution. Throughout the course, students are encouraged to use the language and symbols of mathematics.

Algebra III (full year) (course number 132)

This course is intended for students who have studied Algebra II through Quadratic Functions. This full-year course is devoted to higher order functions, including Summation notation and a study of sequences and series, arithmetic and geometric, finite and infinite, their properties and their applications to problem resolution. Students will build on their knowledge of functions and quadratic equations through the study of polynomial, rational and inverse functions. Students perform combinations and compositions of functions, and will graph and verify inverse functions. Students analyze and graph rational functions and their asymptotes. Students progress to exponential functions and use knowledge of these functions to solve growth and decay problems and study the rules of logarithms. The course includes a study of conic sections, writing equations and graphing circles, ellipses, parabolas, and hyperbolas. Students finish with an introduction to the unit circle and trigonometry. Throughout the course students use the graphing calculator and the language and symbology of mathematics.

Honors Algebra and Elementary Functions (with permission) (full year) (offered to students who have completed Geometry) (course number 128)

This advanced algebra course includes a comprehensive study of algebraic functions including rational, exponential, quadratic, absolute value, piece-wise, and linear functions. Placement in this course requires strong skills in factoring quadratics. Functions are modeled, described, and represented in the coordinate plane. Writing equations to model word problems will be a major component of this course. Students simplify radical and complex expressions, and solve applications problems using matrices and logarithms. The course includes a study of arithmetic and geometric sequences and series. This course moves at a rapid pace to prepare students for the rigors of Honors Pre-Calculus or Pre-Calculus.

Statistics (semester course) (course number 114)

This course is intended for students who have completed Algebra II through Quadratic Equations. This one semester course covers introductory statistics and probability. Topics include experimental design, measures of central tendency, correlation and regression, and probability and chance variability. Varied sampling methods are discussed as well as different graphing techniques. Interpretation of data is stressed. Statistical applications to a wide variety

of subjects, such as the social sciences, economics, and business, are stressed. Students perform a statistics project, including appropriate graphs and calculations for in-class presentation. The graphing calculator is used extensively throughout the course while a balanced approach of numerical and logical methods is emphasized. Throughout the course, students are encouraged to use the language and symbols of statistics.

Discrete Math (semester course offered to students who have completed Algebra III) (elective grade scale) (course number 127)

In Discrete Math students develop skills and understanding of the application of mathematics to social sciences; students build a reference set for use in business, law, computer science, and math. Topics to be covered include: Election Theory, Fair Division, Voting, and Apportionment; Set Theory and Venn Diagrams; Map Theory; Konigsberg bridges; Networks, Euler Circuits, and Critical Path Methods. Assessments include projects, tests and a semester exam.

Pre-Calculus (full year) (course number 110)

This course provides the mathematical background for a calculus class. It is a course intended for students who have a solid working knowledge of Algebra and have basic knowledge of Trigonometry. This rigorous course is intended to develop skills in graphing linear and non-linear function using different methods, get a deeper understanding of different kinds of functions and their applications, extend the understanding of trigonometry and master skills in solving equations and inequalities. The course focuses on skills and concepts and their applications in real life by using models, relating to other subjects, and conducting real life projects. This course enables students to approach a problem algebraically and graphically. Students develop their quantitative thinking, reasoning, algebraic and graphical skills.

Honors Pre-Calculus (with permission) (full year) (course number 103)

This course provides the mathematical background for calculus classes and is a prerequisite for AP Calculus AB and AP Calculus BC. It is intended for students who have advanced skills in functions and factoring, and who have a working knowledge of Trigonometry and rational functions. Students explore all of the topics of Pre-Calculus, but at a faster pace and in more depth. Students in the Honors class also learn to solve problems analytically by exploring analytical trigonometry and analytic geometry.

Differential Calculus (full year) (course number 123)

This course is intended for students who have a solid working knowledge of algebra, geometry, trigonometry and elementary functions. The purpose of the course is to prepare the student for college calculus. The course covers differentiation of elementary functions as well as applications of calculus to problem solving. The graphing calculator is used extensively throughout the course while a balanced approach of graphical, numerical and algebraic methods is stressed. Problem solving is introduced early and integrated throughout as connections to other subject areas are made through practical applications. Models and technology are used when appropriate. Throughout the course, students are encouraged to use the language and symbols of calculus.

Advanced Placement Statistics (with permission) (full year) (offered to students who have satisfactorily completed Pre-Calculus or to those who are currently taking Honors Pre-Calculus) (course number 107)

This course is intended for students who have a thorough knowledge of algebra, geometry, trigonometry and elementary functions. The purpose of the course is to prepare the student for advanced placement into college statistics. The content of the course is driven by The College Board Advanced Placement Course Development Syllabus. The graphing calculator is used extensively throughout the course while a balanced approach of graphical, numerical and algebraic methods is stressed. Students are required to complete a summer reading and problem solution assignment prior to admission into the course. The assignment is due on the first day of class. Problem solving is introduced early and integrated throughout as connections to other subject areas are made through practical applications. Models and technology are used when appropriate. Throughout the course, students are encouraged to use the language and symbols of statistics.

Advanced Placement Calculus AB (with permission) (full year) (course number 104)

This course is intended for students who have a thorough knowledge of algebra, geometry, trigonometry and elementary functions. The purpose of the course is to prepare the student for advanced placement into college calculus. The content of the course is driven by The College Board Advanced Placement Course Development Syllabus. The graphing calculator is used extensively throughout the course while a balanced approach of graphical, numerical and algebraic methods is stressed. Students are required to complete a summer reading and problem solution assignment prior to admission into the course. The assignment is due on the first day of class. Problem solving is introduced early and integrated throughout as connections to other subject areas are made through practical applications. Models and technology are used when appropriate. Throughout the course, students are encouraged to use the language and symbols of mathematics.

Advanced Placement Calculus BC (with permission) (full year) (course number 126; students might also be required to register for AP BC Calc Lab, course number 129)

Calculus BC course is a study of derivatives, integrals, limits, approximation, applications and modeling. Topics include: work and fluid force; L'Hospital's rule; indeterminate forms and improper integrals; partial fractions; Riemann sums; parametric, vector, and polar functions; and Taylor series. Students are required to complete a summer reading and problem solution assignment prior to admission into the course. Depending on the Calculus experience of the BC class, a BC Lab period may be required, which takes the form of a double period during the second semester. Course work prepares the student for the AP BC Calculus exam.

PHYSICAL EDUCATION

Introduction to Athletic Training (semester elective offered to juniors and seniors) (course number 706)

This course allows the student to learn about the athletic training profession. The course focuses on the six domains of athletic training and incorporates a hands-on component. Throughout the

course the students also learn basic anatomy, kinesiology, and first aid. The six domains of athletic training are: prevention; recognition, evaluation, and assessment; immediate care; treatment, reconditioning, and rehabilitation; organization and administration; and professional development and responsibility.

Sports Marketing (spring semester elective open only to seniors) (course number 702)

This class offers students a step-by-step journey through the world of marketing. Students learn the basic functions of marketing and how these functions are applied to sports and entertainment. In class, students discuss, research and evaluate marketing strategies that are used by successful sports franchises. In addition, students become acquainted with people who have made their career in sports, entertainment and marketing. Finally, the class looks at legal and ethical issues that exist in the sports and entertainment industry.

SCIENCE

SCIENCE FULL YEAR OFFERINGS

Environmental Science (full year) (course number 304)

Environmental Science is the study of how humans interact with the environment. Industrial advances, booming economies, and an improved quality of life's ecosystems challenge the sustenance of the world. This course focuses on identifying environmental problems, learning and practicing the scientific method, and understanding the different constituents of a healthy environment. Laboratory and field experimentation are essential components to encourage critical thinking and to help establish a scientific outlook. The role of humans in nature is discussed, and students formulate possible solutions to environmental problems.

Biology (with permission) (full year) (course number 301)

Throughout the course of this introductory biology class students explore the various forms and functions of organisms and how they interact with their environment. The scientific method is employed to provide students the framework with which to question the biological world around them. Classroom lectures are supplemented with various laboratory exercises, field trips, and guest lecturers to create an experiential learning environment. The goal of this course is for students to be familiar with major biological concepts, scientific methods, and current issues in biological science so that they understand the importance of their input to the future of science, regardless of whether they go into a biology career field or not.

Honors Biology (with permission) (full year) (course number 328)

Throughout this course students explore the various forms and functions of organisms and how they interact with their environment through inquiry based labs, case studies, research, scientific reporting and discussions. All topics are covered in greater depth than the regular biology class, so the course serves as an excellent preparatory class for students considering AP Biology. The course has the ultimate goal of teaching students how through biology and biotechnology they might be able to solve global and local problems. A discovery approach is employed with the

instructor acting as a constructivist and facilitator to encourage a melding of both scientific knowledge and inquiry with the end result being a deep understanding of and appreciation for biology.

Chemistry (full year) (offered to students who have completed Biology) (course number 303)

Chemistry is the study of matter and energy. This class includes labs, demonstrations, projects, and many activities designed to make chemistry interesting and understandable, while also expecting students to think both critically and analytically. The course includes the properties of matter, gas laws, nomenclature, periodicity, atomic structure and driving forces in chemical reactions. The class uses a variety of means both to engage students and help them develop an interest in chemistry.

Honors Chemistry (with permission & completion of Biology) (full year) (course number 320)

Honors Chemistry is a quantitative, in-depth course recommended for students planning further study in a science-related field at the college level. This laboratory-oriented course is designed to prepare highly motivated students for AP Chemistry. Topics are explored through teacher demonstrations, laboratory exercises, and student problem-solving activities. Students are introduced to the shorthand of chemistry as they learn to use chemical formulas and equations. Chemical properties are related to atomic structure as students learn to use the periodic table of the elements. Stoichiometry, qualitative analysis, thermodynamics, and nuclear chemistry are introduced.

Physics (full year) (offered to students who have completed Chemistry) (course number 305)

Physics is the most basic of science courses. As such, the purpose of this course is to provide a fundamental understanding of the relationships between energy and matter in order to provide students with a foundation for the study of additional science courses. Emphasis is placed on development of critical thinking and problem solving skills. As with any experimental science, laboratory work is an integral part of the learning process and is utilized where appropriate. The five major topics to be covered are mechanics, states of matter, waves, electricity and magnetism, and atomic and nuclear physics. Knowledge of algebra and trigonometry is required for this course as well as a graphical display calculator.

Honors Physics (full year) (with permission to students who have completed Chemistry and PreCalculus or concurrent course in PreCalculus at either level) (course number 330)

This primary objective of this course is to prepare students to take AP Physics. The class focuses on teaching the fundamentals of mechanics, electricity and magnetism, and wave phenomena, using the mathematical skills learned in Algebra and Pre-calculus. Applications of calculus are introduced where appropriate, including derivatives to analyze kinematics concepts and integrals to analyze dynamics concepts. Through labs students focus on discovering mathematical models that govern the scenarios being proposed. Whenever possible, real world situations are analyzed so students can better connect the material to the outside world. During the first semester students investigate kinematics, dynamics and Newton's laws, equilibrium, and work; during the second semester students investigate the work-energy theorem, momentum and collisions, electric circuits, and optics.

Advanced Placement Biology (with permission) (full year) (offered to students who have taken Chemistry) (course number 302, student must also register for AP Bio Lab, course number 310)

The AP Biology course is designed to be the equivalent of a college introductory biology course usually taken by biology majors during their first year. It aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. The labs done by AP students in this course are the equivalent of those done by college students. This course covers three general areas: molecules and cells; heredity and evolution; and organisms and populations. Course work prepares the student for the AP Biology exam; a double period is required during the first semester in order to cover the laboratory portion of the course.

Advanced Placement Chemistry (with permission) (full year) (offered to students who have taken Chemistry) (course number 309, student must also register for AP Chem Lab, course number 313)

AP Chemistry is a rigorous, college level class. Major topics include electrochemistry, equilibrium, reaction prediction, kinetics, chemical bonding, gases, phase changes, solutions, acid/base reactions, thermochemistry, and electron configuration. Students complete the recommended labs in the AP Chemistry curriculum and prepare for college level research. Course work prepares the student for the AP Chemistry exam; a double period is required during the first semester in order to cover the laboratory portion of the course.

Advanced Placement Environmental Science (with permission) (full year) (offered to students who have taken Chemistry) (course number 314, student must also register for AP ES Lab, course number 333)

The AP Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science. Environmental science crosses many disciplines, including geology, biology, and chemistry, as well as a socio-economic facet to incorporate environmental policy. The goal of the course 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 risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Course work prepares the student for the AP Environmental Science exam; a double period is required during the first semester in order to cover the laboratory portion of the course.

Advanced Placement Physics C: Electricity and Magnetism (with permission) (full year) (offered to students who have taken Honors Physics and Calculus or concurrent course in Calculus of any level) (course number 341; student must also register for AP Physics Lab, course number 311)

This course is a year-long, calculus-based, college-level physics course, especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as electrostatics; conductors, capacitors, and dielectrics; electric circuits; magnetic fields; and electromagnetism. Introductory differential and integral calculus is used

throughout the course. Laboratory work is integral to the course, and students use computers with appropriate software and hardware to collect and analyze data. Course work prepares the student for the AP Physics C: Electricity and Magnetism exam.

Advanced Placement Physics C: Mechanics (with permission) (full year) (offered to students who have taken Honors Physics and Calculus or concurrent course in Calculus of any level) (course number 329; student must also register for AP Physics Lab, course number 311)

This course provides advanced, Calculus-based instruction in each of the following content areas: kinematics; Newton's laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; oscillations; and gravitation. As time allows, additional topics such as thermodynamics, electricity, magnetism and quantum theory are studied. Laboratory work is integral to the course, and students use computers with appropriate software and hardware to collect and analyze data. Course work prepares the student for the AP Physics C: Mechanics exam.

SCIENCE SEMESTER ELECTIVES

All courses use the elective grade scale unless otherwise noted.

11th Grade Intensive (full year elective offered to juniors with a math or writing disability as determined by a qualified clinical psychologist) (pass/fail) (course number 337)

This intensive class is designed for juniors who actively participate in the Learning Center but who continue to need learning support that is beyond the scope of what our Learning Center offers. The teacher helps students with their core classes, focusing primarily on STEM courses, as well as offering organizational and study strategies to encourage executive functioning and assessment preparation. Students attend their core classes as usual and are expected to complete all assignments for these courses. All work is graded by their subject teachers. Although the Intensive teacher spends some time helping with humanities classes, s/he mainly supports the work being assigned in science and math classes by offering remediation of pertinent skills and strategies.

Astronomy (semester course) (course number 331)

Astronomy focuses on the structure of the universe. The idea of the Big Bang is discussed, and the formation of the solar system explained. Students discover the life cycle of a star, the existence of black holes, and the natural formation of the elements in the periodic table. Students also explore the constellations and their significant astronomical features.

Ecology (semester course) (course number 322)

Ecology is an integrated science. In other words, ecology is the scientific study of the distribution and abundance of living organisms and the interactions among organisms and between organisms and their environment. In this class, students learn about organism distribution and abundance, as well as organism interactions. The environment of an organism includes both physical properties, which can be described as the sum of local abiotic factors such as insolation (sunlight), climate, and geology, and biotic factors, which are other organisms that

share its habitat. Students examine all these factors in greater detail. Finally, students learn about and make value judgments concerning current environmental issues.

Engineering Capstone (semester course offered to seniors who are pursuing the Pre-Engineering Certificate) (pass/fail) (course number 336)

This course provides seniors time during the second semester of their senior year to work on their capstone project, which is the culmination of the Pre-Engineering certificate and serves as the Senior Project. The capstone project affords Pre-Engineering Certificate participants the opportunity to forge an in-depth experience in a field of particular interest within engineering, while also demonstrating the breadth of skills and practices acquired throughout his or her Highland career. Students choose from a set of available options that take advantage of the expertise of faculty advisors, and instructors offer feedback on the project throughout the course. Pre-Engineering students present their capstone project to their peers and Highland faculty in lieu of the Senior Project presented by other members of the graduating class. As such, it is essential that the capstone project satisfy all of the requirements of the Senior Project.

Engineering Design (semester course offered to students who have completed or who are currently taking PreCalculus) (course number 335)

This course is a team-based engineering design course for students not already participating in robotics or VASTS as a part of the Pre-Engineering Certificate. Students work as a part of a team to assess, design, and construct a solution to a challenge created by the instructor.

Human Biology (semester course offered to students who have completed Chemistry) (course number 308)

Human Biology provides an overview of anatomy and physiology. The class includes an introduction to the structure and function of the human body with an emphasis on health and disease. Students should leave this class with a firm grasp of how their bodies function. An understanding that humans are a part of the biosphere and that human activities can have environmental consequences is stressed throughout the course. Bioethical issues such as stem cell research, performance enhancing drugs, and genetically modified foods are a few of the topics students explore in class. Guest speakers, case studies, videos, labs, field trips, and current event topics serve to enrich the curriculum.

Introduction to Engineering (semester course) (course number 334)

Introduction to Engineering introduces students to the nature of the engineering field as well as the engineering design process and its application. Through lecture and experiential learning, students learn the variety of engineering fields that exist and what the profession of engineering looks like. Students also use sketches and 3D modeling software to help them devise solutions to solve design challenges, they document their work using an engineer's notebook, and they communicate these solutions to their colleagues.

Marine Biology (semester course offered to students who have completed Chemistry) (course number 307)

Throughout this marine biology course students are introduced to the biology, ecology, and the physiology of marine organism. Topics include the chemistry of the marine environment; the diversity of organism inhabiting marine environments, the study of major marine environments, and the effects of human on the marine environment. Students also explore the specific physiological adaptations, body types, and behavioral strategies that marine organisms have evolved for survival.

Math/Science Intensive (semester course offered to juniors and seniors with a math or writing disability as determined by a qualified clinical psychologist) (pass/fail) (course number 343)

This intensive program is designed for juniors and seniors who actively participate in the Learning Center but who need support that is beyond the scope of what our Learning Center can offer. The teacher helps students with their math and science classes, as well as offers study strategies and remediation of prerequisite skills. Students attend their math and science classes as usual and are expected to complete all assignments for these courses. Since all work is graded by their subject teachers using letter grades, students in the intensive program are evaluated on the pass/fail grade scale.

Robotics Computing (semester course for eligible robotics build team members) (pass/fail) (course number 326)

Designed for students who are invested in the build side of the School's robotics program, this elective focuses on computing as applied to robotics. The course provides team members the time to enhance their Java and/or CAD skills. Students work together to foster a sense of team building necessary for any collaborative effort. Guest speakers and mentors from the robotics team at Highland provide guest lectures to aid student learning and show students how to design and/or control a host of mechanical/electrical devices on the robot.

Robotics Systems (semester course) (course number 325)

This elective provides those students interested in engineering and robotics with a solid foundation in mechanical and electrical systems. Emphasis is not placed on mathematical theory, but rather hands-on project based applications to achieve a solution to an engineering problem. Students work in groups to foster a sense of team building necessary for any collaborative effort. Guest speakers and mentors from the FIRST robotics team at Highland make presentations to aid student learning and show students how to think about stability of structures, how gear ratios drive a bike or car forward, or how simple circuits work. Students also work in their groups to review past US FIRST robotics challenges and brainstorm their own ideas and solutions to the problems posed. With parts available, they then have the chance to construct the real-life application of their ideas and see if their solution works!

Science and Society (semester course) (course number 332)

Students in this course investigate the technology behind the development of the telephone from its creation to the present, and the effects it has had on society along the way. The class will recreate a telegraph and the original telephone. The class will also explore how increased connectivity has presented new challenges to privacy, security, and independence.

Summer Ecology (summer class for semester credit) (pass/fail) (course number 342)

The objectives of this field sciences course are to provide an opportunity to apply scientific methodology in field settings; to utilize a format that is not available during the regular school year; and to take advantage of the resources in our greater region. This course lasts for two weeks. During the first week, students will meet daily at Highland school and learn about basic ecological principles. During the second week, students will be traveling and spending the night at various locations in the Potomac River watershed. Students will apply the principles learned during week one to the local setting of the watershed. Students are expected to contribute to the tasks of the group which will include food preparation, camp or lodge maintenance, and organizational tasks. This course is available to rising sophomores, juniors, and seniors.

SOCIAL SCIENCES

World History I (intended for freshmen) (course number 201)

This course focuses on European Civilizations tracing social, political, economic, and cultural developments from the Norman Invasion in 1066 through the French Revolution. This is the context used to help students develop historical thinking skills key to success in high school, college, and beyond. Students develop primary source analysis skills such as identifying point of view, intended audience, author's purpose, and contextualization. In addition, students learn common "lenses" through which the narrative of history can be viewed. Students also focus on practical skills such as critical reading, note-taking, information ordering, analytical writing technique, and strategic test-taking skills that will be critical to success in their academic careers.

Honors World History I (for freshmen with permission) (course number 232)

Like World History I, this course also focuses on European Civilizations. While the course content proceeds chronologically, the curriculum integrates historical themes and process skills in its exploration of social, political, economic, and cultural lenses. Students are introduced to and practice pre-AP skills of primary source analysis and identification of patterns and themes, in addition to increasing competency in the historical curriculum and developing skills in historiography. In addition to practical skills expected in the World History I course, honors students are also expected to connect primary documents to historical theses and discuss essential themes and questions in a Harkness setting.

20th Century United States History (intended for juniors) (course number 234)

In this course, students study United States history both chronologically and thematically, from late-nineteenth-century Gilded-Age America into the 21st century. Students learn the historical thinking skills of chronological reasoning, identification of cause-effect relationships, primary document interpretation, and synthesis of historical narratives through the analysis of continuity and change over time. Students also develop their broader academic skills of note-taking, proper citation of evidence, evaluating research sources for quality and reliability, group work, and oral and visual presentation. The study of this period of U.S. history is focused through the lens of the essential question: What is "the American way of life," and how has it been lived, challenged, and transformed in the 20th century?

Advanced Placement United States History (for juniors with permission) (course number 208)

The Advanced Placement program in United States History is designed to provide students with the analytical skills and factual knowledge to deal with problems and materials in United States History. The Curriculum begins with European Exploration and concludes with the Bush Era. The program prepares students for intermediate and advanced college courses by making the demands upon them equivalent to those made by full year introductory college courses; moreover, the AP curriculum stresses higher order thinking skills within a rigorous academic context. Students are required frequently to analyze, synthesize, and evaluate primary and secondary sources in addition to memorizing, comprehending, and applying facts. Students learn to assess historical materials for their relevance, their reliability, and their importance, and to weigh the evidence and interpretations presented in historical scholarship. In addition, AP US History prepares students to pass the AP examination in May 2006, for which valuable college credit can be earned. To achieve this goal, students should be prepared to spend significant amount of time outside of class on homework and research.

Advanced Placement European History (for seniors with permission) (full year) (course number 205)

This course prepares students for the Advanced Placement Exam in European History (1450-present). It emphasizes acquiring the required factual knowledge, developing the requisite analytical and writing skills, and practicing with the kinds of questions and formats used on the AP exam. Students interpret primary sources, trace cause and effect chains, explore similarities and differences across nationalities, time periods, and subject areas, and adjudicate for themselves, the major historical controversies presented in the history of this fascinating and turbulent period. The course emphasizes the integration of information across the fields of social developments, politics, religion, intellectual concepts, technology, and economics.

Advanced Placement World History (for sophomores with permission; for seniors with permission) (full year) (course number 228)

The purpose of the AP World History course is to develop greater understanding of the evolution of global processes and contacts, in interaction with different types of human societies. This understanding is advanced through a combination of selective factual knowledge and appropriate analytical skills. The course highlights the nature of changes in international frameworks and their causes and consequences, as well as comparisons among major societies. The course emphasizes relevant factual knowledge deployed in conjunction with leading interpretive issues and types of historical evidence. The course builds on an understanding of cultural, institutional, and technological precedents that, along with geography, set the human stage. Periodization, explicitly discussed, forms an organizing principle for dealing with change and continuity throughout the course. Specific themes provide further organization to the course, along with the consistent attention to contacts among societies that form the core of world history as a field of study.

Government (semester course that is required for graduation) (intended for seniors) (course number 206)

This introductory civics course challenges students to understand how, and evaluate for themselves how well, the U.S. government is designed to protect and promote the ideals of American democracy. The topics they learn, think critically, and converse constructively about, include the historical and philosophical foundations of American democracy, comparative government, the executive branch and presidential election methods, the legislative branch and the federal budget, the judicial branch and landmark Supreme Court cases, state and local government, plus special topics such as healthcare reform. Students practice understanding, articulating, debating, and defending their views on political questions with an open mind, an empathetic ear, and a commitment to truth, justice, freedom, and equality.

SOCIAL SCIENCE SEMESTER COURSES THAT SATISFY THE SOPHOMORE WORLD HISTORY REQUIREMENT

These classes may be taken by upperclassmen, but sophomores will have priority in scheduling.

Comparative Religion (semester course that satisfies the sophomore world history requirement) (course number 212)

In this course, students develop the background necessary for an appreciation of the basic beliefs and practices of the world's religions. Emphasis is placed on historical origins as well as on current beliefs. Students study Buddhism, Christianity, Confucianism, Hinduism, Islam, Judaism, Yoruba, Taoism, and other belief systems. They read secondary and primary sources; identify and analyze relevant current events; develop writing skills incorporating mastery of content as well as critical thinking and creativity; and cultivate academic skills of note-taking, organization of materials, and time management in pursuit of maturing as conscientious, informed global citizens in achieving a fundamental literacy of major world religious traditions. The course includes weekly readings of the course text, exposure to primary source material from the covered religious traditions, and the preparation and presentation of both written and oral responses to stimulus material.

Cultures in Conflict: Assimilation, Adaptation, and Extermination (semester course that satisfies the sophomore world history requirement) (course number 221)

This class is dedicated to exploring the historical relationship between peoples of the Developed, Developing and "Third" worlds, and the legacies left by clashes of "western" and "non-western" cultures. Throughout history, cultures have come into conflict. Some cultures by their nature act "aggressively" toward other cultures, replacing the other culture's values with its own (even though such effects are not consciously directed). The aggressiveness of one culture can have a devastating impact on another culture, and the results of cultural conflicts are the assimilation of the weaker culture into the stronger, the adaptation of the weaker culture to the stronger, or the extermination of the weaker culture by the stronger. When finished with this course, students will have an understanding of the inevitability of cultural change over time, of the factors that make Western culture "aggressive" whether one wants it to be or not, and a feel for the position of those who belong to a culture under attack by a more aggressive culture.

The Economics of Imperialism (semester course that satisfies the sophomore world history requirement) (course number 236)

In this course students learn about the economic imperatives which drove imperialism. In particular, they study Spanish colonialism in South America in the Sixteenth through Eighteenth Centuries and British imperialism in India in the Eighteenth through Twentieth Centuries, so they may compare and contrast economic motives, processes, and outcomes. Students will study the geography of South America and South Asia, the economic/ethnic/religious/language backgrounds of the modern populations of Latin America and India, with a special emphasis on relationships between the elites and the masses, and the independence movements in Latin America and India, with special emphasis on answering the question “why did India’s independence movement end with creating a stable democracy, while Latin American independence movements were a prelude to wars and dictatorships?”

Tigers and a Dragon: East Asia Studies (semester course that satisfies the sophomore world history requirement) (course number 238)

In this course, students learn about the origins of civilization in the Neolithic period, and trace the development of the world’s oldest civilization, that of China. Students will study the common elements of early civilizations and the unique aspects of China’s early civilization. They will discover why so many East Asian nations (especially Japan, Korea, and Vietnam) adopted so many elements of Chinese culture, and yet how they maintained distinct cultural elements of their own. Students will come to understand why China dropped from the first ranks of the economic and technological powers for two centuries, and how it recovered. In addition, students will examine the challenges faced by modern China and predict what China will be like twenty years from now.

Tribalism and Nationalism (semester course that satisfies the sophomore world history requirement) (course number 237)

In this semester-long course, students learn about the challenges tribal cultures have faced in a world of nation-states. In particular, they compare nation-building in the Middle East with nation-building in Africa. They examine the concepts of identity and culture and, particularly, how those have changed since the beginnings of the independence movements in these regions. Students also examine how communications technologies (radio, TV, the internet) have allowed both governments and anti-government forces to shape public perceptions of their tribes and the nation. Ultimately, students will learn what created and motivates both the current and historical radical groups in Africa and the Middle East, such as the Mau Mau, Interhamwe, Boko Harum, and ISIS.

SOCIAL SCIENCE ELECTIVES

All courses use the elective grade scale unless otherwise noted.

All Social Science electives are open to sophomores, juniors, and seniors unless otherwise stated, but note that these electives do NOT satisfy the sophomore world history requirement.

American History in Film (semester elective for juniors and seniors only) (course number 222)

This course examines twentieth-century American history, focusing on American culture and society. The primary text for this course is *Hollywood’s America: U.S. History through its Films*.

Students view American films, ranging from early American classics like *Citizen Kane* to more contemporary options. They critically analyze how American cultural and social conflicts are reflected, portrayed, and resolved in popular films. By watching, discussing, and writing about these films, students examine how motion pictures create a window into and a reflection of modern American culture and society. Finally, students learn how to read American films as cultural texts that help us better understand history and culture.

Economics (semester elective) (course number 218)

This course teaches students the basics of economic theory, the distinctions between public and private sector economic decision-making, markets, labor theory, factors affecting national and local economics, and personal finances. Students evaluate the impact of real world events on the supply and demand of various commodities and perform cost/benefit analyses of both personal financial decisions and national monetary and fiscal policies.

International Flashpoints (semester elective) (course number 217)

International Flashpoints is a fast-paced and fascinating tour of various important conflicts around the world. Although this course does by its nature focus on important events in the news, students can also expect to cover such long-standing trouble spots as North Korea, Iraq, Palestine, Taiwan, Kashmir, and civil wars in Africa. Depending on student interest, we may also cover non-geographically specific issues, such as epidemics (AIDS or SARS), drug smuggling, ecological change, terrorism, religious conflicts, and the roles of America and the UN in the world. Students are expected to keep up with daily newspaper and magazine reading as well as assignments covering background information for each topic. Students have the opportunity to explore an area of individual interest through an in-depth project at the end of the course.

SEES Capstone (semester course offered to seniors who are pursuing the SEES Certificate) (pass/fail) (course number 241)

This course provides SEES Certificate candidates time during the second semester of their senior year to work on their capstone project, which is the culmination of the SEES Certificate program and can also serve as the Highland School Senior Project. In the SEES Capstone, student teams identify, research, design and present their own solution to an unsolved, pressing problem related to environmental sustainability, in consultation with experts from the relevant field(s). The course culminates in a final presentation of the student teams' research and solution to the SEES committee, their expert consultant, and at least one other audience member who holds a direct stake in the solution of the team's chosen environmental problem. In this way, the SEES Capstone challenges SEES Certificate candidates to demonstrate their mastery of the skills and habits of thinking acquired throughout their time in the SEES Certificate program.

Social Entrepreneurship (semester elective) (pass/fail) (course number 240)

Social Entrepreneurs take the research, design, and marketing methods used by start-ups in the business world, and use these strategies to promote social good by solving pressing problems in society and the environment. In this class, students work in teams to research, design, and present their solutions to unsolved, real-world problems faced by owners of businesses and other

organizations in the local community. In addition to learning the basics of business models, market research, information design and public speaking skills, students cultivate habits of self-directed learning, creative problem-solving, critical and interdisciplinary thinking, and group collaboration, all of which will be central to success in college and today's career world. This course fulfills a requirement towards earning a Certificate in Social Entrepreneurship and Environmental Sustainability.

The Turbulent 1960's (semester elective for juniors and seniors only) (course number 231)

This course focuses on major events, leaders, and trends of a period referred to as "the long sixties." Starting with the *Brown v. Board of Education* decision in 1954 and ending with the conclusion of American military involvement in Vietnam in 1975, students explore a time period of American history in which the country saw its greatest divide and most contentious conflicts since the Civil War. While there is a focus on major historical events, students can also expect to discuss topics in popular culture to help gain a stronger and more in-depth understanding of the 1960's. Students are evaluated through written assessments and projects. An emphasis is also placed on the importance of young people to the various movements of the 1960's, and the course explores successful and important strategies towards political activism.

WELLNESS

Freshman Seminar (semester credit but class meets throughout the year as needed) (course number 713)

Freshman Seminar is designed to help students' transition and integration into Highland's Upper School by developing self-awareness, building community, and equipping students with the interpersonal, academic, technological, and research skills necessary for success in high school. Wellness-themed topics include academic organization, care for body and mind, healthy relationships, digital citizenship, stress resilience, and service. Students apply technology skills to wellness or other academic projects; additionally, they learn basic programming. Freshman Seminar is also the home to J-Term, an interdisciplinary group research project where research and collaboration skills are emphasized.

Senior Transition Seminar (weekly throughout the year) (not graded, no credit awarded) (course number 732)

Weekly seminars with a variety of adults allow seniors to focus on timely and pertinent aspects of the college application process and the transition to college. Topics in the fall semester include narrowing the college list, staying organized, writing essays, and preparing a resume. In the spring, the seminars address the transition to college: time management, changing relationships, health, college safety, and financial responsibility.

WORLD LANGUAGES AND CULTURES

FRENCH

French I (full year) (course number 407)

French I begins the process of learning French as a second language in the Upper School. It is designed to give students the vocabulary and grammar of French and begin their adventure into the richness of the Francophone world. Using the *Bon Voyage 1* textbook, French I students learn how to converse in basic terms about needs, discuss events and services, and conduct both formal and informal conversations. During the third quarter, students take the National French Examination.

French II (full year) (course number 408)

Using the *Bon Voyage 2* textbook, students communicate in real-life situations using necessary vocabulary and structures. In various situations, such as the train station, the bank, the airport and the hotel, students are faced with cultural realities in the French-speaking world. The cinematic aspect of the course focuses on the award-winning movie “Sugar Cane Alley” set in Martinique. Students have regular access to computers and complete regular technology-based tasks. During the third quarter, students take the National French Examination.

French III (full year) (course number 409)

Using the *Imaginez* textbook, short films and website, students continue to build their linguistic and cultural foundations. Communicative competency is developed through thematically linked structures. Subjects studied include: living in the community, town life, the media, the value of ideas, changes in society, generation differences, science and technology, leisure time, work perspectives and natural resources. The classic French movie “Small Change” serves as the cinematic key element in this course. During the third quarter, students take the National French Examination.

French IV (full year) (course number 410)

French IV continues to advance student proficiency in all language skills. The fourth year is the year in which students take part in a two week exchange with a lycée in France. Using the *Histoire du temps* textbook, connections are made with other disciplines. Students develop their manipulation of language and hone their higher level thinking skills through the judicious mix of cultural, literary and historical texts. During all units, grammar is reviewed and introduced. The recent award-winning movie “The Chorus” enables students to consider comparison of cultures and school through the eyes of the students in the film. During the third quarter, students take the National French Examination.

Advanced Placement French Language (with permission) (full year) (course number 411)

In this class students prepare to take the AP French Language exam at the end of the year. Students develop a thorough understanding of French and its complexity. Varied class activities based on authentic material allow students to improve on their knowledge for the challenge of the written and oral examinations. During the third quarter, students take the National French Examination.

SPANISH

Spanish I (full year) (course number 401)

Spanish I lays the groundwork for successful second language acquisition. Classroom activities and text exercises are designed to span all four language skills: listening, speaking, reading, and writing. Students in this course begin communicating in Spanish. The student learns basic and intermediate vocabulary terms at this level, as well as verb conjugations in the present and past tenses. The students write short essays with the vocabulary acquired, search the Internet for information using sites in Spanish, watch videos, and create original projects that reflect their knowledge of the Spanish language and culture. During the third quarter, students take the National Spanish Examination.

Spanish II (full year) (course number 402)

This course emphasizes practical communication and encourages students to express their own ideas. The grammar and vocabulary in this course are taught within the thematic context in each chapter of the textbook (i.e. different real-life situations). In addition, the students write and illustrate their own children's story, watch videos, perform skits, and write short essays using the vocabulary learned in each chapter of the textbook. Another aspect taught is the study of Hispanic culture through reading assignments, research, and videos. During the third quarter, students take the National Spanish Examination.

Spanish II Honors (with permission) (full year) (course number 403)

This course emphasizes vocabulary and the more complex grammar structures that allow students to perform some daily practical tasks. These include: making phone calls, leaving a message on an answering machine, planning a trip, ordering food in a restaurant setting, asking for driving directions, and shopping for food and apparel. Class activities include searching the Internet for information using websites in Spanish, doing oral presentations, and performing skits. During the third quarter, students take the National Spanish Examination.

Spanish III (full year) (course number 404)

Students complete and review the study of basic grammar from Spanish II and then quickly move on to new grammar material. This includes: the imperfect and preterite tenses, new forms of the subjunctive, the future and conditional tenses, expressions with "hacer," etc. The development of sophisticated conversation is enhanced by continued practice with more advanced grammar, composition, and vocabulary. Students are expected to give oral presentations, in Spanish, throughout the course of the year on selected cultural topics. During the third quarter, students take the National Spanish Examination.

Spanish III Honors (with permission) (full year) (course number 422)

Spanish III Honors covers much of the same material as Spanish III, but in greater depth and at an accelerated pace to meet increased standards of achievement and understanding. Honors students also read a variety of works on Hispanic and Spanish culture, history, and art, and investigate four different literary genres of Spanish literature: narrative, poetry, drama, and the essay. Students analyze each of these genres by reading excerpts by authors such as Emilia Pardo Bazán, Sor Juana Inés de la Cruz, Pablo Neruda, Miguel de Cervantes and many others. The text

discusses “el panorama histórico y categorías fundamentales” before each section and touches upon the significance of art and aesthetics in literature. During the third quarter, students take the National Spanish Examination.

Spanish IV (full year) (course number 405)

This course is designed for fourth year Upper School Spanish students who wish to continue with the language at an advanced level but who do not wish to pursue Spanish at the AP level in the future. It is a course that requires some accelerated review of grammar and vocabulary from Spanish III, and it introduces students to more complicated structures and usages of the target language, such as the “pluscuamperfecto” and moods of the “subjuntivo,” that are set in various thematic contexts. Students are exposed to longer, more challenging reading assignments, magazine articles, Internet research, videos on different aspects of Spanish history, culture and language, short stories, and current events. They also read short literary selections from various periods so that they may be exposed to different styles and genres of classical and modern Spanish literature from several great writers. It is through an examination of Spanish literature that the students further appreciate the richness, variety, and complexity of the Spanish people, their history, and their intellect. The language of the classroom is Spanish. During the third quarter, students take the National Spanish Examination.

Spanish IV Honors (with permission) (full year) (course number 449)

Spanish IV Honors covers much of the same material as Spanish IV, but in greater depth and at an accelerated pace to prepare students who intend to take AP Spanish Language the following year. This Pre-AP Spanish Language and Culture course will be divided into units based on the six themes in the Curriculum Framework. Each theme is driven by a select few essential questions. To achieve this, students will explore all authentic sources including audio, print, and audiovisual material (news articles and videos, radio interviews, blog posts, infographics, Facebook groups, and more) in order to produce AP-format deliverables that include oral comparisons, persuasive essays, and interpersonal communication. The course sources are supplemented by excerpts from authentic literature, traditional print resources, and selected content when appropriate. The language of the classroom is Spanish. During the third quarter, students take the National Spanish Examination. This class is a prerequisite for AP Spanish Language.

Advanced Placement Spanish Language (with permission) (full year) (offered to students who have taken Honors Spanish IV) (course number 406)

AP Spanish Language is intended for students who wish to develop proficiency and integrate their language skills using authentic materials and sources. This course focuses on speaking and writing in Spanish at an advanced level in preparation for the AP exam in May. The course content reflects a wide variety of academic and cultural topics, including arts, history, current events, literature, culture, and sports. The materials used include the use of authentic sources in the form of radio and TV recordings, films, newspapers, literary texts, and magazines. The language of the classroom is Spanish. During the third quarter, students take the National Spanish Examination.

Advanced Placement Spanish Literature (with permission) (full year) (offered to students who have taken AP Spanish Language) (course number 423)

AP Spanish Literature is designed for students who have already taken the Spanish AP Language examination and want to explore the language in its literary form at an advanced level. It is a course that requires an accelerated review of grammar and vocabulary from earlier courses in Spanish, and it introduces students to more complicated structures and usages from the target language that are set in various thematic contexts. Students are exposed to longer, more challenging reading assignments, magazine articles, Internet research, videos on different aspects of Spanish history, culture and language, short stories, and current events. The students also read short literary selections by many great writers from various periods so that they may be exposed to different styles and genres, ranging from medieval epic poetry to the Golden Age to the magical realism of modern Spanish literature. The students' literary experience includes an in-depth analysis of the AP College Board Reading List and culminates in the AP Spanish Literature exam in May. It is through this extensive examination of Spanish literature that the students further appreciate the richness, variety, and complexity of the Spanish people, their history, and their intellect. The language of the classroom is Spanish. During the third quarter, students take the National Spanish Examination.

WORLD LANGUAGES AND CULTURES ELECTIVES

All courses use the elective grade scale unless otherwise noted.

Advanced French Literature (with permission) (semester elective) (course number 437)

This Advanced Literature course aims to have students become proficient in the fundamental language skills that enable students to read and understand prose and verse of moderate difficulty and mature content, as well as to formulate and express critical opinions in correct oral and written French. In addition, students will develop the ability to read and analyze critically and to discuss perceptively representative works of French Literature. All class activities and assignments are conducted exclusively in the French language. They include detailed reading and discussion of texts, paying close attention to character and theme, structure and style and to how these elements contribute to overall interpretation. Students will learn techniques of critical analysis; they will develop a vocabulary of literary terms and expressions to express their understanding of poetry, plays and novels. Regular class and home work will include the following: reading of assigned texts; preparing character outlines and analysis of themes, structure and style to prepare for class discussion, answering of questions, and essay writing and oral presentations on a subject related to the literature studied. Final Assessment will be conducted through a project written in French.

Global Studies Capstone (semester elective) (pass/fail) (course number 453)

This course is designed for seniors who are pursuing a Global Studies certificate and whose capstone projects have been approved. This course is not a requirement for the Global Studies certificate, but it is an option that provides students with the time during the school day to work on their project with the guidance of an instructor. In addition to working on their capstone projects, students are exposed to and inspired by the basic principles of global citizenship. By the

end of this course, students should be ready to present their capstone projects and finish their Global Studies certificate.

Linguistics (semester elective) (course number 451)

This course is designed to help students understand how languages work. Students learn how to break down words, sentences, sounds, and meaning, in English as well as in other languages. To achieve this, students explore and work with all the subfields of linguistics: grammar, syntax, morphology, phonetics, phonology, semantics, pragmatics, sociolinguistics, and second language acquisition. By the end of this course, students should feel empowered in their thorough understanding of their native language, as well as more confident in their learning of a second language.

Spanish Conversation and Culture (semester elective) (offered to students who have taken Spanish IV) (course number 450)

This class is designed for students who have completed Spanish IV but who do not wish to study Spanish at the AP level. Students in this class will enjoy talking in Spanish while exploring Spanish culture, including readings and films. Lessons revolve around a theme, and the corresponding content and activities allow students to put what they learn into practice in the context of that general theme. Students are guided to preview sections that precede every authentic film or reading. Post-viewing and post-reading activities and discussions help students to uncover broader themes. In summary, a communicative approach with progressive activities—from guided to open-ended, and individual, pair, and group—will encourage the student-generated, personalized communication that will permeate this course.

World Culture Awareness in the Francophone World (semester elective) (course number 430)

The World Culture Awareness course provides students with the tools to develop a global understanding of other cultures as preparation for the challenges of College and later life. Students' investigations will be based around a single essential question: 'What is my place in the world?' The course covers cultural diversity, linguistic diversity, families, and political systems. Through the use of articles, editorials and movies from the French-speaking worlds, students develop skills to help them consider, reflect, discuss, understand, examine, compare and build arguments. At the end of each unit, students complete a reflective project which requires them to read newspaper articles and documents, watch documentaries and movies, and meet individuals from other cultures. The curriculum incorporates elements from history, current events, literature, music and art, thus enabling students to gain a greater insight into world issues. This course does not apply to the three-year Foreign Language requirement for graduation, but it is strongly recommended for students who qualify for a language waiver or for those students who only study Spanish.

World Culture Awareness in the Spanish-speaking World (semester elective) (course number 431)

This course is similar to World Culture Awareness in the Francophone World, except that students in this class explore the cultures of Spanish-speaking worlds.

