

Lawrence Academy Course Curriculum

2015/2016 Academic Year

Key

Subject

Course Name • Course Number • Course Length

Prerequisite

Course description.

Arts

Ninth Grade Arts Program • 100 • Year Long

Required of all ninth graders

In conjunction with the English, history, and science programs, students will receive a foundation in the skills associated with creativity and artistic expression. Students will develop their ability to respect the creative space of the classroom; to experience the creative process of making art; to take risks with their thoughts, feelings, and ideas; to develop artistic voice; to understand and appreciate the uniqueness of their own work and respect the work of others; to explore playfully and spontaneously through different mediums; and to observe closely works of art and to be able to respond critically and articulately. Students will leave the program prepared for meaningful and disciplined study in any of the arts—dance, music, theatre, and visual arts.

Honors Dance I • 122 • Year Long

Prerequisite: Instructor's permission

The yearlong honors dance offering is designed for students who wish for a sustained and rigorous immersion into dance. The course will consist of a three-pronged approach: skills, choreography and performance. While we will touch upon all 3 elements during each term, the emphasis early on will be upon improvement of physical technique. The second point of emphasis will be upon choreography which itself may be divided into two components: material invention and compositional structure. The third point of emphasis will be performance skills. Adding foundation to all three aspects of the course will be research into the history and theoretical philosophy of dance as human endeavor. This class will also work collaboratively with the other honors level arts classes throughout the year, giving all students a multidisciplinary arts experience.

Honors Dance II • 123 • Year Long

Prerequisite: Instructor's permission

Honors Dance II will only be offered to those students who have excelled at Honors I. The curriculum will largely consist of the same components and emphases, with the following additions: an expectation of increased ability to focus and concentrate, increased complexity in compositional structure, and finally, greater leadership and greater consciousness of the subject matter and issues that today's artists are grappling with.

Honors Lawrence Academy Singers • 031 • Year Long

Prerequisite: Instructor's permission

Offered only for seniors who have sung in LA Singers for at least 3 trimesters and who have passed a musical proficiency test. In addition to participating as a full member of the choir by preparing repertoire and studying methods in sight singing, vocal technique, ensemble building, and expression, the Honors LA Singers student will serve as student leader. Students will lead in a variety of ways based on interest and experience, including running sectionals, conducting the choir, composing or arranging for the choir, researching and analyzing the repertoire, and assisting the conductor. The ensemble prepares concerts for the end of each trimester and repertoire for various events on and off campus throughout the year.

Honors Lawrence Academy Band • 032 • Year Long

Offered only for seniors who have played in LA Band for at least 3 trimesters and who have passed a musical proficiency test. In addition to participating as a full member of the band by preparing repertoire and studying technique, ensemble building, and expression, the Honors LA Band student will serve as student leader. Students will lead in a variety of ways based on interest and experience, including running sectionals, conducting the band, composing or arranging for the band, researching and analyzing the repertoire, and assisting the conductor. The ensemble prepares concerts for the end of each trimester and repertoire for various events on and off campus throughout the year.

Honors Theatre Ensemble • I025 • Year Long

Prerequisite: Instructor's permission

This year-long study will build on fundamental skills learned in previous theatre courses and will give students the opportunity for more in-depth study. The students' work will focus on further development of acting and directing skills as well as techniques for devising original work. Students will be asked to collaboratively develop and perform material in an ensemble, as well as to analyze and interpret theatrical literature from the point-of-view of the director, actor and designer. By exploring new ways of telling stories and communicating ideas theatrically, and by guiding their peers as fellow directors, the students will deepen their search for their own artistic voice. This class will also work collaboratively with the other honors level arts classes, giving students a multidisciplinary experience.

Honors Theatre Ensemble 2 • 128 • Year Long

Prerequisite: Instructor's permission

In this year long course, students will continue to work in ensemble with the students of the first year Honors Theatre course while being asked to more frequently take on the role of director. They will further hone the technical vocabulary and skills of that role, while delving even more deeply into acting technique and ensemble-created work. In this second level course, there will be more independently driven work in the form of supplemental major term projects outlined by the individual student, working toward finding their own artistic voice. In the spring trimester, students will adapt, write or select a one-act play that they will direct in a fully realized production.

Honors Music I • 019 • Year Long

Prerequisite: Instructor's permission

This year-long music course is designed for the advanced and motivated music student. A high level of proficiency on a primary instrument is required. It continues the course of study begun in previous music classes, performance ensembles, and private lessons. The students' work is focused on both theory and performance. Students work on attaining a high level of fluency with music theory through ear training, analysis, and composition. Simultaneously, they challenge themselves as performers by studying a wide range of repertoire and techniques. In addition, students study elements of music history and musicology to better inform both their compositions and performances. This class will also work collaboratively with the other honors level arts classes throughout the year, giving all students a multidisciplinary arts experience.

Honors Music II • 112 • Year Long

Prerequisite: Instructor's permission

This year long music course is designed for the students who took Honors Music I as a junior. In addition to the continuation of study in music theory and performance, students will prepare a Senior Recital and portfolio to be presented to the public and used in the college application process. Honors Music II students will be expected to take on leadership roles in group projects and to work independently toward their individual goals. This class will also work collaboratively with the other honors level arts classes throughout the year, giving all students a multidisciplinary arts experience.

Honors Visual Art I • 131 • Year Long

Prerequisite: Instructor's permission

This year long art course is designed for the highly motivated visual art student. It will give students the guidance and instruction they need to create portfolios of their own work, both for the college admission process and for their own artistic development. Students will be expected to experiment with new materials and techniques, as well as focus on one medium with the goal of producing a coherent body of work. While significant portions of the course will be dedicated to individual pursuits, the class will participate in group assignments and formal critiques. This class will also work collaboratively with the other honors level arts classes throughout the year, giving all students a multidisciplinary arts experience.

Honors Visual Art II • 132 • Year Long

Prerequisite: Instructor's permission

This year-long course is designed for the students who took Honors Visual Art I as a junior. Emphasis is placed on each student developing their artistic voice as they set their own goals, and build their portfolio. They are expected to work extensively within their principle media, as well as encouraged to continue to experiment with other media in order to broaden their range as visual artists. Instruction is individualized to each student as they work to achieve their goals and develop their artistic voice.

Electives

All 1/3 credit unless otherwise indicated. Open to all sophomores, juniors and seniors. Please Note: Ninth graders may participate in courses that have an audit option.

Dance–The World of Dance • 126 • Fall

No prerequisites

This dance course is designed to introduce students to the complexity and profoundness of dance. We will look at dance from a historical perspective, exploring the anthropological, social, and religious roots of dance. We will look at the legends and mythologies surrounding dance, trace their origins, and analyze their impact on our modern perceptions. This class will include both movement in the studio and readings on religion, psychology, and anthropology.

Dance–Choreography • 070 • Winter, Spring

No prerequisites

This class is designed to introduce students to dance composition involving the invention of raw material and then the structuring, or crafting, of that material into a piece of dance, or physical theatre. Students invent movement utilizing thematic, psychological, and musical stimuli. They further explore craft (or composition) and increase our understanding of dance “conventions” and physics: use of space, textural dynamics, speed, and the impact on the viewer. While this is not a dance technique class, it is a movement class, and students are expected to perform their own and others’ choreographic material both in class and in a public setting.

Dance–Introduction to Dance • 120 • Fall, Winter

No Prerequisites

In this class, we will focus on the physical side of dance. We will do exercises designed to increase flexibility, strength, and anatomical/kinesiological awareness. We will dance in a variety of “styles”, so as to build our confidence and facility to dance generally, and improve our performance capability.

Music–Introduction to Music • 018 • Fall, Winter, Spring

No Prerequisites

This course introduces students to the world of music. By using the fundamentals of music theory, music history, and musicology, students will become more active listeners and observers. Students will apply these skills by learning basic guitar and piano, and by composing and performing at various levels. This class is intended both for students who wish to continue their study of music and for those students who are interested in trying something for the first time.

Music–Lawrence Academy Singers • 013 • Fall, Winter, Spring

No prerequisites; 1 credit; 1/3 credit or audit options

LA Singers is a chorus for credit. You do not need prior experience to sing in the chorus. We will learn and create choral music in styles that span the depth and breadth of music history. Also incorporated will be methods in sight singing and vocal technique. Emphasis will be given to ensemble building, expression, and service. The ensemble will prepare concerts for the end of each trimester and repertoire for various events on and off campus throughout the year.

Music–Lawrence Academy Band • 014 • Fall, Winter, Spring

Prerequisite: Some prior musical experience on an instrument; 1 credit, 1/3 credit and audit options

This is an instrumental performance ensemble for credit. We will learn, perform, and create various musical arrangements in many different styles. Also included will be methods in improvisation, sight reading, and basic technique. The ensemble will prepare concerts for the end of each trimester and repertoire for various events on and off campus throughout the year.

Music–Musicianship • 011 • Fall, Winter, Spring

Because basic music literacy is needed for this course, Introduction to Music or teacher permission is a prerequisite.

(1/3 credit) Musicianship is based in traditional music theory. It covers tonal harmony analysis up through secondary functions. Also included are studies of rhythmic devices, voice leading, and text setting. Students will demonstrate their understanding of these concepts by composing works in various styles.

Music–Performance Studio • 012 • Spring

Prerequisite: Basic proficiency on an instrument

Performance Studio focuses on the student as a performer. The objective is to help musicians gain the tools to become better informed, confident, self-aware, and expressive performing artists. 1 class each week will be reserved for student performance and feedback. Student will explore public speaking, improvisation, dance, musical context, and more to strengthen their performances. As a class we will also practice the skills of giving useful, critical feedback.

Independent Music Instruction • 020 • Year Long

*No Prerequisite; 1/3 credit for full year or Audit options
Students will be charged the school's usual fee for lessons.*

Private Lessons offer students an individualized learning experience with a private instructor. In the lessons students develop technique and expression, while they explore the repertoire for their instrument. Students receive one 50-minute lesson per week and are expected to practice a minimum of two hours per week. Students will be required to perform in the 2 of the 3 recitals throughout the year and are encouraged to participate in the vocal and instrumental ensembles.

Theatre–Theatre Ensemble • 129 • Fall

No prerequisites

The best way to study and to appreciate an art is by doing it; therefore, the main focus of this introductory course is on making theatre an active and collaborative process. Creating effective theatre requires an understanding of story, character, composition, and the power of both verbal and non-verbal language. These basic elements are studied through the playing of theatre games, basic acting exercises, improvisation, ensemble work, and in-class performances, which help students to discover their own creative voice. The course begins by developing a strong ensemble that can work, play, create and solve problems together. Students critique their own and others' performances, and they learn how to evaluate what "works" on stage, as well as to understand why.

Theatre–Acting • 096 • Winter, Spring

No prerequisites

This course begins with basic exercises to hone the tools of the actor, beginning with focus, energy and imagination. Students examine classic and modern dramatic texts from the point of view of the actor, bringing the words on the page to life in exciting and dynamic ways. Working on plays ranging from the Greeks to Shakespeare to an array of modern playwrights, students experiment with a variety of performance styles. Continued skill development in voice, movement, and improvisation build a stronger foundation of tools for the actor.

Theatre–Physical Theatre • 009 • Winter

No prerequisites

The central focus of the course is the actor in movement, creating and performing theatre in a variety of physical styles, including mask and puppet theatre. Learning how to animate masks and puppets, literally to "make these objects alive," is one of the most valuable tools for the performer. Working on engaging the body, mind, and imagination fully to create character, place, and situations, students devise performances that utilize new techniques for expressing their own creative voices and they make theatre that explores ideas about the world.

Theatre–Improvisation • 091 • Fall, Spring

No prerequisites

This enjoyable and unpredictable course asks students to focus on listening, responding honestly, and making strong and truthful actor choices. Students develop a foundation of acting technique and work to solve problems collaboratively during spontaneous performances. Improvisation is also applied to the creation and rehearsal of scripted material. Activities include theatre games, storytelling, character development, comedy, and scene building.

Visual Arts–Drawing • 102 • Fall, Spring

No prerequisites; this course includes a studio fee

The goals for this course are twofold: the first is to introduce students to the techniques necessary to represent the world around them through observational drawing, and the second is for them to use those skills to express themselves creatively and artistically and to begin to establish an individual style and voice. Graphite, charcoal, ink, pastel, and colored pencil are some of the media used as students explore elements of art such as line, light and shadow, and composition. Peer critiques and individualized attention from the teacher help students develop both technical skill and creative voice.

Visual Arts–Painting • 104 • Fall, Winter

No prerequisites; this course includes a studio fee

This course introduces students to the many ways they can express themselves through the medium of paint. While some time is spent on learning color theory and painting techniques through class exercises and assignments, the majority of the course focuses on the creation of unique, individual art. Still-life, portraiture, working from images and abstractions are some of the genres that are available for exploration and experimentation. Peer critiques and individualized attention from the teacher help students develop both technical skill and creative voice.

Visual Arts–Photography I • 106 • Fall, Winter

No prerequisites; this course includes a studio fee

This is a black and white film class that challenges students to visually explore the world around them through the camera lens. Each week projects are assigned that encourage creative thinking and new ways of artistic expression. Camera operation in the manual mode for creative control is stressed. Film developing and enlarging photos in the darkroom is part of the weekly process. A short written reflection is required of every project.

Visual Arts - Photography II • 107 • Spring

Prerequisite: Photography I; this course includes a studio fee

This class builds on the students' knowledge of composition, camera function, film processing, and darkroom procedures to produce photographs of high quality. The basis and history of the photographic process from pinhole cameras to glass negatives to Polaroids are explored and utilized. Alternative processes in the camera arts realm are also explored.

Visual Arts - Digital Photography • 093 • Fall, Winter, Spring

Prerequisites: Photography I or instructor's permission; this course includes a studio fee

This course teaches the foundations of using a digital camera and editing photographic images in the digital darkroom. Students discover how to apply the concepts learned in Photography I to the digital medium. Adobe® Photoshop is used to create photographs that range from being subtly enhanced to dramatically altered. Various methods of creating prints and books are applied. Projects are assigned to help students understand the expressive qualities inherent in this photographic medium.

Visual Arts - Creating the Digital Photography Book • 094 • Winter, Spring

Prerequisite: Digital Photography or instructor's permission; this course includes a studio fee

Using digital photography, students will spend the trimester learning the aesthetic and technical aspects of photography. Students will be encouraged to express a personal style and explore areas of special interest. The ultimate goal of the course will be the creation of a book that contains cohesive thematic content as well as demonstrating an individual expressive style. Design, layout, editing and software usage will be important skills in creating this personal artifact.

Visual Arts - Sculpture • 136 • Fall, Spring

No prerequisites; this course includes a studio fee

This course introduces students to the challenges involved with creating art in three dimensions. The class focuses on both the conceptual phases of an assignment and the technical issue of actually building the work of art from the materials at hand. Clay, metal, wood, plaster, and stone are some of the materials that are used as the class deals with issues such as space, form, and content. Emphasis is on the students' expressing their own personality through their work, as well as developing technical skills. Peer critiques and individualized attention from the teacher help students develop both technical skill and creative voice.

Visual Arts – Printmaking • 177 • Winter, Spring

No Prerequisites; this course includes a studio fee

This course covers a wide range of printmaking techniques from very fast and spontaneous mono-printing to slower and more deliberate linoleum block printing. Printmaking can make use of drawing, painting, and even carving techniques even before the actual printing process. This course introduces students to the artistic potential of printmaking as they learn how to express themselves through the materials used and the printing process. Peer critiques and individualized attention from the teacher help students develop both technical skill and creative voice.

Visual Arts–Filmmaking • 090 • Winter

No Prerequisites

This course is a fast-paced introduction to the art of filmmaking. Students will learn to plan, shoot and edit many short movies in small groups. We will watch and critique each other's pieces as we work together to build a definition of what makes a good film.

Visual Arts–Multimedia • 098 • Winter

No Prerequisites; this course includes a studio fee

Students will explore the connection between what they want to say and the media they choose to convey their artistic ideas. They will receive instruction in printmaking, collage, drawing, and 3D assemblage. Incorporating design principles, students will use alternate surfaces, as well as media associated with the technological age, to create expressive work. The historical and social perspectives of these artistic processes and how they relate to our present day will be examined. Students will maintain a sketchbook/journal, and they will participate in peer critiques.

Visual Arts–Art of the Italian Renaissance • 176 • Spring

No Prerequisites

Some of the most famous works of art were created in Italy during the period now known as the Renaissance. Who were these master artists and how does their work influence us today? Through slides, videos, and books you will discover and research this rich artistic culture and explore first hand some of the techniques used to produce the art. A fresco painting project and a sketch journal will constitute the studio art portion of this class.

Visual Arts–Ceramics • 105 • Winter

This course includes a studio fee

This course will introduce students to the world of clay. Hand-building, wheel-throwing, and glazing techniques will all be explored as students learn how to express themselves through this ancient and versatile medium. Both traditional vessel-making and contemporary sculptural methods will be used. While introductory in nature, this course can also be an appropriate place for students with some experience to advance their skills.

English

Ninth Grade English Program • 201 • Year Long

Required of all ninth graders.

In conjunction with the Arts, History and Science programs, the English program in the NGP focuses on developing students' understanding of themselves as readers and writers by asking them to read literature in four genres—short story, poem, and novel—and to create interpretations which pay close attention to the text, not only using evidence to support the student's reasoning in inferences and conclusions, but also using fundamental literary terms and devices. Students express their ideas by speaking and listening in seminars and presentations as well as by writing in analytical essays, personal essays, poetry and stories. A preliminary study of formal matters in writing, such as vocabulary, grammar, usage, mechanics and style, is included in all NGP classes.

Combined Studies Course • 202 • Year Long

Required of all 10th graders.

As they do in the Ninth Grade Program, students in the Combined Studies Course are not told what to think but are asked to make determinations for themselves. The CSC, required of all 10th graders, draws on the common skills and foci of English and history. These skills are reading, writing, speaking, listening, and thinking, and students practice them in both disciplines through reading texts, writing papers, researching, and participating in seminars and presentations. The CSC investigates primary and secondary sources revolving around the theme the individual and society throughout the ages and around the globe. As in the NGP, teachers in the CSC work together to understand students' needs and to reinforce skills practiced in all classes.

Junior English Seminar • 205 • Year Long

No prerequisite

In this full-year course required of all juniors except those recommended for Honors Junior English Seminar, students focus on developing their analytical reading, thinking, and writing skills through their study of short fiction, poetry, novels and a Shakespeare play. One hallmark of the junior year is the Judith French Poetry Recitation Competition, which culminates in February. An emphasis on writing the analytical expository essay continues all year, with opportunities to write short fiction, poetry, and the personal essay. Considerable emphasis is placed on class participation in discussions and formal seminars and on rewriting and editing using proper English grammar.

Honors Junior English Seminar • 206 • Year Long

By recommendation only; a student must be recommended to this course by his sophomore teacher, have a B+ average or higher in the sophomore year, and be deemed capable of the demands of honors work. An incoming junior new to the school must also submit a graded writing sample from the past year and have SSAT's above the 50th percentile.

In this more demanding honors section of Junior English Seminar, students read three to five works of fiction, a Shakespeare play, several short stories, and a great deal of poetry. Writing centers on analytic, expository and comparison/contrast essays with occasional in-class writing. Students write personal essays, poems, and stories as well, and their works are critiqued by peers. Class participation in discussions and seminars is required and expected, and students are also expected to start discussions themselves as often as possible.

Senior English Seminar • 208 • Year Long

No prerequisite

This is a full-year course required of all seniors except those selected for Advanced Placement English or for the yearlong series of Honors Writing electives. Senior English Seminar is a yearlong course that focuses on six skills—reading, writing, speaking, listening, thinking, and organizing—and the attributes required for success in those skills, with the goal of helping students understand themselves as learners so that they will graduate armed with self-knowledge, prepared to excel in college and beyond. Students practice the skills and attributes as they study poetry, fiction, and memoir, and they are encouraged to develop their own ideas about and approaches to their work. An emphasis on self-assessment increases their understanding of their learning as the year progresses and serves as the foundation for the spring’s work, in which each student designs and implements an independent project to demonstrate his/her practice of the attributes and mastery of the six skills.

Advanced Placement English • 209 • Year Long

Open to seniors Prerequisite: By recommendation only; a teacher recommendation based on department expectations for honors level work, an A- average or higher in the junior year, a B+ average or higher in the junior year in an honors course, and for new students, an SAT Verbal of 550 or higher.

This year long course is designed to be equivalent to a college freshman English course. The expectation in quality and quantity of work is high, and a serious commitment on the students’ part is essential. The course will provide intensive instruction in the critical reading of literature and frequent opportunities to analyze literature in writing. In-class writings are the central focus. Note: All students enrolled in this course are required to take the AP exam in the spring.

Honors Writing Electives

*Open to seniors and *juniors; prerequisite: Seniors may take the entire year’s offering of Honors Writing electives as their only English class, provided they have been recommended to do so by the English department. To be eligible, a student must meet the following criteria: a teacher recommendation based on department expectations for honors level work, an A- average or higher in the junior year, a B+ average or higher in the junior year in an honors course, and for new students, an SAT Verbal of 550 or higher.*

Juniors or seniors who take Honors Writing as a second English course may take either of the Fall and winter introductory electives but are not required to take both. However, students may not take the spring term continuing course without having taken at least one of the introductory courses.

*Because these electives are senior honors electives, juniors who sign up for them as a second English class in addition to Junior English Seminar should do so only if they have a passion or talent for poetry and/or fiction. The department gives seniors preferred placement in these electives.

Fall–Honors Writing I - 210

Winter–Honors Writing II - 247

Spring–Honors Writing III – 281

ESL

ESL Intermediate Skills • 293 • Year Long

This course emphasizes acquiring skills in English that will allow students to improve their academic achievement in their other courses. Grammar is studied with special attention paid to problem areas for learners at this level, and a special review for the TOEFL exam is part of the spring term. From sentences to completed essays, students practice writing on various topics assigned weekly. Vocabulary study is emphasized in conjunction with the development of reading skills.

ESL Intermediate Literature • 290 • Year Long

This class focuses on strengthening the skills of reading and writing about different forms of literature. Students begin the year by reading short stories while working on comprehension and vocabulary. Later, students are taught a variety of strategies with which to better analyze novels in greater detail in class and in written assignments. Participation in class discussions and seminars on literary analysis is emphasized.

ESL Intermediate Sociocultural Studies • 294 • Year Long

This ESL class investigates the socio-cultural landscape of the United States as the means of strengthening those critical academic skills needed by students whose native language is not English. Using a sociological studies model, students learn about how the American value system is reflected in the icons, behaviors, and practices of the American people. Students also contrast and compare their own cultural practices and norms with those of the host culture. To target skill development, this sociocultural content is delivered in a variety of ways. Students are also introduced to research skills and the effective use of the library. They are instructed in the use of PowerPoint and other programs in order to present their findings. Thus, public speaking and discussion skills are targeted. Initial oral language practice in the language laboratory includes correct pronunciation of specific sounds, use of intonation patterns, and listening skills to strengthen meaningful communication. Lastly, a special emphasis is given to the teaching of the study skills needed in a student-centered classroom.

ESL Advanced Skills • 289 • Year Long

This course allows students to review specific topics that are problematic for ESL students while pushing their spoken and written expression to higher levels. In addition, students must work to increase their active vocabulary to degree necessary to succeed at the next level. In their essays, students must be able to prove mastery of the four rhetorical writing styles and the correct use of grammar expected at this level by the ESL curriculum. In addition, students must master the note taking, listening and speaking skills outlined in the curriculum goals. Finally, students must be able to read at grade level with at least 75% accuracy without the use of external aids or assistance. Thus, students are expected to maintain a great degree of self-discipline in their studies.

ESL Advanced Literature • 291 • Year Long

In this course, students work to become active readers and analytical thinkers. The course uses a variety of novels to help students practice their reading notes and analysis of literary devices. In class, students study the idea of a genuine question about a text, and practice participating in class discussions. Presentation of evidence from the readings is expected daily. Students also learn new vocabulary in context, and they must work towards reading at grade level by the end of the course.

ESL Advanced Sociocultural Studies II • 295 • Year Long

This course allows students to delve into a variety of topics that surround American culture and values while increasing their English skills and research skills to succeed at the next level. Key basic skills required for mastery are the ability to synthesize information and to think critically about the material. Writing that is based on information from multiple sources must include personal thinking and analysis. Students are expected to meet outside of class with the instructor on a regular basis.

ESL Advanced History • 693 • Year Long

This course impels students to gain the skills and vocabulary necessary to succeed in the next level. Students use primary and secondary documents to acquire knowledge of the material. In the discussions that follow, participation is mandatory. Students practice role plays and debates on various topics. Writing assignments are based on discussions and readings. Essays are expected to be coherent, logical, and free of any errors that impede meaning or audience comprehension. Students must master the ability to create outlines and to take listening notes during class.

ESL Bridge Skills • 288 • Year Long

This ESL class investigates the socio-cultural landscape of the United States as the means of strengthening those critical academic skills needed by students whose native language is not English. Using a sociological studies model, students learn about how the American value system is reflected in the icons, behaviors, and practices of the American people. Students also contrast and compare their own cultural practices and norms with those of the host culture. To target skill development, this sociocultural content is delivered in a variety of ways. Students are also introduced to research skills and the effective use of the library. They are instructed in the use of PowerPoint and other programs in order to present their findings. Thus, public speaking and discussion skills are targeted. Initial oral language practice in the language laboratory includes correct pronunciation of specific sounds, use of intonation patterns, and listening skills to strengthen meaningful communication. Lastly, a special emphasis is given to the teaching of the study skills needed in a student-centered classroom.

ESL Bridge Literature • 292 • Year Long

This advanced ESL course assumes knowledge of and competency in intermediate skills in English. It serves as a bridge to the mainstream classroom and is, therefore, more demanding. Readings include short stories, poetry, a play by Shakespeare, and novels in their original form. Writing assignments are given on a regular basis, allowing students the opportunity to practice their editing and peer-critiquing skills. Students are expected to participate actively in discussions and are encouraged to form their own interpretations of the readings.

ESL Bridge History • 694 • Year Long

This course is designed to give students a greater depth of preparation for the mainstream history classroom. It allows students to work on the skills of reading and writing at a much higher level but still within an ESL context. Primary source readings in history allow students to practice and improve classroom discussion skills while gaining familiarity with the content of Western Civilization and U.S. History courses. Note taking while doing assignments and while participating in a class is also a focus of the course. Research skills are practiced in conjunction with a short term paper and other projects. Each student is expected to participate daily in class.

ESL/U.S. History • 695 • Year Long

Seniors only and department recommendation

The ESL U.S. History course is taken as a substitute for the mainstream U.S. History course, but only at the ESL director's recommendation and only by senior students whose native language is not English. Though students attend the regular U.S. History section, the expectations are modified for those students whose English skills preclude success otherwise.

History

Ninth Grade History Program • 603 • Year Long

Required of all ninth graders

In conjunction with the English, science and arts programs, the history program will emphasize fundamental history and social science skills: using the library, researching and gathering evidence and using evidence to support inferences and conclusions. Using both primary and secondary documents, there will be an emphasis on reading to identify and comprehend main and subordinate ideas and to summarize the ideas in one's own words. Writing skills will include the formulation of a thesis; the ability to organize, select, and relate ideas and to outline and develop them in coherent paragraphs; and the ability to take meaningful and accurate notes from class discussions and reading assignments. Reasoning skills will include the ability to analyze and synthesize and the ability to draw reasonable conclusions from information found in various sources. Special emphasis will be given to helping students navigate various types of information and distinguish what comprises a valid and appropriate resource.

Combined Studies Course • 605 • Year Long

Required of all 10th graders

As they do in the Ninth Grade Program, students in the Combined Studies Course are not told what to think but are asked to make determinations for themselves. The CSC, required of all 10th graders, draws on the common skills and foci of English and history. These skills are reading, writing, speaking, listening, and thinking, and students practice them in both disciplines through reading texts, writing papers, researching, and participating in seminars and presentations. The CSC investigates primary and secondary sources revolving around the theme the individual and society throughout the ages and around the globe. As in the NGP, teachers in the CSC work together to understand students' needs and to reinforce skills practiced in all classes.

U.S. History • 601 • Year Long

Prerequisite: CSC History year long; open to juniors

U.S. History is a year-long course required for graduation. It is usually taken in the junior year. U.S. History consists of a series of problems (for example: The American Revolution, The Civil War, The Great Depression or the Civil Rights Movement) which, taken together, are an introduction to American History. Students are encouraged to think as historians do—using a variety of sources to answer questions, construct interpretations and find meaning in historical events. Students undertake a major research project. In this way, U.S. History continues the work of the Ninth Grade Program and the Combined Studies Course. Simulations, primary source readings, analytical writing and research skills will be emphasized in the course.

Honors U.S. History • 606 • Year Long

Prerequisite: Department recommendation

U.S. History Honors will resemble U.S. History in its problem-based approach to the course. Students will use a variety of sources to examine significant events in our past, such as the American Revolution, the Civil War and Reconstruction Era, and the Civil Rights Movement. Students will mainly use primary documents, along with secondary sources, period literature, and films, in order to confront the important issues in American History. An emphasis will be placed upon analytical writing, but students will also be expected to contribute to class discussions on a daily basis, complete regular reading assignments, and write a substantial research paper. Not only will U.S. History Honors move at an accelerated pace, but students will be required to look deeply into the readings in order to gain as full an understanding of American History as possible.

Human Geography • 632 • Year Long

No prerequisite; open to juniors and seniors

The many ways in which human societies create, alter, and interact with their cultural and physical environments is the main focus of those studying geography. With that in mind, the purpose of this course is to introduce students to a wide range of topics studied in the expanding field of geography. We will explore a number of important themes and will often investigate in-depth case studies that show how geography and culture shapes the political, social, and economic processes of the world around us. Students will learn to recognize how natural and man-made landscapes reflect and determine human habits, activities, and relations. The purpose of this class is to help students to draw on these insights, combine them with new ideas, and structure them in such a way that they may further develop a coherent perspective on the contemporary and changing world.

Western Civilization • 608 • Year Long

Prerequisite: U.S. History; open to seniors and juniors

Western societies traditionally look back at the ancient Greek and Roman civilizations as the primary foundations of the Western world. The Greeks and Romans provided the basis for political theory, rational philosophy, art, architecture, economics, and historiography. Students will study the history and culture of both ancient societies in order to understand how each began, developed, thrived, and then ultimately fell. The study of ancient Greece and Rome allows students to have a fundamental understanding of philosophy; in Practical Philosophy, students will study a variety of topics ranging from epistemology (How do we know?) to ethical values.

Honors Senior History: Nukes and Commies • 602 • Year Long

Prerequisite: U.S. History and department recommendation

How did the United States get to the point of conspiring to give Fidel Castro an incurable skin fungus or of assassinating him with an exploding seashell? Why have the following become part of our vocabulary: brainwashing, overkill, failsafe, hotline, McCarthyism, MAD, ICBM, SALT, and Dr. Strangelove? The goal of this course is to make today's news understandable through a study of America's relationship with the rest of the world since World War II. Special attention will be given to the competition—known as the Cold War—between the U.S. and various communist nations. Students in this course will examine communism in theory and in practice in Russia, China, and Cuba, as well as the special role of nuclear weapons and strategic thought in the Cold War. There will be an extensive examination of such topics as the origins of the Cold War (1945–1952), the Cuban Missile Crisis, and Vietnam, and students will study how the Cold War affected popular culture by watching and discussing films such as *The Invasion of the Body Snatchers*, *The Manchurian Candidate*, and *Dr. Strangelove*. To better understand the period following the Cold War, students will be called on to learn about Iraq, Iran, Afghanistan, and the United States relationship with Russia. There will be frequent writing assignments and a demanding schedule of reading taken from a variety of sources. Critical thinking skills, logic, and argument will be stressed. Students must be recommended by the history department.

Advanced Placement U.S. Government and Politics • 604 • Year Long

Prerequisite: U.S. History and department recommendation; open to seniors

This college-level course prepares students for the AP U.S. Government examination. During the year-long course, students will become familiar with the nature, framework, traditions, and values of the American political system. The course will focus on the three basic institutions of American government: Congress, the presidency, and the judiciary. Using these institutions as the framework of the course, constitutional underpinnings of our government, political parties, the bureaucracy of American government, the interest groups that try to influence decisions, civil rights, and civil liberties will all be discussed thoroughly. Students can expect this course to be demanding. There will be substantial reading and essay writing about both political

theory and current politics. There will be a strong emphasis on discussion and the analysis of texts, and students can expect regular writing and rewriting assignments. Students must be recommended by the history department.

Note: Students enrolled in this AP level course are expected to complete summer readings and are required to take the AP exam.

Electives

The Assassination of John F. Kennedy • 631 • Fall, Winter

No prerequisite; open to seniors and juniors

This class is designed for students who are developing an interest in law and/or modern history and politics. The goals of the class include the study of evidence as used by both the historian and the attorney. Other goals include learning about the prominent issues of the late 1950s and early 1960s, the election, administration, and assassination of Kennedy and the various theories propounded as to who committed the murder. In pursuit of these quests, we will proceed to analyze the available evidence, including medical and other physical evidence, witness/testimonial evidence, and circumstantial evidence (such as changes in policy following the assassination). After studying the findings of the two major governmental investigations (the Warren Commission and the Joint Congressional Committee on the assassinations of Kennedy and Martin Luther King Jr.), and those of prominent researchers, the students will be asked to create their own theory, or subscribe to an existing theory, and to back up their hypotheses with legitimate and substantial evidence.

Criminal Justice • 641 • Fall

No prerequisite; open to seniors and juniors

This is a course designed to introduce the U.S. criminal justice system. General areas of study will include law enforcement, the courts, and the prison system. The course will address the role of investigators and prosecutors as well as the rights of the accused, and students will develop an understanding of how the entire system works from the time of the crime to the acquittal or conviction through the carrying out of the sentence. There will be a variety of readings and projects, as well as papers and exams.

Ancient Greek History • 677 • Fall

No prerequisite; open to seniors and juniors

Why do the ancient Greeks occupy such a prominent place in conceptions of Western culture and identity? What about them made generations of influential scholars and writers view Hellenic culture as the uniquely essential starting point for understanding the development of Western civilization? Ancient Greek culture provides the basis for democracy, tragedy and other artistic forms, rational philosophy, and the writing of history in Western civilization. In this course we will study the rise of ancient Greece from the Bronze Age through Alexander the Great's lifetime, reading both primary and secondary sources to discover the ancient Greek perspective.

Ancient Rome History • 672 • Winter

No prerequisite; open to seniors and juniors

Although the Roman civilization ended with the Fall of Rome in 476 AD, its impact upon the Western world is immeasurable. This theme-based course will examine the evolution of the Roman world from its founding by the legendary twins Romulus and Remus to its eventual collapse. Students will investigate specific themes for each period of Roman history as a method to focus the study of such a vast time period. The class will also analyze the impact of the Roman world upon the modern Western world.

Psychology • 682 • Winter

No prerequisites; open to seniors and juniors

The study of human behavior is very complex, and this course is meant as both an introduction to studying psychology and an opportunity to delve deeply into different areas of psychology. There is much to learn about humans and their behavior, and there is often a lively debate over the causes of behavior. We will look closely at a variety of famous experiments about different aspects of human behaviors and use these as the starting points of our discussions and work. Students will be required to keep a journal/log, which will be submitted regularly. There will also be papers and exams.

Painters, Paintings and Politics: French Art History • 639 • Winter

No prerequisite; open to seniors and juniors

This class is designed as an introduction to art history through a French lens. Artistic movements can reflect the mood of society; therefore we will examine the undeniable link between the two, using the art as platform for talking about history. We will dive into the Renaissance, the French wars of religion, the Counter-Reformation, the reigns of Henri IV, Louis XIV, Louis X, and Louis XVI, the rise of the middle class, the French Revolution, and the Industrial Revolution from a unique perspective. By studying and analyzing mannerism, baroque, classicism, rococo, neoclassicism, romanticism, naturalism, realism, impressionism and post-impressionism, students will be able to see how the art of the day reflected the political and social climate of the country. Students will be responsible for analyzing the art themselves, and class presentations will be frequent. A working knowledge of Greek myths will be essential in puzzling together the symbols and messages that artists left behind for us to discover. **Students enrolled in French 5 or 5H next year may not sign up for this course.*

Philosophy • 607 • Spring

No prerequisite; open to seniors and juniors

This course is designed to provide the tools with which we can analyze and try to answer questions that have been challenging people for millennia. Students will first learn the means by which these questions may be addressed, analyzing the roles of concepts such as reason, emotion, and perception in answering philosophical questions. The class will then use those methodologies to answer the great questions (How do we truly “know” anything? Why are we here? What does it mean to be good or evil, and how is that determined?). Students will be required to keep a journal in which they will reflect on these questions; this journal will be submitted regularly.

Economics • 640 • Spring

No prerequisite; open to seniors and juniors

Economics can be a complex and sometimes confusing subject. This course will serve as a way to “demystify” economics and its major concepts. We will look at some of the major theories of economics, as well as some of the basic macro and microeconomic principles. Students will use recent events as a means of applying what they are learning. There will be both papers and exams, and regular reading and writing assignments.

Gender, Family and the Media • 638 • Spring

No prerequisite; open to seniors and juniors

How does the media influence who we become? Who controls the message? Who controls the media? This course will examine some of the relationships between the media in the United States and the social constructions of gender and family. After a brief introduction about the evolution of the media, and gender issues, students will begin to investigate the relationship between media and culture. General areas of studies will include media stereotypes in advertising, film and television, masculinity and femininity, and media literacy. The course will investigate media representations of gender, analyze media culture and develop an appreciation of the media's cultural influence. Students will be expected to analyze primary sources, write short papers, complete a journal of their observations and present their findings and discuss the issues surrounding the media and social/cultural relationships.

Language

French

French 1 • 301 • Year Long

No prerequisite

This course provides an introduction to the study of French. The aim of the course is to teach the student to speak, understand, read and write the language, with the stress on communicative competence. The course also introduces students to cultural and geographic information about the French-speaking world. The language laboratory is an important learning tool throughout the course.

French 2 • 302 • Year Long

Prerequisite: French 1

French 2 strives to achieve the same goals as French 1. Structure is analyzed as necessary, though the emphasis remains upon inductive learning and the development of oral proficiency. Level 2 also stimulates cultural awareness, expansion of vocabulary and the development of writing skills. The language laboratory continues to be an essential part of the course.

French 3 • 303 • Year Long

Prerequisite: French 2

Students consolidate and expand on complex points of French grammar (compound tenses, subjunctive mood, relative pronouns, and sentence structure) while developing their reading ability through a variety of cultural readings, informal dialogues, interviews, letters and short stories. Emphasis is on oral and written communication, with the course being conducted almost entirely in French. Required to write six essays entirely in French, students are gradually introduced to literary analysis as they develop their written expression. The language laboratory is used weekly to enhance language skills.

Honors French 3 • 308 • Year Long

Prerequisite: French 2 and Department recommendation

French 3 Honors follows a similar curriculum to French 3; however, it does so at a more accelerated pace. French 3H students are responsible for more cultural and historical readings, and greater content than their French 3 counterparts. French 3H students must also complete longer assignments, write detailed essays, and answer more questions on each test and quiz. Students in French 3H are held to a high standard in their class participation and critical thinking.

French 4 • 304 • Year Long

Prerequisite: French 3

This course is taught entirely in French and covers grammar, literature and cultural topics. An intensive study of French grammar starts the year off with the goal of maximizing oral and written communication through research projects, presentations, compositions and creative dialogues and skits. The literature component exposes students to new vocabulary; reinforces grammar points; and develops reading comprehension, written expression, and literary analysis skills through a variety of prose and poetry readings of moderate difficulty. Students use the World Wide Web to research other cultural topics. The language laboratory is also used for drills, pronunciation, listening comprehension, and oral proficiency exercises.

Honors French 4 • 309 • Year Long

Prerequisite: French 3 and department recommendation.

French 4 Honors follows a similar curriculum to French 4; however, French 4H students are responsible for more cultural and historical readings, and greater content than their French 4 counterparts. French 4H students must also complete longer assignments, write in-depth essays, and answer more questions on each test and quiz. Students in French 4H are held to a high standard in their class participation and critical thinking. Also, each term French 4H students must complete a research project. They write a substantial essay, create a visual aid and present their findings to the class.

French 5 • 305 • Year Long

Prerequisite: French 4

Students entering French 5 will study French through three different lenses – literature, cinema and art history. Studying literature in the Fall, French 5 students will explore themes, metaphors and historical context through authentic Francophone literature. In the winter, French 5 students will study French culture and history through film, studying character, plot, history and relevant themes. Art history will be the focus of French 5 students in the spring. They will study the major French art movements from the Renaissance to Impressionism, covering the major French historical events, how they influenced art, and how art influenced the population at the time. An emphasis is placed on spoken French, as students speak only French while in class. Written assignments, longer essays and periodic tests will assess the student's written French and comprehension of the material, as will frequent presentations on the material. French 5 students complete a term-long project where they incorporate what they have been learning into an actual 30 minute lesson they teach to their classmates. Students registering for French can expect to receive assignments during the summer.

Honors French 5 • 306 • Year Long

Prerequisite: French 4 and department recommendation

Students of French 5 and French 5 Honors are in the same classroom. Hence, French 5 Honors follows the same curriculum as French 5. French 5 Honors students, however, are responsible for more cultural and historical information than their French 5 classmates. Students will complete longer written assignments, give more frequent oral presentations, and answer more questions on each test and quiz. Students in French 5 Honors are held to a higher standard in their class participation and critical thinking. Each term French 5 Honors students will complete a longer, more in-depth project than students in French 5. Students registering for French 5 Honors can expect to receive assignments during the summer.

Latin

Latin I • 311 • Year Long

No prerequisite

Students are introduced to basic vocabulary, forms, grammar, and syntax needed to read and understand Latin. There is a great deal of practice in sight-reading as the students become more proficient. Through the study of Latin derivatives, students strengthen their English vocabulary. An appreciation for and understanding of the Roman people and their many contributions to the world in which we live will be a concomitant goal throughout the year.

Latin II • 312 • Year Long

Prerequisite: Latin I

Students will continue their extensive study of vocabulary, forms, and syntax while perfecting their Latin reading skills. These Latin readings, as well as accompanying cultural notes, will provide further insight into Roman customs and institutions.

Latin III • 313 • Year Long

Prerequisite: Latin II

Having completed all of the essential grammar in Latin II, Latin III is the first course where students consistently read great Latin authors. Grammar review is integrated into the analysis of the text being read. Typically students are asked to look over lines of a piece of text for grammatical constructions and vocabulary that they do not recognize. Then students proceed to translation after grammar and vocabulary are made clear. Typical readings are: term 1–Philosophical essays of Cicero; term 2–Myths from Ovid’s *Metamorphoses*; term 3–Catullus’ poems. Students are required to do a special project each term such as rewriting one of the myths in a contemporary setting; creating an artistic rendering of a scene from the literature; having a propaganda trial on Augustan politics.

Honors Latin III • 314 • Year Long

Prerequisite: Latin II and department recommendation

Having completed all of the essential grammar in Latin II, Latin III is the first course where students consistently read great Latin authors. Grammar review is integrated into the analysis of the text being read. Typically students are asked to look over lines of a piece of text for grammatical constructions and vocabulary that they do not recognize. Then students proceed to translation after grammar and vocabulary are made clear. Typical readings are: term 1–Philosophical essays of Cicero; term 2–Myths from Ovid’s *Metamorphoses*; term 3–Catullus’ poems. Students are required to do a special project each term such as rewriting one of the myths in a contemporary setting; creating an artistic rendering of a scene from the literature; having a propaganda trial on Augustan politics.

Honors Latin IV • 316 • Year Long

Prerequisite: Department recommendation

This course includes three distinct topics. In the Fall term, the focus is on Latin composition, which includes an intense review of advanced grammar. The winter term consists of excerpts from the poetic works of Horace and a study of his influence on the political atmosphere of Rome under Augustus. In the spring, the students undertake the study of Roman drama through translating and staging, in part, a play by Plautus. The prerequisites of this course are the completion of at least Latin 3 and the recommendation of the teacher. A serious interest and commitment on the part of the student is required.

Spanish

Spanish 1 • 331 • Year Long

No prerequisite

This course offers an introduction to the study of Spanish, with an emphasis on the active and practical use of the language for communication. Vocabulary and grammatical structures are learned through assimilation and reinforced through oral drills and written exercises. Spanish is frequently spoken in class, and reading Spanish language material is encouraged. Spanish and Latin American geography and culture are integral parts of this course. The language laboratory is an important learning tool throughout the course.

Spanish 2 • 332 • Year Long

Prerequisite: Spanish 1

Emphasis on speaking and writing continues in the second year. The focus remains on communicative skills in the target language supplemented by practical applications of grammar principles. The students' comprehension level is tested through active oral, aural, written, and reading exercises. Spanish is spoken throughout the course, but English may be used to explain some points of grammar. By the end of the year, students should be able to handle most situations, which require basic communication in the language. Spanish and South American culture are an integral part of the course. Supplemental material is used in the language laboratory.

Spanish 3 • 333 • Year Long

Prerequisite: Spanish 2

Spanish 3 emphasizes a review and expansion of grammar topics, as well as the refining of written and oral skills. Correct application of complex grammar structures is practiced through reading and writing articles and texts dealing with Hispanic literature, art, and culture. The class is conducted in Spanish to the greatest extent possible, and a student has ample opportunity to use the language and thus to improve fluency. The language laboratory is used for further development of language skills and cultural appreciation.

Honors Spanish 3 • 338 • Year Long

Prerequisite: Spanish 2 and department recommendation

Spanish 3H follows a similar curriculum to Spanish 3; however, it does so at a more accelerated pace. Spanish 3H students are responsible for more cultural and historical readings, and greater content than their Spanish 3 counterparts. Spanish 3H students must also complete longer assignments, write in-depth essays, and answer more questions on each test and quiz. Students in Spanish 3H are held to a high standard in their class participation and critical thinking.

Spanish 4 • 334 • Year Long

Prerequisite: Spanish 3

Spanish 4 is conducted entirely in Spanish by both the teacher and the students. The course aims to further develop proficiency in reading, writing, listening, and speaking Spanish through a variety of drills, presentations, debates, discussions, projects, grammar reviews, and weekly use of the language laboratory. A variety of authentic reading selections is used to advance reading comprehension and analysis skills, to explore historical time periods and culture, and to compare and contrast literary pieces and their style throughout the Hispanic world.

Honors Spanish 4 • 344 • Year Long

Prerequisite: Spanish 3 and department recommendation

Candidates for Spanish IV Honors should demonstrate strong conversational skills and be eager to communicate exclusively in the target language. One of the primary goals of Spanish IV Honors is to improve the student's oral proficiency. Therefore, it is imperative that any student entering the course be willing to participate frequently in class discussions, debates and conversations. In addition, the student should demonstrate a strong aptitude for the study of Spanish grammar. The course begins with a thorough review of previous grammar topics and moves quickly into an in depth study of the subjunctive mood (both present and past tense). Additional grammar topics are introduced to further expand the student's knowledge. At the same time, the course seeks to develop reading and writing skills while simultaneously exposing students to a variety of cultural experiences and lessons. (Students registering for Spanish 4 Honors can expect to receive assignments during the summer in order to ensure continuity from one level to the next.)

Spanish 5 • 335 • Year Long

Prerequisite: Spanish 4

This course is conducted entirely in Spanish. Its goal is to advance proficiency in all skill areas through extensive practice in listening, speaking, reading, and writing. Material is presented in thematic units of study. Literature, film, and art figure prominently and mix throughout the year. Further study of advanced grammar topics is undertaken, and emphasis is on practical applications of grammatical structures. This course is intended for those students who have successfully completed Spanish 4; enrolling in this course requires teacher recommendations and department consent.

Honors Spanish 5 • 336 • Year Long

Prerequisite: Spanish 4 and department recommendation

Candidates for Spanish 5 Honors should demonstrate oral aptitude and be eager to communicate exclusively in the target language. Spanish 5 Honors is designed for advanced students who wish to hone their skills. The goal is to advance proficiency through extensive practice in listening, reading, writing, and speaking by utilizing authentic materials and sources ranging from literary selections to newspapers, magazines articles, online publications, podcasts, and Internet videos. The study of literature and contemporary culture is emphasized. Course work continues the review of grammatical concepts of the Spanish language and appropriateness of variant usages. Students registering for Spanish 5 Honors can expect to receive assignments during the summer.

Math

Math 1: Integrated Algebra & Geometry I • 410

Math 1 incorporates the work traditionally associated with Algebra 1 with a variety of geometric and finite applications. The topics from algebra include operations on real numbers; linear functions, graphs and equations; and systems of linear equations and linear inequalities. Geometric applications taught include properties of polygons and areas of polygons; triangle similarity; ratio and proportion; right triangle properties; areas and volumes of solids. Applications to problem-solving are stressed throughout the course. The Ti-84 graphing calculator and computers are used when appropriate.

Math 2: Integrated Algebra & Geometry II • 420

Math 2 allows for greater continuity of learning and understanding algebra. The geometry incorporated in the course explores the basic geometric relationships using compass and straight edge as well as computer simulations. Topics from geometry include angle relationships, congruence of triangles, and circle properties. The algebra of Math 1 is reviewed and expanded upon. Areas of study include linear functions, equations and systems of equations, and quadratic functions, and exponential rules. Applications to real problems are presented in both algebraic and geometric contexts. The Ti-84 graphing calculator and computers are used when appropriate.

Honors Math 2: Honors Integrated Algebra & Geometry II • 421

Prerequisite: Returning students should consult “Honors Criteria” above; new students require the department’s approval

This course covers the same topics as the Math 2 course but it covers the topics in more depth. Math 2 Honors will also cover additional topics such as triangle trigonometry, literal equations, and direct and indirect variation. Honors math classes move at a significantly faster pace than regularly sectioned classes in order to include the necessary curriculum.

Math 3: Functions and Applications • 431

Prerequisite: Math 2

Math 3 is devoted to the study of functions. Applications to real problems and real data are stressed throughout the year. The topics studied include functions and translations of graphs; quadratic functions; higher order polynomials and maxima and minima of functions; rational functions; exponential and logarithmic functions; and trigonometric functions. Math 3 is the most technology-intensive of the required courses. Each unit of study includes analysis of real data. The Ti-84 graphing calculator and Excel spreadsheets are the primary tools used for analysis and solutions of real-world models and labs.

Honors Math 3: Honors Functions and Applications • 431

Prerequisite: Returning students should consult “Honors Criteria” above; new students require the department’s approval

This course does not follow the same syllabus as the Math 3 course. It is a functions-based course that will cover quadratic, polynomial, exponential, rational, logarithmic, and trigonometric functions in depth. While the course does work with applications, the focus is on theory and proof of function properties. Students enrolled in this course will also study trigonometric identities and solving complex trigonometric equations. Honors math classes move at a significantly faster pace than the regularly sectioned classes in order to include the necessary curriculum.

Math 4: PreCalculus and Finite Mathematics • 440

Prerequisite: Math 3

The topics studied in this course have broad applications in the social and biological sciences, business and management and computer science. Consequently, the unifying theme for the course is mathematical modeling in problem-solving. Topics studied include problem solving strategies; sequences and series, through the infinite; Financial math; Gnomons and Fractals; set theory and counting and probability; graph theory; through a variety of applications. Use of the graphing calculator is an essential part of the mathematical modeling used in this course. Students who complete this course will be eligible for the Statistics course the following year.

Math 4: PreCalculus • 441

Prerequisite: Math 3 and department recommendation

This course covers more advanced pre-calculus topics in the Fall such as Law of Sines and Cosines, trigonometric identities, vectors and the conic sections. The winter term covers the finite topics of set theory, combinatorics, probability, and expected value. The spring term covers sequences and series, through the infinite; Financial math and limits. Students who successfully complete this course with a year-long grade of B or higher may enroll in Math 5: Calculus the following year.

Honors Math 4: Honors PreCalculus • 442

Prerequisite: Returning students should consult “Honors Criteria” above; new students require the department’s approval

This course covers in depth the more advanced pre-calculus topics such as polar coordinates, parametric equations, complex numbers, conic sections, and vectors. The winter term covers the finite topics of logic, set theory, combinatorics, and probability. The spring term covers statistics, sequences and series to the infinite, and mathematical induction. Honors math classes move at a significantly faster pace than the regularly sectioned classes. This class is required of students considering AP Calculus the following year.

Statistics • Year Long • 470

Prerequisites: Math 4 or Math 4 Honors and the department’s recommendation.

Statistics is an activity-based course that introduces students to the fundamental concepts and techniques employed when working with data. The course exposes students to four broad conceptual themes: exploring data, collecting data, probability, and testing hypotheses using statistical inference. The TI-84 graphing calculator will be an important tool for modeling and analyzing data sets. The department’s recommendation is required for students to be eligible for this course.

Math 5: Calculus • 450

Prerequisite: Math 4 with a year-long grade of B or higher

This is a year long beginning calculus course. The course will begin with an intensive review of the major function families as well as equation solution techniques. The course presents the introductory topics of differential calculus, including limits and derivatives of functions. Related rates, max/min problems and other applications, and proofs of major theorems are included. The topics of integral calculus, including indefinite integration, the fundamental theorem of calculus and application problems are studied during the second half of the year.

AP Calculus • 460

Prerequisite: Honors Math 4

This is a standard year long course, which presents the introductory topics of differential and integral calculus. It follows the syllabus prescribed by the Advanced Placement Board. Students enrolled in this course are required to take the Advanced Placement exam in the spring.

AP Computer Science • Year Long • 475

This is an upper-level course designed primarily for juniors and seniors. The course is rigorous with a significant amount of work. Each week, students are expected to complete a programming assignment in addition to their daily homework. It is a year-long sequence of term courses. The course will be taught as a mastery course. This means that students will be able to work at their own pace and take tests and hand in programming assignments to assess whether they can move to the next level.

Computer Science 1: Programming • Year Long • 471

This is an introductory course in computer science and computer programming using the language of Java. After students are introduced to the fundamental concepts of object-oriented programming, they go on to study how to produce well written algorithms.

Computer Science 2: Advanced Programming • Year Long • 472

Prerequisite: Computer Science 1

This course is the next step after the fall term elective. It focuses on data structures, algorithms, and more advanced concepts of object-oriented programming

Computer Science 3: Advanced Object-Oriented Programming • Year Long • 473

Prerequisite: Computer Science 1 and 2

This course is the next step after the winter term elective. It focuses on using more advanced data structures and algorithms. It also emphasizes some of the more advanced concepts of object-oriented programming.

Ninth Grade Program (NGP)

Ninth Grade Arts Program • 100 • Year Long

In conjunction with the English, history, and science programs, students receive a foundation in the skills associated with creativity and artistic expression. Students develop their ability to respect the creative space of the classroom; to experience the creative process of making art; to take risks with their thoughts, feelings, and ideas; to develop artistic voice; to understand and appreciate the uniqueness of their own work and respect the work of others; to explore playfully and spontaneously through different mediums; and to observe closely works of art and to be able to respond critically and articulately. Students leave the program prepared for meaningful and disciplined study in any of the arts—dance, music, theatre, and visual arts.

Ninth Grade English Program • 201 • Year Long

In conjunction with the arts, history and science programs, the English program in the NGP focuses on developing students' understanding of themselves as readers and writers by asking them to read literature in four genres—short story, play, poem, and novel—and to create interpretations which pay close attention to the text, not only using evidence to support the student's reasoning in inferences and conclusions, but also using fundamental literary terms and devices. Students express their ideas by speaking and listening in seminars and presentations as well as by writing in analytical essays, personal essays, poetry and stories. A preliminary study of formal matters in writing, such as vocabulary, grammar, usage, mechanics and style, is included in all NGP classes.

Ninth Grade History Program • 603 • Year Long

In conjunction with the English, science and arts programs, the history program emphasizes fundamental history and social science skills: using the library, researching and gathering evidence and using evidence to support inferences and conclusions. Using both primary and secondary documents, there is an emphasis on reading to identify and comprehend main and subordinate ideas and to summarize the ideas in one's own words. Writing skills include the formulation of a thesis; the ability to organize, select, and relate ideas and to outline and develop them in coherent paragraphs; and the ability to take meaningful and accurate notes from class discussions and reading assignments. Reasoning skills include the ability to analyze and synthesize and the ability to draw reasonable conclusions from information found in various sources. Special emphasis is given to helping students navigate various types of information and distinguish what comprises a valid and appropriate resource.

Ninth Grade Science Program • 500 • Year Long

In conjunction with the English, history and arts programs, students improve their skills in reading, writing and reasoning in science. Consequently, the process of science, inquiry, laboratory skills, collection and treatment of data, and the creative solutions to problems are integral to the program. Students learn to identify problems and formulate hypotheses and to propose and evaluate ways to test them. They develop their observation skills and learn how to use appropriate methods and tools for gathering information. They also learn to organize and interpret data in order to make generalizations and predictions, and to design and carry out experiments. Students emerge from the program with a foundation of skills and knowledge for continued study in the physical, chemical, and biological sciences.

Science

Ninth Grade Program Science • 500 • Year Long

In conjunction with the English, history, and arts programs, students will improve their skills in reading, writing and reasoning in science. Consequently, the process of science inquiry, laboratory skills, collection and treatment of data, and the creative solutions to problems are integral to the program. Students will learn to identify problems and formulate hypotheses and to propose and evaluate ways to test them. They will develop their skills of observation and learn how to use appropriate methods and tools for gathering information. They will also learn to organize and interpret data in order to make generalizations and predictions, and to design and carry out experiments. Students will emerge from the program with a foundation of skills and knowledge in conceptual physics.

Chemistry • 503 • Year Long

In this first-year chemistry course, students examine atomic structure and the organization of the periodic table of elements, formulas of compounds, types of reactions and their equations, and chemical behaviors of substances within various systems. Basic principles of chemistry will be explored through topics within the fields of environmental chemistry, nuclear chemistry, organic chemistry, and biochemistry. Students continue to build on their analytical and problem-solving skills while working on concepts with observable phenomena in the laboratory.

Honors Chemistry • 504 • Year Long

Prerequisite: Department recommendation

This first-year chemistry course is offered for students with previous records of high achievement in science and math who are likely to pursue advanced work in the sciences. The topics covered in this class will be similar to those covered in Chemistry, but in greater detail and depth. The pace of this course will be accelerated and asks students to construct their own understandings of chemical concepts. Laboratory experiences will be a major part of this course as students develop strong problem-solving skills. The department's recommendation is required for eligibility.

Biology • 501 • Year Long

Prerequisite: Chemistry or departmental permission

Biology is designed to help students understand the human body and the living world. Students will explore the diversity of life, cell theory, evolution, genetics, ecology and human biology. A background in chemistry will provide the foundation for a

greater understanding of all areas of biology, including genetics, cell structure and function, physiology, and ecology. The lab experience will be a critical component of this course. Labs are designed not only to reinforce lecture material with hands-on activities, but also to challenge students to think and act like scientists. Making careful observations and recording data are stressed. In addition to performing demonstration labs, each student will be required to design and carry out original experiments and write formal lab reports.

Honors Biology • 502 • Year Long

Prerequisite: Chemistry and department recommendation

This course is offered as the biology component in the honors science sequence. It is open to those students who have completed an honors chemistry course or its equivalent and have a departmental recommendation. The honors chemistry prerequisite enables the course to take a more biochemical and molecular approach to the science of biology. The topics covered in this class will be similar to those covered in Biology, but in greater detail and depth. Writing and thinking skills are a significant part of the student's evaluation. Much of the laboratory work involves open-ended experiences followed by formal lab reports.

Physics • 506 • Year Long

Prerequisite: Chemistry and Biology, Co-requisite: Math 3

This course is offered to those students who are looking for exposure to the basic laws of physics. The laws of physics will be explored in the laboratory and discussed in the classroom. In addition, computer labs and simulations will be used throughout the course. Students will set up and solve problems using algebra and basic trigonometry. Subject areas to be covered include kinematics, force, work, energy, electricity, waves and sound.

Honors Physics • 507 • Year Long

Prerequisite: Chemistry, Biology, Math 3, and department recommendation

This physics course is offered to those students who are looking for a foundation in physics, which may lead to more advanced college work in science, engineering, or technology. The laws of physics will be introduced in the laboratory and through the use of computer technology. The topics covered in this class will be similar to those covered in Physics, but in greater detail and depth with an advanced use of mathematical problem-solving. The department's recommendation is required for eligibility.

Environmental Science • 509 • Year Long

Prerequisites: Chemistry and Biology

This yearlong course will take a project-based approach to environmental science. Students will spend considerable time in the lab and in the field, collecting and analyzing data to better understand environmental problems. They will be expected to use scientific methodology to evaluate multiple solutions to those environmental problems. Topics investigated will include ecology, geology, climate change, pollution, and other current issues. Students should expect frequent reading assignments and to participate actively in discussions of current topics in the field of environmental science.

Honors Environmental Science • 510 • Year Long

Prerequisites: Chemistry, Biology, and department recommendation

Students in this college-level, interdisciplinary science course will use scientific principles, content and methodologies to study

the interrelationships of the natural world and learn to identify and analyze environmental problems. Critical-thinking skills will be applied to evaluate risks associated with these problems and to examine alternative solutions for resolution and prevention of such problems. The department's recommendation is required for eligibility.

Anatomy and Physiology • 515 • Year Long

Prerequisite: Chemistry and Biology

This course focuses on the anatomy and physiology of the human body from the microscopic up to the macroscopic level. Through laboratory exercises centered on human organ structure and function, dissections of fresh and preserved organisms including the cat, and projects and case studies of human physiology, students will learn how the human body is assembled and operates. Students will design their own experiments and research diseases, treatments, current breakthroughs and controversies based on the organ systems they study. This will be a rigorous course designed for motivated, independent learners who are interested in pursuing college majors in the health sciences including medicine, nursing, physical therapy, and athletic training.

Marine Science • Year Long

Prerequisite: Chemistry and Biology

Marine Science is a year-long course that consists of Oceanography in the Fall Term, Marine Biology in the Winter Term, and Projects in Marine Science in the Spring Term. Students enrolled in the Marine Science Year long course must take all three terms for a full year credit. Students wishing to take only one or two of the terms should enroll in those individual term courses. Please Note: Projects in Marine Science can only be taken if a student has completed Oceanography or Marine Biology.

Oceanography • Fall Term

Prerequisite: Chemistry and Biology

Oceanography is the study of the physical nature and movement of the ocean. From waves and currents to tides and tsunamis, this course will introduce students to how our ocean has significant and lasting impacts on our shores, our weather and our livelihoods. Through lab exercises and class discussions, students will gain insights into ocean basin geophysics, circulation, marine chemistry and patterns of productivity in the world's oceans. This rigorous course will expose students to current research and new directions in marine science and how the oceans play an important role in climate change.

Marine Biology • Winter Term

Prerequisite: Chemistry and Biology

All life on the Earth relies on life in the ocean. Creatures ranging in size from microscopic plankton to humpback whales and giant squid will be explored in this course focusing on life in the sea. Students will gain insight into the diversity, ecology, adaptations of marine organisms, and the habitats of the oceans. The course will be taught through laboratory experiments and live observations, activities, projects, discussions, and field work.

Projects in Marine Science • Spring Term

Prerequisite: Either Oceanography or Marine Biology

As a follow-up to concepts explored in Oceanography and Marine Biology this term-long course will allow students to investigate a major topic of their choice. Students will research many of the current issues in the marine sciences such as climate change, fisheries sustainability, and ocean acidification, and choose a specific area for further exploration. Projects will culminate in various forms such as interviews with scientists, field visits, peer-reviewed research articles, and advocacy campaigns through a variety of media. As a required aspect of this course, students will present their work to the community.

Ecology, Evolution, and Animal Behavior • Year Long

Prerequisites: Chemistry and Biology

Ecology, Evolution, and Animal Behavior is a year-long course that consists of Ecology in the Fall Term, Evolution in the Winter Term, and Animal Behavior in the Spring Term. Students enrolled in the Ecology, Evolution, and Animal Behavior YEARLONG course must take all three terms to receive full year credit. Students wishing to take only one or two of the terms should enroll in those individual term courses.

Evolution • Fall Term

Prerequisite: Chemistry and Biology

This course stresses the relevance of evolution to all of biology and to real world problems. The discussion of evolution as a collection of facts, and as an ongoing research effort with the goal of understanding it as an observable process, especially as it relates to modern medicine and the treatment of disease will be the focus of the course. Emphasis is placed on the theoretical underpinnings of modern evolutionary biology (mutation, selection, migration, & drift) that produce evolutionary change. Additionally, students are introduced to a variety of analytical and technical skills used for studying evolution. Topics covered include population genetics, the theory of evolution by natural selection, concepts of fitness and adaptation, genetic and developmental bases of evolutionary change, modes of speciation, molecular evolution, and macro-evolutionary trends in evolution, the origins of life, and extinction, among others. Exposure to the tremendous diversity within this discipline will illustrate why evolution is viewed as the central theme unifying all of biology.

Ecology • Winter Term

Prerequisite: Chemistry and Biology

Ecology is the study of the interactions between organisms and their environment. The course will serve as an introduction to ecological concepts and their applications both abiotic and biological. In addition to discussing ecological concepts, the class will look at an overview of local and global environmental issues, and examine individual, group and governmental activities important for protecting natural ecosystems. Students will focus on the comparison of different ecological communities and ecosystems and learn methods of sampling and analysis. The laboratory will consist of field excursions and exercises related to the field experience and ecological techniques.

Animal Behavior • Spring Term

Prerequisite: Chemistry and Biology

This term long course is an introduction to the field of animal behavior. Basic principles derived from evolution, ecology and development will be discussed and these principles will be used to explain how and why animals behave as they do in particular situations. The course will focus on many important biological activities such as foraging, communication, migration, predator-prey interactions, mating, and parental care. These concepts will be presented through various discussions, laboratory activities as well as possible field trips.

Natural Disasters and Catastrophes Fall Term

Prerequisite: Chemistry

This course will be divided into three units, earthquakes, volcanism, and weather. Each unit will cover the geological and physical processes behind these natural disasters as well as our ability to predict and manage them. Students enrolled in this course will have the opportunity to gain an understanding of the mechanisms behind these disasters through the lens of geology, as well as an exposure to the tools available for detection and mitigation.

Geology Winter Term

Prerequisite: Chemistry

The goal of this term long course is to study and understand the basic composition and structure of the earth. Topics investigated will include rocks and minerals, plate tectonics, weathering and erosion, volcanoes, and earthquakes. By the end of the course students should be able to identify different geologic features and have an understanding of the processes that formed them. This course will be taught through lab-based exercises, hands on activities, and field work.

Ornithology Spring Term

Prerequisite: Chemistry and Biology

Students will learn what birds teach us about some of the most important ideas of modern biology especially in the areas of behavior, ecology, and evolution. They will study bird anatomy, evolution, and behavior. As the term progresses, the focus will move to the study of birds in the field. Students will learn to identify common birds in the field by sight and sound. Each student will become the class expert on a particular species. Students should be prepared to go into the field frequently.