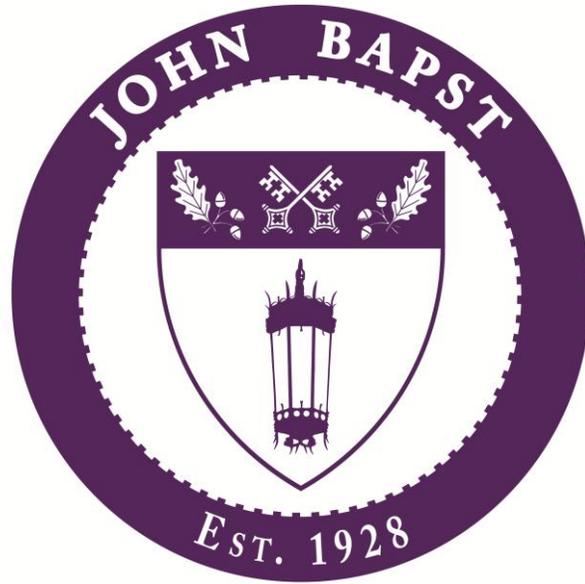


JOHN BAPST MEMORIAL HIGH SCHOOL



PROGRAM OF STUDY

This Program of Study describes all the courses taught at John Bapst Memorial High school. Not all courses are offered every year. To know which courses are offered in a given year, please consult the Course List for that year.

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English Department

Every course in John Bapst Memorial High School’s English Program of Study is both a reading and writing course, the goals of which are to prepare students for college level work and to nurture in them the lifelong habits of mind—engagement, openness, flexibility, curiosity, persistence, responsibility, critical thinking, metacognition, creativity—that will make them effective citizens and lifelong learners with an appreciation of reading and writing. In the course of their studies students expand their vocabulary through challenging texts, learn the historical and cultural contexts of their readings, and develop fluency with the idiom of literature and composition discussion. In their eleventh grade year, students may choose between English III: Literature and Composition or Advanced Placement English Literature and Composition, in the twelfth grade year between English IV: Literature, Language, and Composition or Advanced Placement English Language and Composition. The AP courses require a B average, a demonstrated commitment to classwork and class participation, and the recommendation of the student’s current English teacher; however, the English Department does not offer these choices as lesser or greater challenges.

English Literature in all its great national traditions and in all its great forms—poetry, short fiction, plays, novels, speeches, and nonfiction (both practical and creative)—is at the heart of the reading, although syllabi often include classics in translation reaching back to the mythologies of ancient cultures and Sophocles’ great tragedies. Courses emphasize close reading and analytical-interpretive writing in the persuasive mode; however, teachers encourage the appropriate use of the personal voice, and in every course students write personal essays. To develop their versatility as writers, students compose in the four modes of discourse (description, narration, exposition, and persuasion) and implement a variety of the modes of development (definition, analysis, division and classification, comparison and contrast, cause and effect, process analysis, analysis, argument, and synthesis). Just as students are asked to discern meaning, purpose, and effect in their reading, they are asked to create meaning, purpose, and effect in their writing. Although the larger elements of composition (development, organization, investment, unity, coherence, clarity, and quotation and research integration) figure prominently in writing instruction and evaluation, the mastery of conventions (sentence structure, usage, grammar, mechanics, documentation, and format) is continuously reinforced.

In the ninth grade year, students begin building writing portfolios that follow them through twelfth grade, and in each year students write reflectively about themselves as developing writers. Teachers use a variety of technology tools at the point of instruction and ask students to use that variety of tools themselves in their writing, reading, and oral presentations.

English I: Ninth Grade Literature Survey and Composition

Grade 9; 1 credit

Prerequisite: None

English I is the foundation of literature and composition studies at John Bapst Memorial High School. Because John Bapst's students come from many different schools, their experience with literature and writing varies significantly; therefore, a major goal of Ninth Grade Literature Survey and Composition is to bring all students to a common but substantially higher level of knowledge and skills that prepares them to meet the challenges of the succeeding years. Teachers strive to provide an environment that encourages students to participate and that challenges all students to deepen the levels at which they think and raise the levels at which they speak, read, and write.

The literature of the course is divided into major genre-based units, and through readings, discussions, and writing assignments, students are immersed in the concepts and vocabulary of analysis and interpretation that they will need in their English classes for the following three years. We place specific emphasis on developing their skills of literary analysis because these skills open all literature and because students must learn to interpret literature for themselves rather than look to their teachers for "official" interpretations. Indeed, students in their eleventh and twelfth grade years, whether they take college preparatory English or either of our Advanced Placement courses, must be able to analyze and interpret literature independently and authentically.

In order to develop their analytical skills and the confidence to use them independently, we teach students to be close readers—to develop habits of mind that encourage engagement with the text through consideration of narrative structure, syntax, diction, imagery, tone, and literary and rhetorical devices—as they craft persuasive, text-based, authentic interpretations of literature. Our emphasis on close reading ensures that students will be able to analyze thoughtfully the elements of a work on their way to understanding the complexities of the work as a whole.

In addition, as the foundation of John Bapst's Writing Program, English I emphasizes the primary aspects of composition: the writing process, organization, topic development, use of detail, sentence structure, grammar, usage, and mechanics. Students write in each of the four modes of discourse (description, narration, exposition, and persuasion), and they learn, using full in-text documentation, to integrate quotations from a single primary source into their essays.

Finally, English I introduces students to library skills—the use of standard reference books, the library catalog, and computer-based research—in cooperation with the librarian; moreover, throughout the year, English I cultivates student technology skills by asking students to implement those skills in their assignments.

English II: American Literature and Composition

Grade 10; 1 credit

Prerequisite: English I

English II is a survey course focused on the study of American Literature, a subject that spans nearly five centuries in the written tradition and vastly longer in the oral tradition of America's earliest inhabitants. Inherent to the study of a body of national literature is the study of the society from which the literature emerged; hence, English II is also concerned with the history and culture of the United States and serves, therefore, as a complementary course to American History One and Two.

In the composition component of English II, students study closely all the primary aspects of composition: the writing process, organization, topic development, use of detail, sentence structure, grammar, usage, and mechanics (including MLA format). The primary subjects of composition assignments, however, are American Literature and literary subjects. In the second semester of the course, students learn how to do literary research, and they begin to integrate secondary sources into their analytical essays while learning correct methods of quotation integration and documentation. In cooperation with the library, students learn literary research skills; they make full use of library materials, computer-based resources, databases, independent web sites, and inter-library loan. The substantial composition component of English Two directly reinforces and builds upon the word processing skills students acquire in their required ninth grade Technology course.

Throughout the tenth grade year, students give considerable attention to vocabulary expansion, and they improve oral communication skills through class discussion and oral presentations. Finally, students work in conjunction with the Guidance Office and their English II teachers to prepare for the Preliminary Scholastic Aptitude Test (PSAT).

English III: British and Irish Literature and Composition

Grade 11; 1 credit

Prerequisite: English II

English Three is a survey of the literature of Great Britain and Ireland from Anglo-Saxon times to the present—a span of 1200 years. Inherent to the study of such an extensive body of literature over so long a time is the study of the language, history, and culture from which that literature emerged; hence, linguistic, historical, and cultural topics are studied as they inform the literature of the various periods.

The composition component of English Three takes as its primary subject the literature and its cultural context, with the general aim of training the student further in all aspects of academic writing and of building on the skills taught in English I and English II. Eleventh grade English students are expected to research broadly in primary and secondary sources and to make extensive, sophisticated use of research in their two major (3000 to 4000 word) research-informed essays. Students will also experience comprehensive correction of their essays and will be encouraged to revise them for additional credit.

Students practice, expand, and refine their literary research skills as they make more extensive, independent use of the John Bapst Memorial High School Library and as they make use of other local libraries, including the University of Maine's Fogler Library.

Throughout the English Three year, students give considerable attention to vocabulary expansion and the improvement of oral communication skills through class discussions and oral presentations. Finally, students work in conjunction with the Guidance Office and their English Three teachers to prepare for and to analyze the results of the PSAT in preparation for the SAT.

English IV: World Literature and Composition

Grade 12; 1 credit

Prerequisite: English III

English IV is a study of World Literature from classical times to the present in which students grapple with the universal themes of human experience—for example, finding and creating meaning and identity, understanding in both personal and universal terms the concept and complexities of love, contending with the ostensible finality of death, determining worth and value, distinguishing appearance from essence and vanity from aspiration, pursuing dreams and goals, and struggling with absurdity and the possibility of meaninglessness. Although teachers enjoy considerable liberty in choosing literature, all students read and study in all the major forms: poetry, drama, short fiction, long fiction, and non-fiction. Viewing and analyzing film as literature is also part of class work. Teachers approach the course in a variety of ways—by theme, by nation, by genre, by world literary movements—but in all cases, as the final course in John Bapst Memorial High School's English Program, World Literature and Composition is designed to bring to fulfillment the work of the previous years by demanding of students their best work as readers and writers and as classroom participants and oral presenters.

The composition component of the course takes as its primary subject the literature and its cultural context. Students deepen and sharpen their critical abilities through close analysis of individual literary elements (point of view, tone, style, theme, character, symbol, and irony, for example), which they demonstrate regularly in their written work; they then bring these skills to their major papers, which are evaluated by the most exacting standards. Students are also expected to show considerable independence in choosing literature for their major essays, in choosing subjects to write about, and in researching and documenting primary and secondary sources.

The primary resource for vocabulary expansion continues to be the literature; however, primary responsibility for vocabulary expansion falls to the student. For the purpose of improving communication skills, class participation is strongly encouraged and oral presentations are required. Students work extensively with the librarians to enhance research skills and with the Technology Department in the production of their papers. Finally, students work closely with their teachers and the Guidance Department to facilitate the writing of college application essays and resumes.

AP English III: Literature and Composition

Grade II; 1 credit

Prerequisites: English II, a 90% average or above in English II, and teacher recommendation

English III: AP Literature and Composition is a challenging course for students ready for college-level engagement with serious literature. All students taking the class are required to take the exam.

Students who do well on the exam may receive advanced placement in college or college credits, depending on the college or university they attend. Students taking this class have a sincere interest in literature, are highly self-motivated, and are prepared to participate actively in the most challenging English course we offer to juniors.

Like English III, English III: AP Literature and Composition has its roots in the literature of Great Britain and its colonial descendants, spanning Anglo-Saxon times to the present. But the AP Literature course, versions of which are taken by some half a million students around the world each year, is focused not on British literature but on great literature. Hence readings in the course are eclectic and may include American literature and literature in translation. Inherent to the study of AP Literature is the close examination of how language and literature work; thus, close reading, critical thinking, classroom discussion, and analytical writing form the backbone of the course. Teachers choose works with an eye to depth, complexity, and intellectual challenge—and to preparation for the AP Literature and Composition Exam in May.

English III: AP Literature and Composition devotes significant class time to the discussion and analysis of literature. Students are expected to be active listeners as well as active participants. As in all courses in the department, students also have the opportunity to learn effective speaking skills through a variety of oral presentations. These performances may require memorization; they are designed to enhance awareness of language, appreciation for organization, active listening, and poise.

The composition component of English III: AP Literature and Composition takes thinking as its primary subject. Literature arises from a personal and cultural context, but in its universality invites readers to a conversation about life's deepest questions. With the aims of training the student further in all aspects of academic writing and building on the skills taught in English I and II, AP Literature and Composition teachers design writing assignments that specifically emphasize the skill set needed to perform well in college and on the AP exam.

In English III: AP Literature and Composition, students will continue to write primary source essays, and they will continue cultivating research skills established in English I and English II, making appropriate use of a variety of primary and secondary sources in projects that may require guided or independent research in the service of research-informed essays. In their research-oriented work, students will learn to find, assess, document, and employ both print and electronic media (especially through internet databases like MARVEL, which all students can access both at school and at home). Teachers may guide students to appropriate scholarship, or they may assign independent research; in addition, students may be asked to find print media beyond the offerings of the John Bapst library in places like UMaine's Fogler Library.

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English III: AP Literature and Composition provides specific preparation for the PSAT and the SAT through components in vocabulary building, grammar, timed-writing, and PSAT and SAT practice tests. Additionally, teachers do regular AP exam preparation in the forms of practice tests and timed writings to prepare students for the rigor of the AP testing situation. Finally, teachers work in concert with the Counseling Office to both prepare students for these exams and to reinforce the importance of these exams in the college preparation and application process.

AP English IV: Language and Composition

Grade 12; 1 credit

Prerequisites: English III, 90% Average in English & Teacher Recommendation

Advanced Placement Language and Composition serves those students who intend to pursue advanced placement in college by taking the Advanced Placement Language and Composition Exam. The reading component of the course focuses on the rhetorical principles, strategies, and techniques at work in literature (nonfiction primarily), with the aim of giving students an understanding of the rhetorical and linguistic choices of authors. The writing component seeks to give students extensive practice in the “expository, analytical, argumentative [synthetic, and research-informed] writing that forms the basis of academic and professional writing as well as the personal and reflective writing that fosters the development of writing facility in any context” (The College Board). In preparation for the Advanced Placement Language and Composition Exam, students work extensively with Advanced Placement materials: AP publications, the content of recent AP Exams, and information collected from AP conferences attended by their teachers. Through practice exams, including multiple-choice questions and timed writings, students gain the practical experience needed for the actual Advanced Placement Language and Composition Exam—a rigorous three hour exam through which students may gain advanced placement in college courses and, often, earn college credits.

Students in AP Language and Composition must have a substantial capacity to work independently, for both the reading and writing requirements are intensive. Daily work requires close reading and critical-rhetorical analysis of both nonfiction and imaginative literature from every genre. Students develop awareness of rhetorical strategies and fluency in the idiom of rhetorical and literary analysis. They also gain insight into the complex ways in which language makes meaning, by which arguments are developed, and by which imaginative literature builds upon the ideas and traditions of the past. Disciplined work in AP Language and Composition also aids those students who wish to take the Advanced Placement Literature and Composition Exam but who did not take AP Literature and Composition in eleventh grade. Finally, students pursue writing not only as a means to demonstrate understanding of language and literature but also as a creative, knowledge-engendering mode of thought in itself.

In order to be admitted to AP Language and Composition, students must have a sincere interest in language and literary studies. They must be not only highly self-motivated but also willing to participate in the most challenging classroom environment (class participation figures prominently in their grades) and to meet the most exacting standards in their reading and writing assignments. They

also must have maintained a 90% or better average in their eleventh-grade English course and have the recommendation of their instructor. Students who do not meet the grade average requirement may apply for admission to AP Language and Composition, a process that requires a review of their writing portfolio as well as the recommendation of their English Three instructor. Applications are available from the English Department Chair.

Creative Writing

Grade 10, 11, 12; 1 credit

Prerequisite: English I, and permission of the department for Grade 10

Creative Writing is a year-long elective course that gives students the opportunity for significant creative expression through the writing of poetry and prose (both fiction and nonfiction).

Appropriately, it may be used to satisfy the fine arts graduation requirement. Class periods include direct instruction, individual student-teacher conferencing and coaching, and the sharing and critiquing of works with classmates, all of which support the goal of establishing a trusting, dedicated, and productive community of creative writers. Overall, the course encourages students to be careful, reflective, and creative observers of the world—from the minute to the monumental—to experience life deeply, and to process their observations and experiences in writing as a way to communicate, as well as to discover and create, meaning. At the same time, the courses seek to increase students' sensitivity to, and therefore appreciation of, language as an artistic medium.

Students study poetry primarily through the “structure, sound, and sense” rubric of interpretation, analysis, and appreciation. In consideration of their study they are required to write poetry in free verse and closed forms that reflects sensitivity to the elements of the rubric. Most of their work in poetry, however, is in forms that suit their individual tastes, talents, inspirations, and ideas. The success of their work is judged by such criteria as clear subject, definable impact on the reader, unity and completeness, coherence and consistency, and precision and clarity. Bringing students to appreciate the importance of “showing and doing” rather than telling in their poetry is a primary goal; therefore, students spend considerable time learning and practicing the careful use of detail and the dynamics of both imagery and figurative language.

Through the close study of various models, students review the elements of fiction and nonfiction with the aim of imitating and creating them in their own writing. In regard to fiction, special emphasis is given to indirect characterization and tight, unified construction; in regard to nonfiction, special emphasis is given to the personal essay and clarity of voice. However, students are encouraged to work on individual projects of their own design. Overall, students are expected to write about twenty pages of graded prose.

Students maintain journals in which they generate material for their actual assignments, and they maintain portfolios of their assigned formal writing in both digital form and as hard copy in file folders. In their file folder portfolios, students keep chronologically every version, every writing and rewriting, of all their works as a way to monitor their own creative writing processes. Much of the students' work eventually is published in John Bapst Memorial High School's literary magazine *Passages*.

Speech

Grade 10, 11, 12; 1 credit

Prerequisites: English I, and permission of the department for Grade 10

Speech is a year-long, elective course that offers students the opportunity to develop the necessary speaking and listening skills to grapple confidently and effectively with the difficulties of interpersonal, group, and public communication. The course seeks to improve student awareness of the processes and mechanisms of speech so that they are able to control them to achieve their goals. It is a performance-based course with two primary components—Speech Communication and Oral Interpretation.

Appropriately, Speech satisfies the Fine Arts graduation requirement. In the Speech Communication component, students prepare for delivering formal speeches by focusing first on both the complexities of communication itself and the great variety of communication situations, interpersonal and group, they may face where an individual does not stand before an audience. Students then proceed to public speaking. Students study the history and theory of speech, including great speeches of history, and then proceed to write and deliver a series of speeches of their own of varying length, formality, and purpose. As their skills increase, the challenge of their assignments, as well as the standards of performance to which they are held, increase. Usually, students give a minimum of six formal, substantial speeches, primarily informational and persuasive, but also, as time allows and circumstances inspire, autobiographical, introductory or welcome, demonstration, entertainment, commemorative or dedicative, commencement or farewell, and tribute speeches. Students also role play and give impromptu speeches as a means to overcome self-consciousness, to improve confidence, and to practice for real world situations.

The Oral Interpretation component actually begins with the recreation of great speeches of the past in order to understand and experience oral interpretation as a method of breathing life into literature, which is their goal in their subsequent oral presentations of poetry and prose.

Fine Arts Department

The Fine Arts Department of John Bapst Memorial High School provides a quality fine arts curriculum for every student. We immerse our students in a variety of opportunities to study, appreciate and explore artistic endeavors, while also developing their curiosity, critical and creative thinking skills. The curriculum prepares our students for careers and further study in the arts and gives them an avenue for self expression. Our overall goal is to promote a positive learning environment for our students as they seek to develop a life-long love of the arts.

The Fine Arts Department realizes these goals through sequentially structured lessons and demonstrations that build students' knowledge and competence. Lesson criteria as well as performance are used for evaluation and self-assessment. We challenge, nurture and support our students throughout their learning. The Fine Arts department teaches with consideration of each individual's learning style, while also contributing to students' personal development as ethical leaders and responsible citizens in a global community.

Drawing

Grade 10, 11, 12; ½ credit

Prerequisite: none

Drawing is a semester course offered to budding artists as well as the person who thinks he/she “can’t draw”. The emphasis of this course is to enhance the right-brain’s function by experiencing right-brain activities and learning a new method of “seeing” while utilizing proportion, contour lines, angles, shading, and observed or imagined perspective and the Elements of Art. Students primarily work in black and white media, including pencil, charcoal and ink. Students produce their own works of art, maintain an artist’s journal, and complete a portfolio. Relevant areas of art history are studied to enhance student projects. Students become familiar with the visual language of art and the practice of aesthetic valuing through critiques. Each student is required to participate in the school art shows. This course encourages students to experience life from the point of view of an artist.

Basic Design

Grade 9, 10, 11, 12; ½ credit

Prerequisite: Drawing

Basic Design is a semester course. It is the second prerequisite course after students have completed Drawing. This course encourages students to experience life from the point of view of an artist. Students will focus on Color Theory and how to utilize color media in their works, including but not limited to dry pastel, colored pencil, and watercolor. Students will also be introduced to sculptural processes in clay and will understand the firing process of earthenware in the kiln. In addition they will review the eight Elements of Art and be introduced to the Principles of Design (balance, proportion, movement, contrast, pattern, rhythm and repetition, emphasis, variety, harmony and unity) and how artwork is organized. Students produce their own works of art, maintain an artist’s journal, and complete a portfolio. Relevant areas of art history are studied to enhance student projects. Students become familiar with the visual language of art and the practice of aesthetic valuing through critiques. Each student is required to participate in the school art shows.

Beginning Drama

Grade 9, 10, 11, 12; 1 credit

Prerequisite: None

Beginning Drama provides opportunities for students to explore acting skills and techniques. This is a class for the budding actor as well as the person who is searching for skills to enable them with enough confidence to speak in front of large groups. Students will be exposed to four major acting venues (Pantomime, Monologues, Improvisation and short Skits) while becoming more aware of how messages are relayed through body movement, facial expression, and vocal delivery. All are meant to teach the student to convey a message and emotion for the audience’s reaction, whether in the boardroom or on the stage. Students will also be exposed to at least one professional theatre experience, and will be encouraged to attend more than one we offer as part of the class.

Digital Photography and Design

Grade 9, 10, 11, 12; ½ credit

Prerequisites: Drawing

Digital Photography is a semester long course in which students learn how to successfully operate a digital SLR camera in a variety of situations. Students will learn how to adjust camera settings and light sources to produce correct exposures. This course will also teach students how to apply the elements and principles of design to their photographic compositions. Students will also work with professional software to digitally edit and manipulate their images. It is recommended that a student use his or her own digital SLR for this course.

Film History and Criticism

Grade 11, 12; ½ credit

Prerequisite: Demonstrated writing ability

Film history and criticism is a semester course open to students in their junior or senior year. The course will cover the history of film, from magic lanterns in the 17th century to current digital and 3-D developments. The course will examine technical, artistic and cultural aspects of the media. Several films will be watched and analyzed throughout the course. Students breakdown the multiple facets that contribute to our understanding of a film, including: text (script), execution (filming), setting, music and acting. Students will also look at film criticism to help them form their understanding of the medium.

Painting

Grade 10, 11, 12; ½ credit

Prerequisites: Drawing and Basic Design

Painting is a semester course in which the student will explore the various acrylic painting techniques. We will focus primarily on works from life; however the course will not be confined to realism exclusively. Students will study the techniques and styles of important painting periods such as Impressionism, Futurism, Color Field Painting and other 20th century styles. The students will experience techniques used by famous artists such as Vermeer, Michelangelo, van Gogh, Gauguin, Mondrian, and many more. Students will be required to maintain a portfolio in addition to participating in the school art show.

Printmaking

Grade 10, 11, 12; ½ credit

Prerequisites: Drawing and Basic Design

Printmaking is a semester course in which students will learn multiple printmaking techniques including: monoprint, woodcut, linocut, collagraphy, etching and silkscreen. Students will also be instructed in the proper use of a printing press, history of printmaking and the role of printmaking in today's art world.

Sculpture and Ceramics

Grade 10, 11, 12; ½ credit

Prerequisites: Drawing and Basic Design

Sculpture is a semester course considering the 3rd dimension of form. Students will be exposed to classical and contemporary sculptors as they create works of art, problem solving the mysteries of that 3rd dimension. Students work will thoughtfully consider the use of the Principles of Design as well as the techniques and principles behind appropriate media (such as clay, plaster, or soapstone). Students will be required to display their work in the semester art show and complete a portfolio of work they might want to submit when applying to colleges.

AP Art History

Grade 10, 11, 12; 1 Credit

Prerequisite: Demonstrated writing ability

AP Art History is a full year course designed to prepare students for the AP exam administered in May. The course will cover the history of art from the earliest work of prehistory through to contemporary artists and movements. All media (painting, sculpture, architecture, etc.) will be included in this course. Students will become familiar with the work of individual artists as well as the work associated with artistic movements and time periods. Class meetings will include lectures, class discussion and field trips when possible. Occasionally AP practice questions and tests will be given to help students prepare for the exam.

AP Studio Art

Grade 11 & 12; 1 credit

Prerequisites: Drawing, Basic Design, Advanced Art & permission of the department

AP Studio Art is a College Board approved studio class. Students should have a well developed portfolio of work before starting this journey. Students have the opportunity to choose their portfolio of study: a DRAWING portfolio (where a student will show their master in drawing, painting, and mark-making skills) or a DESIGN portfolio (where the student will show their mastery in the use of the Principles of Design, computer and photography work). Once the portfolio has been chosen, students will create a body of 24+ works throughout the year. Twelve works will show their Breadth of mastery, through a variety of media and subject matter. Another twelve works in their Concentration section of the portfolio will encompass a theme as well as a measured growth in artistic integrity. The Breadth and the Concentration sections will be submitted online to the College Board. The third section of the exam, the Quality section, will require students to send five of their actual works to the College Board to be assessed (these are returned late summer). Students will be expected to exhibit in and attend each semester's art show, while compiling work in their portfolio, which will be submitted to the College Board for review in May.

Advanced Art

Grade 10, 11, 12; 1 credit

Prerequisites: Drawing, and Basic Design

Advanced Art is a year long class for the Intermediate or Advanced Artist. It continues to explore the media and ideas presented in Drawing and Basic Design, only in more depth. Students will first concentrate on interpreting the real world first in a media, then will explore the possibilities the media will allow for them when creating a more contemporary/abstract/non-objective work. Most works will be rooted in the student's personal reaction to the world around them through music, art, socialism and politics. In preparation for future endeavors in art, students are to tap-into their creative side and explore visual media and idea relationships, as would the practicing artist. Students will be expected to exhibit in, and attend each semester art show, while compiling work in their portfolio.

Introduction to Band and Chamber

Grade 9, 10, 11, 12; ½ credit

Prerequisite: none

This course is designed both for students without prior musical training and for those who wish to review the fundamentals. Students learn to play a concert band or chamber ensemble instrument, how to read music, to include note recognition as a quick speed and to count with rhythmic language. Students are required to attend all band or chamber performances as part of their skills development and to increase the joy of playing in a musical ensemble. Anyone wishing to study keyboard or guitar must spend half the year studying a brass or woodwind instrument.

Concert Band

Grade 9, 10, 11, 12; ½ credit

Prerequisite: Experience playing a concert band instrument for at least one year

This course, involving a large instrumental ensemble, is designed for students with at least one year of experience playing a concert band instrument. This course continues to improve performance skills with the use of music theory and muscle memory repetition. Students will learn the language of rhythmically counting as well as increased speed of recognizing notes and fingerings. The wide variety of music enhances the ability to play stylistically, as well as promoting a life-long appreciation for music. Students are required to attend all band performances. Students wishing to study keyboard or guitar must spend half the year learning to play a brass or woodwind instrument.

Concert Band/Jazz

Grade 9, 10, 11, 12; ½ credit

Prerequisite: Audition

This course, involving a small instrumental Jazz Ensemble is offered in conjunction with Concert Band and is designed to challenge the student in the art of improvisation and the style of playing jazz music. Students must be enrolled in Concert Band in order to audition and to participate in Jazz Band. Students are required to attend all Concert Band and Jazz Band performances.

Chamber Ensemble

Grade 9,10,11,12; ¼ credit

Strings Prerequisite: At least one year of private lessons

Wind Players Prerequisite: Audition

Chamber Ensemble as a course is offered as an instrumental ensemble with 2 rehearsals per week on Monday and Thursday from 2 – 3 pm. Performances include October, November, December, and May. Conflicts with this rehearsal timing are addressed with the Independent Practice Protocol. The course involves repetition of basic skills, in tune playing and progressive techniques. Focusing on a classical style repertoire, musicians will also be challenged in the art of performing jazz, mariachi, vocal accompaniment, pop and a variety of global cultural music. Chamber Ensemble is also available to those who do not have time to schedule it during the day as an extra-curricular activity.

Chorale

Grade 9, 10, 11, 12; ½ credit

Prerequisite: none

This course, involving a large vocal ensemble, is designed to challenge students whose musical abilities are diverse and to channel their abilities into the art of song. Many different aspects of music are explored, such as listening skills, vocal warm-ups, note reading, vocal blending, musical interpretations, solfege (singer's alphabet), stage presence (posture) and performance skills. Students are required to attend all chorale performances.

Contemporary Music Workshop

Grades 9, 10, 11, 12; ½ credit

Prerequisite: Teacher recommendation

This course involves vocalists and instrumentalists, who will work together exploring contemporary music. They will develop fundamental skills in the art of performance. They will experience new music and material as a group, individually, and through sectional rehearsals.

Honors Chorale

Grade 9, 10, 11, 12; ½ credit

Prerequisite: Audition

This course, involving a small vocal ensemble, is offered in conjunction with Chorale and is designed to challenge students with strong vocal skills. Students must be enrolled in Chorale in order to audition and to participate in Concert Choir. Member of the Concert Choir are held to a higher performance standard than Chorale members because the pieces chose for Concert Choir are more difficult to perform than those chosen for Chorale. Rehearsals are held during Chorale in addition to one morning a week. Students are required to attend all Chorale and Concert Choir performances.

Music Theory

Grade 9, 10, 11, 12; ½ credit

Prerequisite: none

This course is designed to challenge students who wish to learn about the written and auditory structures of music. Students are required to write an original tune for their final project. Through this procedure the students will learn all the concepts which are described under the course objectives.

Physical Education and Wellness Department

The Physical Education and Wellness curriculum is intended to help students make choices which foster responsible healthy behaviors through critical thinking, discussions and communication opportunities. The challenge of the Physical Education and Wellness program is to empower students to sustain regular, lifelong physical activity vital to a healthy and fulfilling life.

Physical Education

Grade 9, 10, 11, 12; ½ credit

Prerequisite: None

Physical Education is offered in the 9th grade year. Physical Education provides students with knowledge and skills that can be used in lifelong activities and physical fitness throughout their lives. A positive sense of self is of great importance in young people, and the Physical Education Department strives to foster an atmosphere of positive attitudes and acceptance, no matter the level of an individual student's skills. Through lifetime activities our program focuses on improving student self-esteem, attaining better wellness, becoming less susceptible to stress and increasing the quality of life. The program is instill in students the basic human values of fair play, self-esteem, self-confidence and respect.

Lifelong Physical Activities

Grade 9, 10, 11, 12; ½ credit

Prerequisite: Physical Education

This course will allow students to take an active role in improving their physical health. This course is designed for students to work on their individual fitness while obtaining skills to promote lifelong learning. Students will be guided in designing and implementing their own fitness regimen by engaging in a variety of lifetime activities. Students will keep a portfolio of all their activities and will self-evaluate their progress toward personal goals.

Wellness

Grade 9, ½ credit

Prerequisite: None

The Wellness course is designed to address a number of developmentally appropriate topics that focus on coping skills and strategies to better equip students to meet the challenges they will face both in and out of school. Topics will include mental health, self-esteem, decision-making, refusal skills, stress management, suicide and violence prevention, nutrition, weight control and communication.

Mathematics Department

The courses offered by the Mathematics Department encourage students to become more confident, persistent problem solvers and creative thinkers. Students investigate topics using the “Fantastic Four”: solving mathematical problems I) graphically, II) algebraically, III) using tables and numbers, and IV) then explaining their reason verbally.

The Mathematics Department takes time to ensure that students are placed in appropriate classes. Entering Freshmen and International students take a placement exam to determine which class would be appropriate for their first year at JBMHS. That could be one of three levels of Algebra I, or Geometry, Honors Algebra II, or even Honors Precalculus. There are multiple levels of each course to cater to different learning needs, our master schedule allows students flexibility to move to a different level of a math class. The course of study typically culminates in one of several courses, FST (Functions, Statistics, and Trigonometry), Precalculus, Honors Calculus, or an AP Course. We offer AP Calculus AB, AP Calculus BC, and AP Statistics. We have added Multivariable Calculus for those students who are ready to move beyond AP Calculus.

At all levels at John Bapst, problem solving skills and technology skills each plays an important role. The appropriate use of technology is emphasized so that students may explore mathematical concepts more fully. Exams are often given with a calculator active as well as a non-calculator portion. The department expects students to acquire a solid mathematical background that will allow them to be successful in each successive math course and be prepared for college.

Algebra I

Grade 9; 1 credit

Prerequisite: none

Algebra I introduces the student to the use of symbolic notation and mathematical modeling in problem solving. The major topics covered include simplifying algebraic expressions, solving and graphing equations and inequalities, functions, and data analysis.

Honors Algebra I

Grade 9; 1 credit

Prerequisite: Admittance by placement test

Students in Honors Algebra I will be introduced to the use of symbolic notation and mathematical modeling in problem solving. The major topics covered include simplifying algebraic expressions, solving and graphing equations and inequalities, functions and data analysis.

Geometry

Grade 10, (grade 9 by examination); 1 credit

Prerequisite: Algebra I

Geometry introduces the student to the use of inductive and deductive reasoning. The major topics covered include parallel lines, congruent and similar polygons, circles, right triangles, areas and volumes of solids, and coordinate and transformational geometry.

Honors Geometry

Grade 9 or 10; 1 credit

Prerequisite; 90% or higher in Algebra I or placement exam.

Honors Geometry introduces the student to the use of inductive and deductive reasoning. The major topics covered include parallel lines, congruent and similar polygons, circles, right triangles, areas and volumes of solids, and coordinate and transformational geometry. Honors Geometry includes more rigorous proofs and constructions than the regular geometry course.

Algebra II

Grade 11; 1 credit

Prerequisites: Algebra I and Geometry

Algebra Two completes the structure of the real and complex number systems. The major topics covered include mathematical modeling in problem solving and graphing equations and inequalities, a comprehensive study of algebraic functions, and an introduction to logarithmic functions, exponential functions, and discrete math and data analysis.

Honors Algebra II

Grade 10, 11; 1 credit

Prerequisites: 93% average in Algebra I and Geometry
(corequisite with permission of the department)

Honors Algebra Two completes the structure of real and complex number systems. The major topics covered include mathematical modeling in problem solving, graphing equations and inequalities, a comprehensive study of algebraic functions, and an introduction to logarithmic functions, exponential functions, discrete math and data analysis. This course is designed for students who excel in mathematics and plan to take Honors Precalculus the following year.

Precalculus

Grade 11, 12; 1 credit

Prerequisites: 85% minimum in both Algebra II and Geometry

Precalculus is designed for students who have completed Algebra Two or Honors Algebra Two and plan to take Honors Calculus the following year. A comprehensive study of transcendental functions and discrete math and their applications is included.

Honors Precalculus

Grade 11, 12; 1 credit

Prerequisites: 90% average in Honors Algebra II and Geometry

Honors Precalculus is taken by students who have completed Honors Algebra Two and plan to take AP Calculus or AP Statistics the following year. A comprehensive study of transcendental functions and discrete math and their applications, and an introduction to calculus are included. Solving problems algebraically, numerically, and graphically is the major emphasis of this course.

Calculus

Grade 12; 1 credit

Prerequisite: 90% average in Precalculus or Honors Precalculus

Calculus is designed for students needing a review of Precalculus topics. Following this review, topics will include differentiation, integration of algebraic functions and transcendental functions, along with applications. This course provides the foundational skills for success in college level calculus.

Functions, Statistics, and Trigonometry

Grade 12; 1 credit

Prerequisites: Algebra II and Geometry

Functions, Statistics and Trigonometry is designed for students who need review in algebra and geometry. This will be followed by a study of trigonometry, discrete math and statistics. Other topics may vary yearly depending on the background and interests of the students and teacher.

Statistics

Grades 11 and 12

Prerequisite: Precalculus or Honors Precalculus (may be concurrent)

This is an introductory statistics class intended for those students who are interested in Statistics but are not ready for the rigor of AP Statistics.

AP Calculus-AB

Grade 12; 1 credit

Prerequisite: 90% average in Honors Precalculus

Advanced Placement Calculus-AB satisfies all the requirements designed by the College Board and is equivalent to one semester of college level calculus. Students who enroll in this course are required to take the AP Calculus exam in May. The differentiation and integration of algebraic and transcendental functions with applications are the major topics.

AP Calculus-BC

Grade 12; 1 credit

Prerequisite: 93% average in Honors Precalculus

Advanced Placement Calculus-BC satisfies all the requirements designed by the College Board and is equivalent to two semesters of college level calculus. Students who enroll in this course are required to take the AP Calculus exam in May. Upon taking the AP test, they will receive a BC score and an AB subscore. The differentiation and integration of algebraic and transcendental functions with applications are the major topics.

AP Statistics

Grade 11, 12; 1 credit

Prerequisite or corequisite: 90% average in Precalculus or Honors Precalculus or Teacher Recommendation

Advanced Placement Statistics satisfies all the requirements for the curriculum as designed by the College Board and is equivalent to one semester of college level non-calculus-based statistics. Students who enroll in this course are required to take the AP Statistics exam in May. The four major areas covered by the course are exploring data, planning a study, anticipating patterns, and statistical inference.

Multivariable Calculus

Grade 12; 1 credit

Prerequisite: 90% average in AP Calculus BC

In Multivariable calculus, students will extend what was learned in AB and BC calculus, to see how single-variable calculus generalizes to higher dimensions. Students will study vectors and curves in two- and three-dimensional space, as well as differentiation and integration of multivariable functions.

Modern and Classical Languages

We believe that the limits of our language are the limits of our world and that our mission is to prepare our students to successfully take their places in the global century. We offer courses that teach the past as well as the present, and address both the cultural and literary heritages of these languages. There is much to learn from other humans in other places as well as other times. Languages help us to better know our own cultural roots and, at the same time, open our minds to other cultures and perspectives.

We know from experience that language learning helps us not only to make connections with global society, but also stimulates critical thinking skills that are vital for success in other areas of the curriculum. Thus it helps us to be better citizens of the world and expands our horizons for future travel, education and career opportunities.

In our language courses, students discover the limits of their native language, expand their worldview, and develop their ability to communicate in both English and a second language. We prepare students for authentic, practical language situations in areas including general culture, history, literature, music, film, and cuisine.

Chinese I

Grade 9, 10, 11, 12; 1 credit

Prerequisite: none

Chinese I is a one-year course in Mandarin designed to teach students to use short sentences, learned words and phrases and simple questions and commands when speaking and writing; understand some ideas and familiar details presented in clear and uncomplicated speech when listening; understand short texts enhanced by visual clues when reading. Chinese is spoken as much as possible in class. Students will learn how to greet, how to introduce, how to talk about contact information, how to express likings/ dislikings, how to ask and respond to questions of everyday situations. Students will be exposed to authentic materials to help them better understand and appreciate what they are learning. Computers and internet will be frequently used for practice and research.

Chinese II

Grade 9, 10, 11, 12; 1 credit

Prerequisite: Chinese I

Chinese II is a one-year course in Mandarin. Students expand their ability to perform all the functions developed in Chinese I. They also develop the ability to make requests in speaking, listening, reading and writing, such as asking for class schedule; express their needs of borrowing things in the classroom setting; understand and express important ideas and some detail, such as asking and responding about date, daily routine; describe and compare the housing need in American and Chinese culture. Students use and understand learned expressions, sentences and strings of sentences, questions, and polite commands when speaking and listening; create simple paragraphs when writing; understand important ideas and some details in highly contextualized authentic texts when reading.

Honors Chinese III

Grade 9, 10, 11, 12; 1 credit

Prerequisite: Chinese I and II

Honors Chinese III is a one-year course in Mandarin. Students expand their ability to perform all the functions developed in Chinese I and II. They also develop the ability to clarify, ask for and comprehend clarification when speaking or listening, express and understand opinions when reading or writing; narrate and understand narration in the present, past, and future; identify, state and understand feelings and emotions in reading, writing or face-to-face speaking. They can use strings of related sentences when speaking, understand most spoken language when the message is deliberately and carefully conveyed by a speaker accustomed to dealing with learners when listening; create simple paragraphs when writing; acquire knowledge and new information from comprehensive, authentic texts when reading. Since Honors Chinese III is a preparation course for the AP Chinese, typing in Chinese is another skill to be addressed. Students will also acquire more vocabulary and grammar patterns throughout the year. Students will gain some basic knowledge of Chinese poetry and literature. The instruction will be conducted in 80% of Chinese.

Honors Chinese IV / AP Chinese

Grade 9, 10, 11, 12; 1 credit

Prerequisite: Chinese I, II, & Honors Chinese III

Honor Chinese IV/AP Chinese Language and Culture is a one year course that covers the equivalent of a second-year (and/or fourth-semester) college Chinese course. This course is designed to integrate all the four skills, namely listening, speaking, reading and writing, as required in language learning, through sociocultural context; provide students with varied opportunities to further develop their proficiencies across the three communicative modes - interpersonal (speaking, listening, reading, and writing skills), interpretive (listening and reading skills), and presentational (speaking and writing skills). The 5 Cs (communication, cultures, connections, comparisons, and communities), as outlined in the Standards for Foreign Language Learning for the 21st Century will be reflected throughout the course. Students in this course learn to appreciate culture through the use of authentic materials, native speakers in the local community, class discussion and cultural comparison. The class is conducted in mostly Chinese (90% or above, except for grammar or confusing project procedure explanation). Learning will happen through plenty of scaffolding experiences, various cooperative learning activities. To meet the needs of different learners, different activities are employed for students to choose (choice boards, online vocabulary learning vs flashcards ...). Basic knowledge of the language, such as grammar, vocabulary, idioms, and expressions is introduced and reinforced throughout the course. By use of Knowledge transfer instead of mechanic drilling, higher level thinking skill is developed. Assignments are on daily basis, handwriting and computer typing combined. There will be various assessments linked to unit themes, including quizzes, tests, projects, participation in all four skills. Prior to assessments, rubric is provided and explained for clear direction and instruction. Course content comprises themes of students' interests, socials issues, current events. Materials are selected from various textbooks, web articles, video clips, photos, etc. that are used mostly by native speakers.

French I

Grade 9, 10, 11, 12; 1 credit

Prerequisite: none

French I builds the foundation for all other French courses and teaches beginning students to speak, write, read, and listen in French. Areas of focus include grammar, vocabulary, phonetics, practical conversation, and general culture and civilization of the Francophone world. The course is conducted in French as much as possible, and increasingly so throughout the year.

French II

Grade 10, 11, 12; 1 credit

Prerequisite: French I

French II a one-year course for students at John Bapst Memorial High School to be offered to students who have successfully completed French I. French Two aims to strengthen the foundation that students obtain in French I and is designed towards helping students with longer conversational exchanges, writing more complex sentences, and reading for meaning. French is spoken in the classroom as much as possible and its use will increase as we advance through the year. The student will use reasonable accuracy in communication with the teacher and others. Students should be willing to participate,

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practice, study and do homework on regular basis to learn the grammar, structure, tenses and vocabulary of this level.

Honors French III

Grade 11, 12; 1 credit

Prerequisite: 90% in French II or teacher recommendation

This course emphasizes speaking, reading, writing and comprehension of the French Language, and is conducted almost entirely in French. Fluency will be promoted through proficiency conversations, which will be based on units of study, incorporating new grammar and vocabulary, and will occur throughout the year. Francophone culture will be included, as well as an introduction to selected longer works of French literature.

Honors French IV / AP French

Grade 12; 1 credit

Prerequisite: 90 % average in Honors French III or permission of the department

This course emphasizes a high level of speaking, reading, writing and comprehension of the French Language, and is conducted entirely in French. Fluency will be promoted through in class discussions and oral presentations. The study of cultures from the Francophone world is an essential part of this class. Various classic works of French literature from different time periods are studied, for example *Cyrano de Bergerac*, *Les Contes de la Mère l'Oye*, *Le Comte de Monte-Cristo* and Aimé Césaire's *Une tempête*. The class is organized around the 6 fields of the AP French Language and Culture exam (Global Challenges, Contemporary Life, Personal & Public identities, Science & Technology, Families & Communities, Beauty & Aesthetics). Students in this course have the option of taking it as an Advanced Placement course.

English as a Second Language - Intermediate

Grade 9, 10, 11, 12; ½ credit

Prerequisite: Oral and Written Interview

Intermediate ESL is a one-semester course designed to improve student's English across all four skills (reading, writing, listening, and speaking) to help them succeed in the classroom. Students will review as well as encounter new grammar, read short texts and articles, learn academic vocabulary, and practice listening and speaking in the classroom on a daily basis. Presentations and written assignments are assigned frequently to develop fluency and accuracy. Additionally, class time will include academic support to build skills for students' other academic classes. Daily class participation and readiness is essential to success in this course.

Advanced ESL

Grade 9, 10, 11, 12; 1 credit

Prerequisite: Oral and Written Interview; Successful Completion of Workshop I

The Advanced ESL is a one-semester course designed to improve mastery of student's English across all four skills: reading, writing, listening, and speaking. Students will learn and apply grammar and

structures for more complex writing, read longer texts for analysis, learn academic vocabulary, and practice listening and speaking in the classroom on a daily basis. Formal presentations and written assignments are assigned frequently to develop fluency and accuracy. Additionally, class time will include academic support to build skills for students' other academic classes. Daily class participation and readiness is essential to success in this course.

Advanced TOEFL PREP

English as a Second Language

Grade 12; 1 credit

Prerequisite: Oral and Written Interview; Successful Completion of Workshop II

The Advanced TOEFL Prep class is a one-semester course designed to improve mastery of student's English across all four skills as they relate to the TOEFL exam: reading, writing, listening, and speaking. Students will learn ways to successfully approach each section of the test as well as review pertinent grammatical items as they apply to TOEFL test questions. Additionally, class time will include academic support for students' other academic classes. Daily class participation and readiness is essential to success in this course.

Latin I

Grade 9, 10, 11, 12; 1 credit

Prerequisite: None

Latin One is the first of four courses for students in the Latin curriculum. Attention is given to the study of vocabulary and basic grammar which prepares the students to read and understand Latin. One main goal of all the Latin courses is to read a variety of Latin literature by various authors in order to understand the ancient Romans and also ourselves. To this end, we begin reading adaptations of the authors from the first week. These stories include the foundation myth of Rome, a comedy about twin brothers separated from when they were young and the tale of an opportunistic traitor. The course also includes learning English derivatives from the Latin, Greco-Roman mythology and Roman history for its founding through the early Republic.

Latin II

Grade 9, 10, 11, 12; 1 credit

Prerequisite: Latin I

Latin II is the second of four courses for students in the Latin curriculum. The course reviews all the elements of Latin I and continues the study of vocabulary and basic grammar as the students to read and discuss the Latin which becomes incrementally challenging. Among the stories which we read this year are Pliny's account of the eruption of Mt. Vesuvius, Tacitus on the Great Fire of Rome, which was perhaps started by Nero and Apuleius' re-telling of the myth of Cupid and Psyche. English derivatives, mythology and Roman history through the beginning of the empire are also explored.

Honors Latin III

Grade 11, 12; 1 credit

Prerequisite: 90% in Latin II or teacher recommendation

Latin III will review and strengthen the Latin grammar and syntax of previous years and complete the foundation for reading real Latin. Students read and translate a wide selection of authors. They learn about the rhetorical devices which authors use in their writings to enhance what they are saying. Authors include Caesar, Cicero, Catullus, Ovid, Horace, Vergil and Pliny. The historical period covers from the Gallic Wars (58 BCE) through the second century CE, when the Roman Empire was at its greatest extent.

Latin IV/ AP Latin

Grade 12: 1 credit

Prerequisite: 90% or higher in Latin III

In Advanced Placement Latin students read, translate, understand, analyze and interpret the lines of Vergil's Aeneid and Caesar's De Bello Gallico that are required by the course syllabus. In addition, students will read in English the entire Aeneid and Gallic War. The course includes the study of the cultural, social, and political context of these pieces of literature. Critical appreciation of the Aeneid as poetry also includes learning to read the verses with attention to scansion and phrasing. We also seek to understand the purpose of these authors in writing their accounts as they do.

Spanish I

Grade 9, 10, 11, 12; 1 credit

Prerequisite: None

This exciting course engages students in the fundamentals of Spanish communication in the most common situations (e.g. discussing interests, family, food). Using resources available now through technology, today's students have a chance to immerse themselves in the language as never before. There are on-line resources accompanying our curriculum both for quality feedback on their increasing language skills as well as cultural topics.

Spanish II

Grade 9, 10, 11, 12; 1 credit

Prerequisite: Successful completion of Spanish I (or equivalent test for transfers, native speakers). It is highly recommended that any students taking Spanish 2 have at least a final grade of "C" in Spanish I.

This continuing course engages students in increased skills of Spanish communication (developing written, spoken, audio comprehension and reading skills) through focus on topics relevant to teens: school, activities, daily routine, shopping, etc.

Among technological resources at this level, students have a chance to record themselves, do on-line group projects (e.g. Día de los Muertos), perform and video skits (both presentational and interactive), make creative projects (among these have been web pages, newspapers, and others).

Honors Spanish III **Grade 11, 12; 1 credit**

Prerequisite: 90% in Spanish II or teacher recommendation

This course emphasizes speaking, reading, writing and comprehension of the Spanish language. Through the reading of the works of various authors, the students become better acquainted with the Hispanic culture. These readings also serve as a basis for oral presentations, discussions, and compositions. Students are exposed to authentic resources of the Spanish speaking world giving them the opportunity to experience and apply the target language in real life situations. There is a continual review of grammar throughout the course in a way that engages students and immerses them not only in the language but also in the culture of the many Spanish speaking countries. Each student is assigned one or two countries in order to become an 'expert ambassador' who knows about geography, politics, well-known personalities, and cultural aspects of the country or countries he/she represents. The course is conducted in Spanish and students are expected to use Spanish all the time.

Honors Spanish IV / AP Spanish Language and Culture **Grade 12, 1 credit**

Prerequisite: 90% or higher in Honors Spanish III or teacher recommendation

Honors Spanish IV (Language and Culture) is a course for advanced students who want to achieve proficiency in speaking, understanding, reading and writing Spanish and to develop an appreciation of the Spanish language and Hispanic culture. It includes literature from Spain and Latin America chosen to promote meaningful conversations through relevant themes. Through authentic resources students gain more advanced skills such as analyzing texts, making cultural comparisons, and using the language to express their opinions. Authentic resources include online texts, audio, and audiovisual as well as traditional print resources (literature, essays, and various articles) with the goal of providing students a rich, diverse learning experience. Students in this course have the option of taking it as an Advanced Placement course. This course is conducted completely in Spanish.

The class is organized around the 6 fields of the AP Spanish Language and Culture exam (Global Challenges, Contemporary Life, Personal & Public identities, Science & Technology, Families & Communities, Beauty & Aesthetics).

AP Spanish Literature **Grade 12; 1 credit**

Prerequisite: 90% average in Spanish IV or teacher recommendation

AP Spanish Literature is a course for advanced students who want to develop their proficiency and their cultural understanding through careful reading and critical analysis of literature written in Spanish. This course explores Spanish, Latin-American, and U.S. Latino authors and their works from the medieval period to present day. This course wouldn't be complete without reading at least some chapters of the signature novel *El Ingenioso Hidalgo don Quijote de la Mancha*. This course makes thematic connections between texts of various genres and historical periods. It also makes interdisciplinary connections to the literature of the Spanish-speaking world through art, music, film,

history and other academic disciplines. Students in this course have the option of taking it as an Advanced Placement course. The course is conducted completely in Spanish.

Science Department

In our increasingly scientific and technological world, students need a strong background in the basic sciences of biology, chemistry and physics in order to be well-prepared for college and to be active and engaged members of today's global society. The John Bapst Science Department provides a complete program of studies in the sciences to meet these needs. Students are required to take a minimum of three laboratory classes, with biology or honors biology and chemistry or honors chemistry being mandatory. Most students round out their study of science with physics or honors physics, which provides for a complete program of college preparation. The application of basic principles to real-world situations is emphasized in each course, which is realized through a comprehensive laboratory program. Even classes not designated as "lab" classes incorporate a hands-on approach and inquiry-based learning. Elective classes in the biological, earth and space sciences allow students to explore areas of personal interest. The Science Department offers Advanced Placement courses in biology, chemistry and physics for students seeking a more rigorous program of studies. Students with exceptional interest in science are encouraged to participate in the STEM Distinguished Graduates Program, which gives the student the opportunity to pursue studies in science, technology and math outside of the regular curriculum.

Biology

Grade 9, 10, 11, 12; 1 credit

Prerequisite: None

Biology is a required, one-year course for 9th grade students. Major units of this course include cellular biology, genetics, evolution, and ecology. The themes of "Form Fits Function," "Emergent Properties," "Unity in Diversity," "Homeostasis," and "Levels of Organization" are woven through the curriculum. Laboratory activities are designed to provide conceptual reviews, basic laboratory skills, and an opportunity to practice methods of science. Because recent and future breakthroughs in biotechnology will require our students to challenge their value systems and ethical standards, they will be required to go beyond simply gaining knowledge of biological concepts. They will practice analyzing, synthesizing, and evaluating that knowledge in order to develop the ability to make wise decisions for themselves, and as contributing members of society.

Honors Biology

Grade 9, 10; 1 credit

Prerequisite: Placement by examination

Biology is a required, one-year course for 9th grade students. Major units of this course include cellular biology, genetics, evolution, and ecology. The themes of "Form Fits Function," "Emergent Properties," "Unity in Diversity," "Homeostasis," and "Levels of Organization" are woven through the curriculum. Laboratory activities are designed to provide conceptual reviews, basic laboratory skills, and an opportunity to practice methods of science. Because recent and future breakthroughs in biotechnology will require our students to challenge their value systems and ethical standards, they will be required to go beyond simply gaining knowledge of biological concepts. They will practice analyzing, synthesizing, and evaluating that knowledge in order to develop the ability to make wise decisions for themselves, and as contributing members of society. A semi-college pace, greater depth of coverage, several new topics, as well as a considerably greater amount of reading and student responsibility, distinguish this from the regular biology course.

Chemistry

Grade 10, 11, 12; 1 credit

Prerequisites: Biology and Algebra I

This course introduces the students to the fundamental concepts of chemistry. It strongly emphasizes a kinetic/molecular approach where chemical action is explained in terms of moving molecules and changes in energy levels. The course prepares the student for the further study of chemistry and gives them a "molecular view" of matter. Topics covered include atomic and molecular structure, quantum theory, types of reactions, stoichiometry, energy, periodicity, bonding, kinetic theory, properties of matter, solutions, reaction rates, equilibrium, acids, bases, redox, and some organic chemistry. Laboratory work serves to introduce and reinforce ideas as well as to test both knowledge and skill.

Honors Chemistry

Grade 10, 11, 12; 1 credit

Prerequisite: 90% in Algebra I, Biology with an average of 93%, Honors Biology with an average of 90%, or permission of the instructor

This course introduces the students to the fundamental concepts of chemistry. It strongly emphasizes a kinetic/molecular approach where chemical action is explained in terms of moving molecules and changes in energy levels. The course prepares the student for the further study of chemistry and gives them a "molecular view" of matter. Topics covered include atomic and molecular structure, quantum theory, types of reactions, stoichiometry, energy, periodicity, bonding, kinetic theory, properties of matter, solutions, reaction rates, equilibrium, acids, bases, redox, and some organic chemistry.

Laboratory work serves to introduce and reinforce ideas as well as to test both knowledge and skill. A semi-college pace, greater depth of coverage, several new topics, as well as a considerably greater amount of reading and student responsibility, distinguish this from the regular chemistry course.

Physics

Grade 11, 12; 1 credit

Prerequisites: Biology and Chemistry

This course introduces students to the fundamental principles which underlie the physical world.

Topics include the scientific method, metrics, kinematics, Newtonian dynamics, energy and momentum, electricity, magnetism, light, optics, and relativity. The focus is on the application of basic principles to solve physical problems. The course also includes an extensive program of laboratory exercises, which will assist the student in the understanding of fundamental physical concepts.

Honors Physics

Grade 11, 12; 1 credit

Prerequisites: Biology; Precalculus or Honors Precalculus (may be a corequisite);

a 90% average in prior science courses or permission of the department

Honors Physics is a calculus-based introductory course for the student who is willing to accept the challenge of an advanced physics curriculum. The scope of this course is the same as that of the regular physics course; however, the topics are covered in greater depth, and there is a stronger emphasis on mathematical problem solving. Laboratory experiments are much more extensive, with stress on the proper application of the scientific method in the integration of physical events.

AP Biology

Grade 10, 11, 12; 1 credit

Prerequisites: Biology with a grade of 93%, Honors Biology with a grade of 90% or permission of the department

Chemistry or Honors Chemistry [may be concurrent]

The Advanced Placement Biology course is designed to be the equivalent of a college introductory biology course usually taken by biology majors during their first year. It aims to provide students with

the conceptual framework, factual knowledge, and analytical skills necessary to deal with the rapidly changing science of biology. After showing themselves to be qualified on the AP Examination, some students, as college freshmen, are permitted to undertake upper-level courses in biology or to register for courses for which biology is a prerequisite. Other students may have fulfilled a basic requirement for a laboratory-science course and will be able to undertake other courses to pursue their majors.

The growth of biological thought and information is accelerating at an exponential rate, and the integration of this material into a logical, teachable format presents an extraordinary challenge to college and AP teachers alike. The major goal of the AP Biology course is to provide a learning environment that enables students to develop a solid understanding of the principal concepts in biology. The AP Biology course and AP Biology Examination will stress the basic facts and the synthesis of these facts into major concepts and themes.

AP Chemistry

Grade 11, 12; 1 credit

Prerequisites: Chemistry with a grade of 93% or Honors Chemistry with a grade of 90% (or permission of the department)

Advanced Placement Chemistry is the equivalent of a general introductory chemistry course at the college level. It fully satisfies the AP Chemistry curriculum requirements stipulated by The College Board. The course includes several laboratory experiments in addition to the ones required in the curriculum and a small amount of time is allotted to examine the questions of research ethics as well as career opportunities in the field of chemistry. Students who take this course are encouraged, but not required, to take the AP Chemistry exam in the spring.

AP Physics

Grade 11, 12; 1 credit

Prerequisite: Grade of 90% in Physics or Honors Physics courses (or permission of the department).

Corequisite: Calculus

Advanced Placement Physics is a calculus-based introductory course for the student who is willing to accept the challenge of an advanced placement physics curriculum. As a first year introductory physics course, the primary purpose of this course is to prepare students to successfully complete the mechanics portion of the AP Physics C test. The topics in this class are therefore restricted primarily to mechanics (the study of motion), with electricity and magnetism being studied as time allows. A primary focus of the class is the development of strong problem-solving skills in each student. Higher-level mathematical skills on the part of the student are assumed, and calculus is used extensively in the derivation of physical concepts. This class also incorporates an extensive laboratory program, with emphasis on acquiring strong observational and analytical skills.

Anatomy and Physiology I

Grade 11, 12; ½ credit

Prerequisite: Biology or Honors Biology

This one semester advanced course focuses on the anatomy and physiology of humans. The structure and function of the human body is studied using a systems approach. Laboratory investigations compliment the course by including microscopic investigations of histological specimens, physiological experiments, and dissections. In addition, as the structure and function of each organ system is investigated, students will also learn about how disease and disorder can affect the individual systems and human organism as a whole.

Anatomy and Physiology II

Grade 11, 12; ½ credit

Prerequisite: Biology or Honors Biology

This one semester advanced course focuses on the anatomy and physiology of humans. The structure and function of the human body is studied using a systems approach. Laboratory investigations compliment the course by including microscopic investigations of histological specimens, physiological experiments, and dissections. In addition, as the structure and function of each organ system is investigated, students will also learn about how disease and disorder can affect the individual systems and human organism as a whole.

Astronomy

Grade 11, 12; ½ credit

Prerequisite: Credit in Biology

Astronomy is a one-semester course that allows students to explore the structure and dynamics of the universe at its largest scales. Special emphasis is placed upon what one can actually observe under starry skies and upon discovering how astronomers interpret their observations to create a deeper understanding of universal processes. Topics covered include: the night sky, methods of astronomical measurement, telescopes, the earth-moon system, dynamics of the solar system, planets and their structure, stars and stellar evolution, black holes, galaxies, and cosmology, including Big Bang theory. Hands-on activities and projects give students practice in making astronomical observations and introduce them to modern methods of astronomical investigation.

Ecology I

Grade 11, 12; ½ credit

Prerequisite: Biology

This semester advanced biology course provides the student with an overview of ecological science. The topics covered include an introduction to the earth's major terrestrial and aquatic ecosystems, population and community biology, biological diversity and speciation, succession, nutrient cycling, and mathematical modeling statistics. Topics such as evolution, bioethics, and natural resource management will be common threads throughout this course. Students will also complete a long term project involving both laboratory and library research.

Ecology II

Grade 11, 12; ½ credit

Prerequisite: Biology

This semester advanced biology course provides the student with a further overview of ecological science. Building on the material covered in Ecology I, the topics covered include an introduction to the earth's major terrestrial and aquatic ecosystems, population and community biology, biological diversity and speciation, succession, nutrient cycling, and mathematical modeling statistics. Topics such as evolution, bioethics, and natural resource management will be common threads throughout this course. Students will also complete a long term project involving both laboratory and library research.

Oceanography

Grade 11, 12; 1 credit

Prerequisite: Credit in Biology

This elective course focuses on the Earth's oceans: their history, physical and chemical oceanography, ocean currents and their impact on the global climate, waves, tsunamis, land-sea interactions, relationships between the biotic communities and abiotic factors. The effect of erosion and deposition on geologic oceanography is also studied. Man's relationship with the sea, and how human activity has affected the world's oceans are also explored.

Social Sciences Department

The Social Sciences Department offers John Bapst students a comprehensive college preparatory curriculum in the social sciences, with specific courses in history, economics, geography, government and political science, anthropology, and cultural studies. Beyond the specific factual content in these courses, the curriculum is designed to develop students' analytical thinking, speaking, and writing skills in order to prepare them for life in college and beyond. Its intent is to engage students in critical examinations of forces that have shaped our lives so that they may be better informed and more curious about contemporary issues and events. Consistent with John Bapst's mission to foster in students a respect for learning, for themselves, and for others, the department expects students to engage in course work so that they learn to develop and articulate reasoned assessments of our increasingly global world.

World History

Grade 9; 1 credit

Prerequisite: None

This course focuses on the political, social, economic, and religious trends which have helped shape the societies of the world. The course covers pre-history to the modern era with special focus on the Western traditions. There is an emphasis on effective note-taking, analytical reading and writing, cooperative and independent activities, and classroom discourse. Primary and secondary readings, video, and computer technology are also incorporated to enhance understanding of various periods. Students are introduced to the MLA format and are instructed to use library research in their essay writing. In keeping with the school mission, completion of this course provides students with strong skills in time-management, organization, and research skills necessary for college success.

American History

Grade 10; 1 credit

Prerequisite: World History

This course begins with a discussion of Native American cultures prior to European arrival in the Americas. The course then turns to the founding of European settlements in North America, with particular emphasis on the different methods, reasons, and results of these settlements. Building on this knowledge of British North America, the course examines the creation of American democracy, the American Revolution, and the drafting of the Constitution. The emphasis of the course then is on the New Republic, with particular emphasis on Jeffersonian and Jacksonian America. Considerable time and effort are devoted to setting the context of the Civil War through exploration of America's industrial revolution, westward expansion, and immigration. The course continues with a thorough examination of the Civil War and the subsequent Reconstruction, then turns to the rapid industrialization of the United States, with special emphasis on the rise of immigration, westward expansion, and the emergence of a capitalist system. Building on this knowledge of the country's changing landscape, the course examines progressive movements and budding internationalism at the turn of the century. The emphasis of the course then is American involvement in World War I and the roaring twenties. Considerable time and effort are devoted to the Jazz Age, the Great Depression, the administration of Franklin D. Roosevelt, and the New Deal. This course then turns to World War II, the Cold War, and the Vietnam War. If time permits the course concludes with a brief examination of the modern era, including the administrations of Ronald Reagan, Bill Clinton and George W. Bush. Students are expected to read a variety of primary and secondary sources considered essential to building an informed historiography of American history. Classroom activities include a mock trial, historical reenactments, and possibly interviews of military veterans.

AP American History

Grade 11 or 12; 1 credit

**Prerequisite: 90% average in American History
or permission of the department**

Advanced Placement U.S. History is designed to introduce students to specific, in-depth content and historical interpretations of this content in order to prepare them to think critically about U.S. history. Emphasis is placed on understanding changes over time and on helping students make informed judgments about past events based on specific factual information. A significant amount of effort is dedicated to developing conclusions about American history based on specific evidence in the form of persuasive essays.

This AP course begins with an examination of the founding of European settlements in North America, with particular emphasis on the Atlantic world in the eighteenth century. The course then turns to the creation of American democracy, the American Revolution, and the Constitution. The emphasis of the course then is on the New Republic, with particular focus on Jeffersonian and Jacksonian America. Considerable time and effort are devoted to setting the context of and then examining the Civil War. This course then turns to Reconstruction and other prominent issues in the late-nineteenth century, including immigration, westward expansion, and the emergence of an industrialized capitalist system. The focus then is on the early years of the twentieth century, touching on topics such as imperialism, progressivism, and World War I. A lengthy period is devoted to the Great Depression, the administration of Franklin D. Roosevelt, and the New Deal, setting up an examination of the causes and results of World War II. The focus then turns to the resulting Cold War. Special emphasis is placed on the consumer culture of the 1950s, the social and political unrest of the 1960s, the Vietnam War, and the economic and political developments of the 1980s. The course concludes with a brief overview of the modern era, including the presidencies of Bill Clinton and George W. Bush.

Advanced Placement American History is equivalent to an introductory college-level course; thus, class time is devoted to discussing outside readings. Students are expected to read a variety of primary and secondary sources considered essential to building an informed historiography of American history. To enhance the learning experience and to prepare for the Advanced Placement exam, students practice free-response and document-based essays on a regular basis.

AP Comparative Government

Grade 11 or 12; 1 credit

**Prerequisite: 90% average in American History
or permission of the department**

In this course students learn the fundamental concepts used by political scientists to study the processes and outcomes of politics in a variety of country settings. Cross-country studies are used to explain differences in processes and policy outcomes and to communicate the importance of global political and economic changes. Six countries are at the core of the AP Comparative Government course: China, Great Britain, Iran, Mexico, Nigeria and Russia.

AP European History

Grade 11 or 12; 1 credit

Prerequisite: American History

European History presents a chronological study of European history from the Renaissance to the present while focusing students on the advanced ideas of historical understanding, interpretation, and research. The course strives to build a competent framework for understanding the themes of modern European history. These themes are organized around several guiding principles—the power of the human intellect, the reflection of human activity in popular culture, political organization, diplomacy and negotiation, economic organization, and the evolution of society.

AP Human Geography

Grade 11 or 12; 1 credit

**Prerequisite: 90% average in American History
or permission of the department**

In this course students are introduced to a systematic study of patterns and processes that have shaped human understanding, use, and alteration of the Earth's surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice.

AP US Government & Politics

Grade 11 or 12; 1 credit

**Prerequisite: 90% average in American History or completion of AP US History
or permission of the department**

In this course students commence the study of American politics at the university level. We begin with a thorough examination of the founding of the American republic, with particular emphasis upon the differences between democratic and republican forms of government, the drafting of the Constitution, and the tenets of Federalism. We next turn our focus to American political culture, public opinion, political participation, and the formation of political parties. With a nod to the modern age we examine the roles of special interest groups and the media before rounding out the course with a look at the three branches of government and how they fashion policy.

Comparative World Cultures

Grade 11 or 12; ½ credit

Prerequisites: American History

The Comparative World Cultures course is an interdisciplinary course designed to increase student awareness of ways of life in other parts of the world. The study of social relationships and institutions, ideas and belief systems, religion, literature and history across cultures will allow students to gain an appreciation of cultural pluralism and develop specific knowledge of diverse societies. Geographic areas upon which the class will focus span the world and will also include the experiences of indigenous populations within the broader context of the regions in which they live. As students will study cultures around the globe, world geography will be a component of this course. After course

completion, students will have a better understanding of multiculturalism and its importance in today's increasingly plural world.

Contemporary World Issues

Grade 11, 12; ½ credit

Prerequisites: American History

This one-semester course takes contemporary events from around the globe and puts them into a thorough historical and cultural perspective. The goal of this course is for students to better understand the issues and events shaping the modern world in context. Through readings, discussion, statistical analysis, research projects, and presentations students will explore the issues that are currently shaping the history of the planet. The subject matter of this course will change from year to year in order to reflect ongoing events, crises, and news. The semester will be broken into 4 units, each of which will be focused on a contemporary issue affecting the world, with an emphasis on issues outside of the United States.

Cultural Anthropology

Grade 11, 12; ½ credit

Prerequisite: None

In Cultural Anthropology we begin with a brief tour through the physical origins of our kind. We next turn to language and its various forms and uses, human enculturation (with, of course, various rites of passage), and economic subsistence patterns. In our final push we take up the origins and scope of human religious practice, compare mythologies and folkloristics from around the world, and then conclude with a brief survey of art and music.

Economics

Grade 11, and 12; ½ credit

Prerequisite: American History

No matter where students go, or what they do when they graduate, they will encounter economic issues. This year-long course is designed to foster an appreciation for economic issues and give students a solid foundation in economic analysis. The first semester focuses on the fundamentals of Microeconomics - everything from the operation of a lemonade stand to complex banking operations and the analysis of business models and business decisions. Students will not only study business, but also create a small business as a means of gaining an understanding of essential business operations and thinking. The second semester will broaden the view and concentrate on Macroeconomic issues. We will look at governmental and international goals, policies, and decision-making. Students will learn essential economic analysis through readings, graphical analysis, current events, hands-on projects, experiments, and participation in class discussions.

International Relations

Grade 10, 11, or 12; ½ Credit (fall semester only)

Prerequisite: World History

During this semester course students will learn about the principles of international relations. Through a topic driven curriculum, students will explore how states (countries), international organizations, and non-governmental organizations (NGOs) interact with each other to deal with the world's most pressing areas of concern. Topics will include economic development, global security, sustainable development, globalization, and conflict resolution. Students will participate in simulations, presentations, and discussions concerning current pressing global issues.

Model United Nations

Grade 10, 11, or 12. ½ Credit

Prerequisite: World History

During this spring semester course students will learn how the United Nations operates through a series of real world simulations on current events topics. Through preparation during the course students will learn about research, public speaking, and negotiation. The final project for the course will be preparing for and attending the [Maine Model United Nations Conference](#) at the University of Southern Maine. No experience is necessary with Model United Nations. For students who want to participate in Model United Nations, there is an opportunity to participate through the Model UN Club.

Engineering and Technology Department

The courses offered by the Engineering and Technology Department encourage students to become creative problem solvers, and to develop skills and knowledge sets that will prepare them both for college level work, and for work experiences outside of school in the professional world. All classes engage students in a project based learning format, where they have an opportunity to systematically develop creative solutions to unique problems. All extra curricular opportunities offered in this department provide additional support to this aim, and provide students not involved with department courses a chance to explore some of the fields offered here. Along with computer programming, software engineering, and traditional engineering focused courses, students have a chance to explore these areas with both competitive and non-competitive extra curricular activities in cyber defense, robotics, coding, and IT support services.

AP Computer Science A
Grade 9, 10, 11, 12; 1 credit

Pre-requisite: Algebra I - Grade of 85 or better

This full year course will introduce students to the discipline of computer programming. Students do not need any prior programming experience in order to take this course. Students taking this course will be able to write their own computer programs by the end of the course, and have a solid understanding of computer science principles. Students in this course are required to take the Advanced Placement Computer Science exam in the late spring. A portion of this course will involve specific preparation for the AP exam, and may require meeting times outside of normal class meetings.

Course topics include core language structures, program flow and logic, algorithm development, introduction to data structures, proper documentation techniques, and graphical game development. The course consists of a series of lectures and small programming projects that will culminate in the creation of larger projects as the year progresses.

C Programming

Grade 10, 11, 12; 1/2 credit

Prerequisite: AP Computer Science A

Co-requisite: Algebra II

In this course students will dig more deeply into low level programming languages. Students will gain a greater appreciation for the true power a programmer has and a respect for that power. Memory management, complex data structures, efficiency, and sorting are a few of the topics to be covered. This course has as its prerequisite satisfactory completion of the Computer Science A course, or permission of the instructor. This course is a pre-requisite to most other advanced programming courses.

Course topics include: Program documentation, program control flow, developing algorithms, creation and manipulation of data structures, using references, memory management, and efficient program design. Students will apply each skill in a series of small projects that will be used to construct a framework of understanding that will open them to a wider series of applications and theoretical concepts for later work.

Artificial Intelligence

Grade 10, 11, 12; 1/2 credit

Pre-requisite: C Programming

This course has as a pre-requisite of C Programming. The intended audience is students looking for a deeper understanding of computer science principles, especially in the area of artificial intelligence, path mapping and game theory. Students in this course will develop their own partially intelligent programs, and develop learning algorithms. This course is not offered every year.

Network Programming

Grade 10, 11, 12: 1/2 credit

Pre-requisite: C Programming

This course has as a pre-requisite of C Programming. The intended audience is students looking for a deeper understanding of software engineering principles, especially in the area of network communications. Students in this course will develop chat bots, tcp and broadcast style communication protocols, and communication security protocols. This course is not offered every year.

2D Graphics Programming

Grade 11, 12: 1/2 credit

Pre-requisite: C Programming, Pre-Calculus

This course has as a pre-requisite of C Programming. The intended audience is students looking for a broad introduction to computer graphics in two dimensions. Students taking this course will be exposed to engine level computer graphics software design, and will study the fundamental principles of graphics. This course is intended for seniors that have completed a course in pre-calculus, as a thorough understanding of trigonometry is necessary to address the concepts in this class. This course is not offered every year.

3D Graphics Programming

Grade 11, 12: 1/2 credit

Pre-requisite: 2D Graphics Programming

This course has as a pre-requisite of C Programming. The intended audience is students looking for a broad introduction to computer graphics in three dimensions. Students taking this course will be exposed to engine level computer graphics software design, and will study the fundamental principles of graphics. This course is intended for seniors that have completed a course in pre-calculus, as a thorough understanding of trigonometry is necessary to address the concepts in this class. This course is not offered every year.

Linux Scripting

Grade 10, 11, 12: 1/2 credit

Pre-requisite: AP Computer Science A

This course has as a pre-requisite of AP Computer Science A. This course is intended for students looking for a strong introduction to server management and the Linux operating system, a system that is rapidly replacing Windows as the dominant platform in enterprise environments. Students taking this course will learn the basics of the Linux operating system, management via the command line interface, methods for system automation, system security methodologies, and software configuration procedures. This course is not offered every year.

Robotics I

Grade 10, 11, 12 ½ credit

This is a project based course, intended to give students with an interest in mechanical or electrical engineering some exposure to the field. Students will design and create robots in order to solve problems. There will be a strong focus in this course on the physical principles and mathematical underpinnings of design. This course also will focus on robot control through software.

Engineering I

Grade 11, 12; ½ credit

The primary goal of this course is to give students an opportunity to explore the field of engineering. Topics will largely be project based. All projects will involve mathematical and scientific research and planning prior to the creation of a prototype. Projects will be based on Physics principles, and students will work materials to produce both Electrical and Mechanical Engineering oriented projects. Equipment permitting, students may also produce software interfaces for digital hardware.

Engineering II

Grade 11, 12; ½ credit

Pre-requisite: Engineering I

The primary goal of this course is to take students further into Engineering. Students having already explored the basic concepts of engineering will, in this course, look more deeply at design, utilizing software tools to assist in implementing their vision into reality. Topics will largely be project based. Projects will be based on physical and or chemical principles, and students will work in teams to develop their projects.

Special Topics

China Past and Present

Grade 11 or 12; ½ credit

Prerequisites: None

The world's largest country has an economy that affects everyone today, but its cultural and political influences are growing too. This one-semester elective course introduces China's 5,000-year history and connects it to China in the 21st century and to America and the rest of the world today. Through nonfiction readings, movies, music, television, classical and contemporary literature, politics, philosophy, engineering, and more, students will develop an appreciation for the country and culture that brought us yin/yang, feng shui, Bruce Lee, wonton soup, writing in characters, and the Three Gorges Dam.

The course will operate its own lending library. Students will be choosing from a wide range of nonfiction works and literature (both Chinese literature in translation and Chinese-American literature) as they meet the voices of China past and present. Much of our reading will be excerpts; each student will also be responsible for one book-length study of his or her own choosing.

Writing will take the form of short reports, reflective journals, and one longer research paper, with students sharing their results with the class.

French Culture, Media, and History

Grades 9, 10, 11, 12; ½ credit

Prerequisite: none

This is a semester course designed to offer students at all levels an accessible, fun, and enlightening overview of the history and cultures of the French-speaking world, from Paris to Aroostook County, from Algeria to Haiti, from Québec to Senegal, and all points in between.

The course, including readings, is taught in English. Nevertheless, students learn some key French words and phrases along the way as they expand their cultural horizons.

Personal Finance

Grade 10, 11, 12; ½ credit

Pre-requisite: None

This course will inform students how individual choices directly influence occupational goals and future earnings potential. Real world topics covered will include goal setting, career planning, money management, banking, spending and credit, as well as saving and investing. Students will design personal budgets utilizing checking and saving accounts, gain knowledge in finance, debt and credit management, and evaluate and understand insurance and taxes. This course will provide a foundational understanding for making informed personal financial decisions leading to financial independence.

SAT Prep

Grade 10, 11, 12; no credit

Pre-requisite: None

This course can be taken during the school day or in an after school seminar. In the 3 weeks before an SAT exam, students will have focused instruction on how to prepare for success on the SAT.

Spanish Culture, Media, and History

Grades 9, 10, 11, 12; ½ credit

Prerequisite: none

This is a semester course designed to offer students at all levels an accessible, fun, and enlightening overview of the history and cultures of the Spanish-speaking world (Latin America, the Caribbean, Europe, Africa, the United States) . Based on the group of students enrolled, this course is taught in English or in Spanish. When taught in English, students will still learn some key Spanish words and phrases as they expand their cultural horizons.