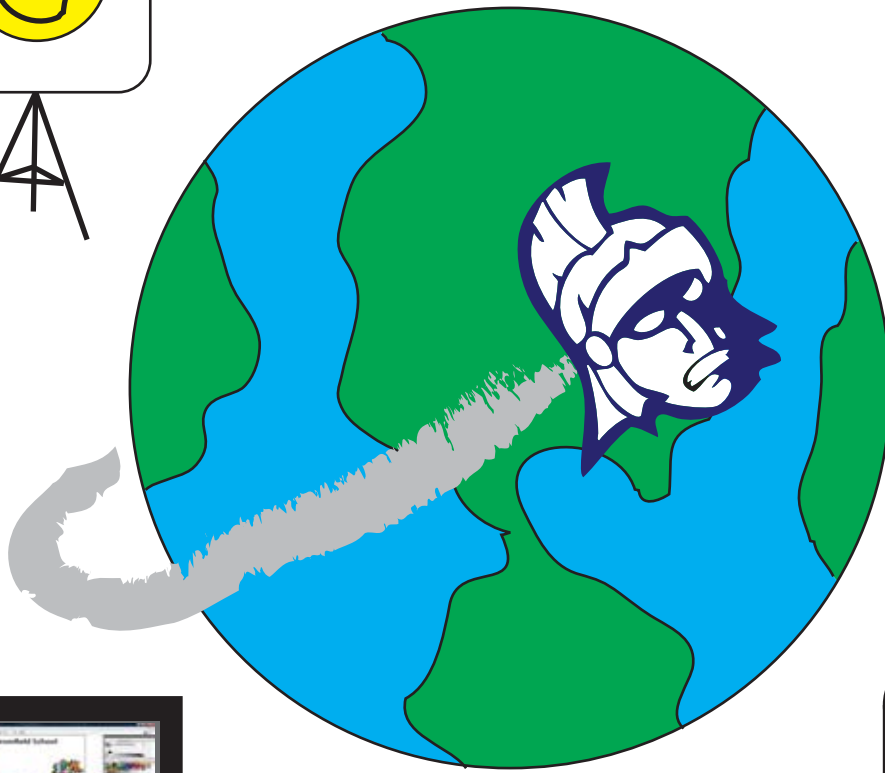
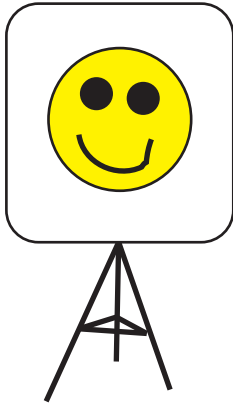


The Bromfield School



Program of Studies
2010-2011

The Bromfield School

14 Massachusetts Avenue • Harvard, Massachusetts • 01451
(978) 456-4152 • FAX (978) 456-3013

Mr. James F. O'Shea
Principal

Mr. Scott M. Hoffman
Associate Principal

The Bromfield School has a strong tradition of excellence that manifests itself in outstanding standardized assessment results, individual and collective athletic achievement, and acclaimed participation in visual and performing arts activities.

This program of studies is published annually as a catalogue of courses currently being offered at The Bromfield School. We believe it reflects The Harvard Education Plan and our District Strategic Plan that stress critical thinking, problem solving, and the demonstration of knowledge across the disciplines. In addition, The Bromfield School has strong co-curricular and extra-curricular programs to allow students to extend their learning and social development beyond the classroom and the school day.

Please take the time to review this document and carefully plan your course of study for next year. The course selection process should be guided by discussions between students, parents, teachers, and guidance counselors.

If you have any further questions regarding our program of studies, please contact the guidance office at 978-456-4152.

Sincerely,

James F. O'Shea
Principal

Counselors

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Assignment

Grades 7-12 last names A- H
x 543

Grade 6 all students, Grade 7-12 last names I-M
x 541

Grades 7-12 last names N- Z
x 547

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GRADUATION REQUIREMENTS

To be eligible for graduation, high school students must accumulate at least 22 course credits. One credit is granted for each course successfully completed that meets on a daily basis for the school year. Some courses may be taken on a part time basis for partial credit.

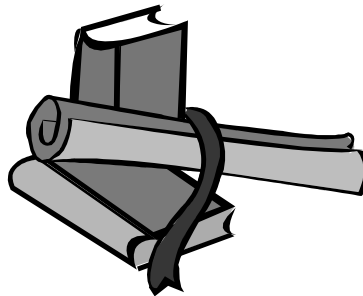
Of the 22 credits required for graduation, students must complete the following core distribution:

- English 4 credits (excluding electives)
- Mathematics 2 credits
- Science 2 credits, one of which must be Biology
- Social Studies 3 credits, one of which must be a year of United States History

Additional requirements include the completion of 40 hours of community service and passing grades on the Math and English sections of the MCAS test. Beginning with the class of 2010 students must pass the MCAS Science test, and beginning with the class of 2012 students must the MCAS American History test as well. Although not required for graduation, students are strongly encouraged to study a minimum of one foreign language for four years.

Students in grade 9 must be enrolled in physical education/health unless excused by a physician.

Any student who has satisfied the graduation requirements before the end of his or her senior year may qualify for a diploma. While students have the right to graduate before completing four years of high school, The Bromfield School does not encourage early graduation.



ENGLISH



The English Department introduces a reading and writing connection through the sixth grade language arts writing across the curriculum program. In alignment with all statewide and national standards, all English students develop oral and written fluency through an instructional writing program that emphasizes reading response, the literary essay and the research paper. The rigorous reading program begins each year with required summer reading. Reading strategies introduced in the middle school set the stage for the challenge and variety that comes with a literature-based curriculum. The mechanics of language and vocabulary building both complement the rich 6-12 curriculum.

Course Title: Introduction to Literature – Grade 9
Course Credits & Duration: 1 credit full year

Description:

This course introduces students to elements of literature and the major Western literary genres: epic and lyric poetry, the short story, the novel, and drama. The four major language components are reading, writing, thinking, and speaking. Students will be asked to read with their heads and their hearts; subjective and objective responses to literature can only enrich each other. This philosophy engenders a two-pronged approach: reading appreciation and rigorous analysis and skill building. Students will develop a literary tool kit: an understanding about how each genre works, its elements, and some of its major works. Analytical essay writing will form a major component of the course.

Reading selections may include: Of Mice and Men, Steinbeck
A Separate Peace, Knowles
Lord of The Flies, Golding
Ethan Frome, Wharton
Romeo and Juliet, Shakespeare
Animal Farm, Orwell
The Odyssey, selected chapters
Selected short stories

Prerequisites: none

Course Title: Introduction to Literature – Honors (Grade 9)
Course Credits & Duration: 1 credit full year

Description:

This course introduces students to elements of literature and the major Western literary genres: epic and lyric poetry, the short story, the novel, and drama. The four major language components are reading, writing, thinking, and speaking. Students will be asked to read with their heads and their hearts; subjective and objective responses to literature can only enrich each other. This philosophy engenders a two-pronged approach: reading appreciation and rigorous analysis and skill building. Students will develop a literary tool kit: an understanding about how each genre works, its elements, and some of its major works. Analytical essay writing will form a major component of the course.

This course will be an intensified version of the college prep section. Students will have more challenging tests, assignments and expectation levels. More independent work will also be required of these students.

Reading selections may include: A Separate Peace, Knowles
Siddhartha, Hesse
The Odyssey, Homer
Romeo & Juliet and Shakespeare
Great Expectations, Dickens
Lord of The Flies, Golding
Ethan Frome, Wharton
Selected short stories

Prerequisites: **B+ in Grade 8 English and teacher recommendation**

Course Title: **Classical Literature – Grade 10**
Course Credits & Duration: **1 credit full year**

Description:
This course involves the reading of the earliest prominent works of our literary heritage in the Western world and selected modern classics that reflect ancient themes. Writing and oral communication continue to be stressed, especially in terms of the essay of literary analysis. Vocabulary development and the mastery of grammar also continue to be core curriculum concerns. The course also includes an interdisciplinary research unit.

Reading selections may include: Beowulf, Unknown
The Bible As In Literature, Foresman
Oedipus Rex, Sophocles
Antigone, Sophocles
Macbeth, Shakespeare
Things Fall Apart, Achebe
Night, Wiesel
Death Be Not Proud, John Gunther
Frankenstein, Shelley
The House on Mango Street, Cisneros
Nectar in a Sieve, Markandaya
Selected Classical Poems

Prerequisites: **Successful completion of English 9**

Course Title: **Classical Literature – Honors (Grade 10)**
Course Credits & Duration: **1 credit full year**

Description:
This course involves the reading of the earliest prominent works of our literary heritage in the Western world and selected modern classics that reflect ancient themes. Writing and oral communication continue to be stressed, especially in terms of the essay of literary analysis. Vocabulary development and the mastery of grammar also continue to be core curriculum concerns. The course also includes an interdisciplinary research unit. This course requires additional outside reading.

Reading selections may include: Beowulf, Unknown
Things Fall Apart, Achebe
The Bible as/in Literature, Foresman
The House on Mango Street, Cisneros

Night, Wiesel
Wuthering Heights, Brontë
Antigone, Oedipus Rex, Sophocles
Hamlet, Shakespeare
Rime of the Ancient Mariner, Coleridge
Frankenstein, Shelley

Prerequisites: **B- in Honors English 9 and teacher recommendation**

Course Title: **American Literature – Grade 11**
Course Credits & Duration **1 credit** **full year**

Description:

Chronologically or thematically presented, literary selections are taught not only for their artistic merit and timeless themes, but also as reflections of the times and social forces that produced them. Students are encouraged to see the inter-relatedness of the literature they read and materials they've encountered in history/ social studies courses. Analytical essays and critical reviews are assigned regularly. Vocabulary development and grammar review are emphasized.

Reading selections may include: Elements of Literature
The Crucible, Miller
The Scarlet Letter, Hawthorne
The Catcher in the Rye, Salinger
The Great Gatsby, Fitzgerald
A Farewell to Arms, Hemingway
Death of a Salesman, Miller
The Things They Carried, O'Brien
Their Eyes Were Watching God, Hurston

Prerequisites: **Successful completion of English 10**

Course Title: **American Literature – Honors (Grade 11)**
Course Credits & Duration **1 credit** **full year**

Description:

Chronologically presented, literary selections are taught not only for their artistic merit and timeless themes, but also as reflections of the times and social forces that produced them. Students are encouraged to see the inter-relatedness of the literature they read and materials they've encountered in history/ social studies courses. Analytical essays and critical reviews are assigned regularly. Vocabulary development and grammar review are emphasized. Students read an independent novel and write a literary analysis on it each term.

Reading selections may include: Elements of Literature
The Crucible, Miller
The Scarlet Letter, Hawthorne
The Catcher in the Rye, Salinger
The Awakening, Chopin
The Grapes of Wrath, Steinbeck
The Great Gatsby, Fitzgerald
A Farewell to Arms, Hemingway

A Raisin in The Sun, Hansberry
As I Lay Dying, Faulkner
Death of a Salesman, Miller
The Things They Carried, O'Brien
Their Eyes Were Watching God, Hurston

Prerequisites: **B- in Honors English 10 and teacher recommendation**

Course Title: **English Literature – Grade 12**
Course Credits and Duration: **1 credit full year**

Description:

This course traces the development of the English language, history, and literature. Theme, ideas and literary devices are analyzed through formal critical essays and informal journal entries. Students are encouraged to actively engage in the material being studied through classroom discussion, a large component of the course.

Reading selections may include: Sir Gawain, Unknown
A Shakespearean play
Shakespeare's sonnets
Jane Eyre, Bronte
The Importance of Being Ernest &
The Picture of Dorian Gray, Wilde
A Clockwork Orange, Burgess
The Canterbury Tales, Chaucer
Loneliness of The Long Distance Runner, Sillito
Brave New World, Huxley
Dracula, Stoker
Silas Marner, Eliot
Selected poetry, prose from each literary period

Prerequisites: **Successful completion of grade 11**

Course Title: **English Literature – Honors (Grade 12)**
Course Credits and Duration: **1 credit full year**

Description:

This course traces the development of the English language, history, and literature. Theme, ideas and literary devices are analyzed through formal critical essays and informal journal entries. Students are encouraged to actively engage in the material being studied through classroom discussion, a large component of the course. Independent quarterly projects complement the course curriculum.

Reading selections may include: The Canterbury Tales, Chaucer
King Lear, Shakespeare
Shakespeare's sonnets
Brave New World, Huxley
1984, Orwell
Tess of the D'Urbervilles, Hardy
Heart of Darkness, Conrad
Candide, Voltaire

The Importance of Being Ernest, Wilde
A Clockwork Orange, Burgess
Selected poetry, prose from each literary period

Prerequisites: **B- in Honors English 11 and teacher recommendation**

Course Title: **Advanced Placement English Literature and Composition**

Course Credits & Duration: **1 credit full year**

Description:

This rigorous course is designed for seniors who enjoy the challenge of heavy reading, active literary analysis and frequent writing. Following guidelines developed by the College Board, students will work with materials and methods similar to those encountered at the introductory college level. Poetry, fiction and non-fiction reading selections from the 16th century to the present dominate.

Students completing this course and scoring well on the standardized College Board Advanced Placement English Literature and Composition examination may be granted advanced placement status at their college/university.

Reading selections may include: Literature: Structure, Sound, and Sense
The Canterbury Tales, Chaucer
Othello & King Lear, Shakespeare
Obasan, Kogawa
Cat's Cradle & Slaughterhouse-Five, Vonnegut
One Day in The Life of Ivan Denisovich, Solzhenitsyn
Madame Bovary, Flaubert
Heart of Darkness, Conrad
The Plague, Camus
Pride & Prejudice, Austen
1984, Orwell
Brave New World, Huxley
Candide, Voltaire
Dubliners, Joyce
Crime and Punishment, Dostoevsky
A Clockwork Orange, Burgess

Prerequisites: **B+ – A- in Honors American Literature and strong recommendation by the teacher and department leader. Students will be assigned books to be read during the summer and will be required to write essays throughout the summer.**

Course Title: **Expository Writing (Grades 11 and 12)**

Course Credits & Duration: **1/2 credit First semester – Seniors
Second semester - Juniors**

Description:

Various forms of the essay (critical analysis, personal narrative, memoir, argumentation, definition, comparison/contrast and analogy) are the backbone of this first-semester course. Students work on personal statements, such as those required for college applications, and respond to literary selections and news and magazine articles on issues and topics that inspire purposeful expository writing.

Textbook Titles: The Bedford Reader
Selections from The New Yorker, Harper's, Atlantic Monthly

Prerequisites: none

Course Title: Contemporary Fiction (Grades 11 and 12)
Course Credits & Duration: 1/2 credit Second semester

Description:

Offered second semester. Contemporary Fiction is a survey course of post WWII American fiction. The short story and the novel are explored in terms of structure, theme, characterization and literary devices.

Possible Textbook Titles: The Curious Incident of the Dog in the Night-Time, M. Haddon
Obason, Kogawa
A Prayer for Owen Meany, J. Irving
Cat's Cradle, Vonnegut
Snow Falling on Cedars, Guterson
The Joy Luck Club, A. Tan
The Awakening, K. Chopin
Ceremony, Silko
Sophie's World, Gaarder
Short Stories

Prerequisites: none

Course Title: Creative Writing (Grades 11 and 12)
Course Credit & Duration: 1/2 credit First or Second Semester

Description:

Creative writing affords student writers experimental opportunities with a variety of genres, points of view, and narrative voices. A portfolio-assessment approach will leave students with a diverse collection of sample works. Conferencing, personal reflection, and rubric design with assessment will guide writers through this odyssey into creative expression. Students are encouraged to formally submit a portfolio piece in the writer's market.

Prerequisite: none

Course Title: Introduction to Media Arts (Grades 9 - 12)
Course Credits & Duration: 1 credit full year

Description:

Introduction to Media Arts is designed to help students develop an informed and critical understanding of the nature of the mass media, the techniques used by the media industry, and the impact of these techniques. The course provides students opportunities to create their own media "products," encouraging critical and creative thinking skills. Course components include: media literacy, media analysis and media production.

Course Title: Journalism (Grades 10, 11 & 12)
Course Credits & Duration: 1 credit full year

Description:

An elective for sophomores, juniors and seniors, journalism offers an introduction to journalistic writing techniques, journalism history, and an overview of the mass media. Students will write news, editorials, features, sports articles and reviews and will contribute to the publication of The Bromfield Mirror, the school newspaper, and other school publications.

Reading selections may include: Journalism Today
 The Boston Globe
 The New York Times
 Newsweek

Prerequisites: **Recommendation of English teacher**

Course Title: **Technical Theater (Grades 9 - 12)**
Course Credits & Duration: **1 credit full year**

Description:

An elective for students in grades 9-12, this course can only be taken in addition to a regular English class. The course features the study of technical theater including set, lighting, and costume design with a theater history component designed to introduce students to period research. Members of this class will become an integral part of all presentations of the Drama Society, producing all the technical elements of the productions. Major projects are required each quarter, including set, lighting, costume design and theatre history research reports.

Textbook title: No formal text

Prerequisites: **none**

Course Title: **Acting Workshop (Grades 9 - 12)**
Course Credits & Duration: **1 credit full year**

Description:

An elective for students in grades 9-12, this course can only be taken in addition to a regular English class. This course features the study of acting with an added focus on public speaking and interviewing skills. Students will also study improvisation, voice, and diction as well as physical skills. Major projects are required each quarter and include both written reports and presentational work such as monologues, dialogues, improvisational scenes and oral reports.

Textbook title: No formal text

Prerequisites: **none**

Course Title: **Advanced Acting Workshop (Grades 10 - 12)**
Course Credits & Duration: **1 credit full year**

Description:

An elective for students in grades 10 – 12, this course can only be taken in addition to a regular English class. Advanced Acting Workshop continues the theatrical skills focus of Acting Workshop with scene study work as the major component. The actor/student will learn to apply the skills and tools acquired

during the basic course to partner and ensemble work. In addition, a study of 20th century acting methods (Stanislavsky, Adler, Strasberg, Meisner) will be treated, along with script writing.

Analytical work, both in written and performance format will be required each quarter.

Textbook title: No formal text

Prerequisites: Acting Workshop or instructor permission

FINE AND PERFORMING ARTS



The high school art program offers a wide range of art electives for students wishing to explore a variety of art forms and to develop art skills. It also caters to the serious art student considering further art education. For the student taking art for the first time in high school, Art Foundations, Studio Art I & 2, and Clay, are introductory courses. For the student ready to prepare for a possible career in art, the following sequence is recommended: Art Foundations, Studio Art I, Studio Art II, and Independent Study in

Art.

Course Title: **Art Foundations (Grades 9 - 12)**
Course Credits & Durations: **½ - 1 credit** **half year/full year**

Description:

This course serves as an effective introduction to all the art electives offered at Bromfield. It also offers a variety of art techniques for the student who wants to experience a taste of art. Students will be given the opportunity to explore and experiment with a wide range of materials including paint, and clay. Basic elements and principles of design will be introduced through the art techniques of Drawing, Painting, Printmaking, 3D Design and Clay.

Course Title: **Studio Art I (Grades 9 - 12)**
Course Credits & Durations: **1 credit** **full year**

Description:

This course is designed to provide students with basic skills in drawing, painting and printmaking. Students will focus on a variety of art techniques that will reinforce skills needed to improve observational and imaginative design. Art materials will include pencil, charcoal, watercolor and acrylic paint. A daily sketchbook is required and will be utilized for class notes and outside assignments. Art history will enhance student learning and museum field trips will expose students to historical and contemporary art.

Course Title: **Studio Art II (Grades 10 - 12)**
Course Credits & Durations: **1 credit** **full year**

Description:

This course refines and builds upon the drawing, painting and printmaking skills developed in Studio I. Various art techniques will be explored and art history will be used for inspiration and knowledge. Art mediums will include pastels, acrylic, and water-based oil paints. Students will be encouraged to develop their own individual style and to create an electronic portfolio. A daily sketchbook or art journal will be required. Museum field trips will expose students to historical and contemporary art.

Prerequisites: **Studio Art I**

Course Title: **Clay I (Grades 9 - 12)**
Course Credits & Durations: **1 credit** **full year**

Description:

This course is designed for students with a strong interest in creating three-dimensional forms. It

introduces students to all clay techniques, from hand building (slab, coil, and pinch) to wheel thrown forms. Students will learn how to form slab and coil pots and how to throw basic forms such as bowls, cylinders and plates. Decorative clay and glaze techniques will be explored.

Course Title: Clay II (Grades 10 - 12)
Course Credits & Durations: 1 credit full year

A more advanced course in ceramic techniques with a strong emphasis on developing wheel skills or a combination of hand and wheel skills. Projects will encourage individualized solutions and personal styles. Glaze development and professional finishes will be emphasized. Students will learn to stack and fire an electric kiln. They will also have the opportunity to experiment with a variety of kiln firings, earthenware, sawdust and Raku. Students will study historical and contemporary ceramics for inspiration.

Prerequisites: Clay I

Course Title: Art Concentration/Independent Study (Grades 11 - 12)
Course Credits & Durations: 1 credit full year

Description:

A course of study designed to challenge the student who is considering an education in the arts beyond the high school level. The main focus is on developing problems that require students to think creatively, exercise technical excellence, sharpen observational skills, and to work independently to express oneself both visually and verbally. Students will create a body of work based on a theme and will develop their own personal style. A focus of this study is preparation of a college portfolio.

Prerequisites: Studio Art I & Studio Art II and instructor approval

DIGITAL ART COURSES

Course Title: Computer Graphics (Grades 9 - 12)
Course Credits & Duration: 1 credit full year

Description:

This design course is project based with individual instruction.

Emphasis will be on developing skills necessary for the comfortable and effective use of the computer to create art. Students will use the basics of color and composition theory to create fine art, magazine layouts, advertisements, and desktop publishing projects. Software will include Adobe Illustrator and Adobe Photoshop. Students will also have the opportunity to integrate projects from other courses into Computer Graphics projects.

Grading will concentrate on effort and not artistic ability.



Prerequisites: none

Course Title: Flash Animation/Web Design (Grades 9 - 12)

Course Credits & Duration: 1 credit full year

Description:

This art course is project based with individual instruction.

In this course students use Adobe Flash, Photoshop, and Illustrator and to design web pages and to create graphics and animations for web page design, as well as free standing animations.

The focus of this class is on the design elements of shape, color, texture, typography, and images as they are applied to web pages (not just bells and whistles!). Students will work on projects that integrate elements such as buttons, navigation bars, and background images as well as animation to communicate creative visual information.

Grading will concentrate on effort and not artistic ability.

Prerequisites: Computer Graphics or Instructor's Permission

Course Title: CADD (Computer Aided Drafting and Design) (Grades 9 - 12)

Course Credits & Duration: ½ - 1 credit half year/full year

Description:

This design course is project based. It is an introduction to the basic functions and applications of the PC as a tool of design, emphasis will be on developing skills necessary for the comfortable and effective use of the computer for creating technical and architectural drawings using the software, AutoCAD LT. The focus for the second semester will be on architectural design and will culminate with construction of a scaled model.

Grading will concentrate on effort and not artistic ability.

Prerequisites: none

Course Title: Interior Design (Grades 9 - 12)

Course Credits & Duration: ½ - 1 credit half year/full year

Description:

This art course serves as an introduction to the fundamentals of space planning and decoration of residential interiors. Emphasis will be on design basics, color schemes, furniture styles, fabrics, furniture placement and traffic patterns as well as drawing floor plans and elevations by hand and using AutoCAD Lt 2004.

Grading will concentrate on effort and not artistic ability.

Prerequisites: ½ credit CADD

Course Title: Creative Digital Photography (Grades 9 - 12)

Course Credits & Duration: ½ - 1 credit half year/full year

Description:

This art course is project based with individual instruction.

Students will study digital photographic and editing techniques using Adobe PhotoShop. Topics will include artistic composition, resolution, lighting, printing, mounting and display. Projects will reflect themes and/or artistic techniques.

Grading will concentrate on effort and not artistic ability.

PLEASE NOTE: Students must own, or have access to a digital camera to complete this course of study. This is a homework-oriented class – students will take photos during non-school hours to complete this course.

Prerequisites: none

Music

Course Title: Wind Ensemble (Grades 9 - 12)
Course Credits & Duration: ½ credit full year –every other day



Description:

Students in Wind Ensemble will rehearse and perform wind ensemble/concert band music of various styles. This group is intended for students in grades 9-12, but may be open to middle school students with the permission of the instructor. Rehearsals may be scheduled before and after school. Participation in the Fall, Holiday, and Spring Concerts is required of all members. Members of the Wind Ensemble have the opportunity to audition for the Central Massachusetts Senior District Festival, the New England Music Festival, and the Massachusetts All-State Festival.

Course Title: Concert Choir (Grades 9 - 12)
Course Credits & Duration: ½ credit full year –every other day

Description:

Concert Choir is open to all students, grades 9-12. Rehearsals may be scheduled before and after school. Students in Concert Choir will rehearse and perform choral music of various styles. Participation in the Fall, Holiday, and Spring Concerts is required of all members. Members of the Concert Choir have the opportunity to audition for the Central Massachusetts Senior District Music Festival, the New England Music Festival, and the Massachusetts All-State Music Festival.

Course Title: Music Theory and Composition (Grades 9 - 12)
Course Credits & Duration: ½ – 1 credit half year/full year

Description:

Students in the Music Theory and Composition class will learn about the structural and compositional elements of music. This course encompasses a thorough study of basic harmony and counterpoint covering scales, modes, major and minor keys, triads, four-part harmony, voice-leading, chord progressions, inversions, figured bass, form, analysis, and five species of counterpoint. Students will work with state-of-the-art music composition software called “Finale 2001.” Students will be required to write compositions of varying lengths covering different musical forms. An emphasis will be placed on using available technology to create original student works.

Course Title: Jazz Styles (Grades 9 - 12)
Course Credits & Duration: Varies

Description:

Students in the Jazz Performing Ensemble will study various Jazz and Rock styles including Dixieland Swing, Bebop, Funk, Gospel, Rhythm and Blues and others. In addition to performance, students in this class will study Jazz History, Theory and Improvisation. The group will meet on Monday evenings from 5:00-6:15 PM. Membership and placement in the group are at the discretion of the instructor. Participation in all performances is required. Members of the Jazz Ensemble have the opportunity to audition for the Central Massachusetts Senior District Music Festival and the Massachusetts All-State Music Festival.

Textbook Title: Jazz History, Styles, and Analysis, 6th Ed. Mark C. Gridley

Co-requisite: Wind Ensemble, Orchestra, or Chorus.

Course Title: String Orchestra (Grades 9 - 12)
Course Credits & Duration: Varies before school

Description:

Open to those people who play, Violin, Viola, Violincello, and String Bass, students in the String Orchestra will rehearse and perform string orchestra from several different artistic periods and cultures. This group is open to students in grades 9-12. Rehearsals may be scheduled before and after school. Participation in Fall, Holiday, and Spring Concerts is required of all members. Members of the String Orchestra have the opportunity to audition for the Central Massachusetts Senior District Music Festival, the New England Music Festival, and the Massachusetts All-State Music Festival.

Course Title: Music, Art and Architecture in Our World
A Listening/Discussion/Analysis Course (Grades 9 - 12)
Course Credits & Duration: ½ - 1 credit half year/full year

Description:

Students in this class will analyze and compare music, visual art, and architecture through time-period examples. An introduction of music and art genres, styles, and time periods will be presented including Medieval, Baroque, Renaissance, Classical, Romantic, 20th and 21st Century music (including variations of rock, jazz, blues and contemporary art-music) along with some non-Western music and art. Students may be required to submit short written assignments demonstrating fundamental understandings of the stylistic elements of various artistic periods. Technology will be used to enhance the student's access to the comparative arts. Students will come away from this class with an overview of the history of Western music, art and architecture and how composers, artists, and architects influenced one another.

Course Title: Improvisation Workshop (Grades 9-12)
Course Credits & Duration: ½ credit semester

Pre-requisite: Jazz Styles

Description:

Improvisation Workshop is a course designed to further develop the participants' abilities in the area of Jazz Improvisation and Jazz Expression. In order to enroll in this class, a student needs to have already taken the Jazz Styles course offered by the Music Department. This is primarily a performance-based music course with an emphasis on improvisation and composition. For further questions, please see Mr. Reynolds.

HEALTH AND PHYSICAL EDUCATION



Students at The Bromfield School will experience the concept of wellness through classroom health education and physical education activities. In conjunction with the Harvard Education plan, students will demonstrate the knowledge and skills necessary for a healthy, physically active, and socially responsible lifestyle.

Course Title: **Health/Physical Education (Grades 9 - 12)**
Course Credits & Duration: **1/2 - 1 credit** **half year/full year**

Description:

High School students are required to take two years of Physical Education. At the high school level, students usually get to choose their activity based on the teacher, student interest, and the season. This course will review and introduce skills and strategies that are needed to participate in team and individual sports. Some possible activities include: flag football, soccer, Ultimate Frisbee, volleyball, basketball, tennis, badminton, golf, and softball. A unit will be given to all students where he/she will choose aerobics or the weight room. High school students are required to take a final exam at the end of the year that is based on rules, skills, and strategies.

Course Title: **Emergency Medical Technician (EMT) Program**
Course Credits & Duration: **1 credit** **1 year**
(evening and weekend hours)

Description:

Students enrolled in the Emergency Medical Technician Program are scheduled for 135 hours of classes and receive a full course credit upon successful completion of the program. As part of the curriculum, students will acquire first aid certification and follow a rigorous schedule of topics including the human body, general pharmacology, respiratory and cardiovascular emergencies, disease-related medical conditions, environmental and behavioral emergencies, musculoskeletal care, soft tissue injuries, trauma and infant and child trauma. Additionally, students, 16 years of age and older, will complete a probationary period of ambulance observation.

MATHEMATICS



The Mathematics Department sets as a priority the ability to apply mathematics to practical situations. Mathematical concepts and mathematical computation are also stressed. Our courses are in alignment with the Massachusetts Mathematics Curriculum Frameworks and the standards of the National Council of Teachers of Mathematics, and ultimately prepare students to take college entrance examinations given at the high school level. Three years of high school mathematics (Algebra 1, Geometry, and Algebra 2) are presently required for admission into Massachusetts State Colleges/Universities. Students contemplating admission into private colleges should check individual college requirements.

Course Title: **Integrated Mathematics Part I:
(Algebra 1, Geometry, and Statistics)**

Course Credits & Duration: **1 credit** **full year**

Description:

This is the first course in a three-year college preparatory sequence that weaves together algebra, geometry, statistics, number sense and logic. The course reinforces the connections that exist between algebra and geometry while developing problem-solving skills. Completion of the three year sequence will prepare students to take the new SAT I Reasoning Test in the spring of their junior year. Specific topics to be studied generally include: integers and expressions, decimals, greatest common factors, scientific notation, rules of exponents, rational numbers and expressions, ratios, proportions and percents, equations and inequalities, graphing in the coordinate plane, polynomials and factoring, algebraic word problems, points, lines and angles, polygons, inductive/deductive reasoning, perimeter and circumference, area and volume, right triangles, slope, introductory transformational geometry as well as selected topics in probability and statistics.

Textbook Title: Math Matters, Book 1, Lynch & Olmstead, 1998 edition, National Textbook Co.

Prerequisites: **Successful completion of Pre-Algebra 8 and recommendation of the current mathematics teacher**

Course Title: **Integrated Mathematics Part II:
(Algebra 1, Geometry, and Statistics)**

Course Credits & Duration: **1 credit** **full year**

Description:

This is the second course in a three-year college preparatory sequence, which weaves together algebra, geometry, statistics, number sense and logic. The course reinforces the connections, which exist between algebra and geometry while developing problem-solving skills. Completion of the three year sequence will prepare students to take the new SAT I Reasoning Test in the spring of their junior year. Specific topics to be studied generally include: mathematics and number sense, real numbers and algebraic expressions, reasoning in geometry, statistics, solving equations and inequalities, using formulas in geometry, polynomials, graphing functions, slope and systems, ratio, proportion and variation, transformations, probability, logic and sets, and an introduction to trigonometry.

Textbook Title: Math Matters, Book 2, Lynch & Olmstead, 1998 edition, National Textbook Co.

Prerequisites: C or better in Integrated Math Part I and recommendation of the current mathematics teacher

Course Title: Integrated Mathematics Part III:
(Algebra 1, Geometry, and Statistics)

Course Credits & Duration: 1 credit full year

Description:

This is the third course in a three-year college preparatory sequence that weaves together algebra, geometry, statistics, number sense and logic. The course reinforces the connections that exist between algebra and geometry while developing problem-solving skills. Completion of the three year sequence will prepare students to take the new SAT I Reasoning Test in the spring of the junior year.

Specific topics to be studied generally include: the language of mathematics, functions, using the language of mathematics, reasoning in geometry, triangles, quadrilaterals and other polygons, measurement, slope and systems of equations, similar triangles, transformations in the coordinate plane, probability and statistics, right angles and circles, polynomials, quadratic equations, quadratic relations (circles and parabolas) and introductory trigonometry. This course is in alignment with the new SAT.

Textbook Title: Math Matters, Book 3, Lynch & Olmstead, 1998 edition, National Textbook Co.

Prerequisites: C or better in Integrated Math Part II and recommendation of the current mathematics teacher

Course Title: Algebra I

Course Credits & Duration: 1 credit full year

Description:

This college preparatory course is designed for 9th grade students who could be expected to successfully master the content of a challenging first year Algebra course.

The course provides students with an opportunity to master algebraic techniques and to investigate the conceptual bases that underlie and justify these techniques. The course work stresses the structure of Algebra as well as the development of manipulative skills. Topics include variables, axiomatic systems, linear equations and inequalities, polynomials, algebraic systems, functions, graphing, and quadratic equations. Probability and statistics and geometry will be integrated throughout the course.

Textbook Titles: Algebra Structure and Method Book 1, 1994 edition, Brown, Dolciani, Sorgenfrey, & Cole, McDougal Littell.

Prerequisites: C or better in Pre-Algebra 8 and recommendation of the current mathematics teacher

Course Title: Algebra II

Course Credits & Duration: 1 credit full year

Description:

A working knowledge of Algebra I including the logical structure of the natural, whole, integral, rational, and real number systems, as well as relative dexterity in the manipulation of algebraic expressions is expected of students enrolling in this course. The course emphasizes applications of Algebra to advance students in their study of more sophisticated topics.

Topics to be reviewed and expanded upon include: axiomatic systems, systems of linear equations, polynomial equations and factoring, rational expressions, relations, and functions. New topics to be introduced include: determinants, quadratic relations and systems, conic sections, the complex number system, exponential functions, and logarithms. Geometry and probability and statistics will be integrated throughout the course.

Textbook Titles: Algebra 2 and Trigonometry, 1992 edition, Dolciani, Graham, Swanson & Sharron, Houghton Mifflin Company.

Prerequisites: **C or better in Algebra I and Geometry or C or better in Integrated Math Parts I, II, and III, AND in either case, recommendation of the current mathematics teacher**

Course Title: **Algebra II (Honors)**
Course Credits & Duration: **1 credit** **full year**

Description:

Students enrolling in this 9th grade course should possess a thorough understanding of Algebra I. Mastery of the logical structure of the natural, whole, integral, rational, and real number systems, as well as dexterity in the manipulation of algebraic expressions is expected. The course emphasizes an analytical and abstract approach to algebra. Application of this approach is used as a means of advancing students to the study of more sophisticated topics.

Topics to be reviewed briefly and expanded upon include: axiomatic systems, systems of linear equations, polynomials and factoring, rational expressions, relations and functions.

New topics to be discussed in depth include: quadratic relations and systems, conic sections, the complex number system, exponential functions, and logarithms. Probability and statistics and geometry will be integrated throughout the course.

Textbook Titles: Algebra 2 and Trigonometry: Structure and Method, Book 2, 1994 edition, Dolciani, McDougal Littell.

Prerequisites: **B or better in Algebra I (Honors) and recommendation of the current mathematics teacher**

Course Title: **Geometry**
Course Credits & Duration: **1 credit** **full year**

Description:

This 10th grade course provides students with the opportunity to utilize inductive and deductive reasoning in the study of geometry as a mathematical system. The course relies heavily upon each student's background in Algebra I. Students should be able to solve linear equations, understand quadratic functions, and work with radical expressions. The course includes the study of geometric elements and there is a **strong emphasis on the unification of algebra and geometry**. Probability and statistics will also be reviewed as part of this course.

Specific topics to be studied include: Elements of Geometry, Inductive/Deductive Reasoning, The Nature of Proof, Angle Relationships, Parallel and/or Perpendicular Lines and Planes, Congruent and Similar Polygons, The Geometry of the Right Triangle, Introductory Trigonometry, The Geometry of the Circle, Methods of Coordinate Geometry, and Transformational Geometry.

Textbook Title: Geometry by Jurgensen, Brown and Jurgensen, 1994 edition,

Houghton Mifflin.

Prerequisites: **C or better in Algebra I and recommendation of the current mathematics teacher**

Course Title: **Geometry Honors**
Course Credits & Duration: **1 credit** **full year**

Description:

Study of the structure of geometry as a mathematical system provides students with an opportunity to utilize both inductive and deductive reasoning processes. Geometry deals with abstract concepts and is highly analytical. This 10th grade course demands a thorough knowledge of the concepts learned in Algebra II (H). Students should be able to solve linear and quadratic equations and be familiar with the concept of a radical expression. The course includes the study of geometric elements and geometric systems. The nature of proof is integrated throughout the course, and there is a strong emphasis on the unification of algebra and geometry. Probability and statistics will also be reviewed as part of this course.

Specific topics to be studied include: Elements of Geometry, Inductive/Deductive Reasoning, The Nature of Proof, Angle Relationships, Parallel and/or Perpendicular Lines and Planes, Congruent and Similar Polygons, The Geometry of the Right Triangle, Introductory Trigonometry, The Geometry of the Circle, Methods of Coordinate Geometry, and Transformational Geometry.

Textbook Title: Geometry by Jurgensen, Brown and Jurgensen, 1994 edition, Houghton Mifflin.

Prerequisites: **B or better in Algebra II (Honors) and recommendation of the current mathematics teacher**

Course Title: **Trigonometry**
Course Credits & Duration: **1/2 credit** **1 semester**

Description:

This course should be taken prior to Analysis and is intended to prepare students for the study of calculus. It is designed for qualified juniors and seniors and provides an excellent opportunity for students to examine the behavior of different types of functions. In addition, the logical sequence of trigonometric problems helps students to understand the structure of advanced mathematics.

Topics include: Circular Functions, Graphs of Circular Functions, Trigonometric Functions, Angle Measure, Properties of Circular and Trigonometric Functions, Inverse Trigonometric Functions, and Solving Triangles.

Textbook Title: Trigonometry by Larson, 7th edition, Houghton Mifflin.

Prerequisites: **C or better in Algebra II and recommendation of the current mathematics teacher**

Course Title: **Analysis**
Course Credits & Duration: **1/2 credit** **1 semester**

Description:

This course follows Trigonometry and is intended to prepare students for the study of calculus. It is expected that a mastery of algebra, geometry and trigonometry has been attained prior to the election of this course.

Topics include: Sequences and Series, Relations and Functions, Limits and Continuity, an Introduction to Derivatives of Polynomial Functions, Graphing of Polynomial Functions, and Exponential and Logarithmic Functions.

Textbook Title: Introductory Analysis, 1991 edition, Dolciani, Houghton Mifflin.

Prerequisites: **C or better in Trigonometry and recommendation of the current mathematics teacher**

Course Title: **Pre-Calculus Honors**
Course Credit & Duration: **1 credit** **full year**

Description:

This course is sequential to Geometry (Honors). A solid mastery of algebra and geometry is expected since the concepts studied in this course will be both complex and abstract. As the title implies, this **rigorous** course will prepare students for the study of Advanced Placement Calculus.

Topics to be analyzed are: trigonometric functions, circular functions, inverse circular functions, properties of trigonometric functions, sinusoids, the complex number system, sequences and series, infinite series, limits, polynomial functions, inductive proof, exponential and logarithmic functions, differential calculus, and additional topics as time allows. The study of differential calculus will be extensive. As this is an honors course, both prerequisites should be taken at the *honors* level.

Textbook Title: Introductory Analysis, 1991 edition, Dolciani, Houghton Mifflin.

Prerequisites: **B or better in both Algebra II (Honors) and Geometry (Honors) and recommendation of the current mathematics teacher. A grade of B+ or better in both pre-requisite courses is actually a better indicator of potential success in this course.**

Course Title: **Calculus**
Course Credits & Duration: **1 credit** **full year**

Description:

Calculus is offered to college bound students who have demonstrated successful mastery of the recommended mathematics sequence of Algebra I, Algebra II, Geometry, Trigonometry and Analysis or Pre-Calculus.

The course provides students with experience in the methods of differential and integral calculus. The field of inquiry includes: topics of analysis, differentiation, applications of differentiation, integration, applications of integration, and logarithmic and exponential functions. Additional topics will be included as time permits.

Textbook Title: Calculus of a Single Variable, 5th edition, Larson, Heath.

Prerequisites: **C or better in Analysis or Pre-Calculus and recommendation**

of the current mathematics teacher

Course Title: Advanced Placement Calculus
Course Credits & Duration: 1 credit full year

Description:

The study of calculus includes both differential and integral topics. This course is analytical in nature and requires a background in algebra, geometry, and pre-calculus. Students will be introduced to the methods of differentiation, the techniques of differentiation, and the applications of differentiation. As a part of this aspect of the course, students will become familiar with the concepts of limits, functions, and continuity. The integration portion of the course will explore methods and techniques of integration as well as applications of integration. In addition, students will be required to use a TI-83 or T1-84 graphing calculator in this course.

Topics include: Limits and Continuity, Inverse Functions, Exponential Functions, Logarithmic Functions, Differentiation, Techniques of Differentiation, Applications of Differentiation, Integration, Techniques of Integration, and Applications of Integration. Additional topics will be presented as time allows. The course will make heavy use of previously released AP Calculus Exam materials.

Textbook Titles: Calculus, Larson, Hostetler & Edwards, 8th edition, 2006, Houghton Mifflin Company, Inc.
AP Calculus Exam Workbook by The Princeton Review, 2010.

Prerequisites: **B+ or better in Pre-Calculus and recommendation of the current mathematics teacher**

Course Title: Advanced Placement Statistics
Course Credits & Duration: 1 credit 1 Year

Description:

The Curriculum content is divided into four major themes:

- (1) planning - collecting data, organizing data, and representing the collection in tabular and graphic forms.
- (2) probability - the tool used for anticipating what the distribution of the data should look like for a given model.
- (3) exploratory analysis - computing various measures (statistics) to identify characteristics of the distribution of data.
- (4) inference - drawing conclusions about a particular collection or collections of data.

This is a challenging course that is quite valuable given that virtually all college students will be required to take a statistics course at some time in their academic career. The course will make heavy use of previously released AP Statistics Exam materials. Students will be required to use a TI-83 or T1-84 graphing calculator in this course.

Textbook Titles: The Practice of Statistics, Yates, Moore & Starnes, 3rd edition, 2003, W.H. Freeman and Company.
How to Prepare for the AP Statistics Exam, 4th edition, Barrons.

Prerequisites: **B+ or better in Pre-Calculus or B+ or better in Algebra II**

(Honors) and recommendation of the current mathematics teacher. Senior standing highly recommended. Highly qualified non-seniors may take this course only if space is available.

Course Title: Advanced Placement Calculus BC
Course Credits & Duration: 1 credit full year

This course will prepare students to take the Advanced Placement Calculus BC exam and introduce multivariable calculus as time allows. Topics from AB Calculus will be analyzed, discussed, and reviewed in an expanded fashion. Additional topics to be covered include parametric, polar, and vector functions and the calculus related thereto, advanced techniques of integration, including integration by parts, the method of partial fractions, and trigonometric substitution, improper integrals, advanced applications of L'Hopital's Rule, determination of the length of a curve, work, slope fields, solving differential equations including those of a logistic nature, Euler's method, advanced determinations of volume, and polynomial approximations and series including general concepts of series, series of constants, and Taylor and Maclaurin series. The course will make heavy use of previously released AP Calculus Exam materials. This course is offered when possible.

Textbook Titles: Calculus, Larson, Hostetler & Edwards, 8th edition, 2006, Houghton Mifflin Company, Inc.
AP Calculus Exam Workbook by The Princeton Review, 2010.

Prerequisites: **Recommendation of the current mathematics teacher/strong performance in AP Calculus/recommendation of the department leader.**

**Mathematics Sequence
(Suggested Schedule)**

	Honors	College Prep	College Prep (additional version)	College Prep (alternative pace)
Gr 9	Algebra II (H)	Algebra I	Geometry	Integrated Math I
Gr 10	Geometry (H)	Geometry	Algebra II	Integrated Math II
Gr 11	Pre-Calculus (H)*	Algebra II	Trigonometry & Analysis	Integrated Math III
Gr 12	AP Calculus (or Calculus, for those who do not elect AP Calculus course)	Trigonometry & Analysis	Calculus	Algebra II

* If you enroll in Pre-Calculus (H), a switch to Trigonometry & Analysis is not feasible after the first few weeks of the year.

SCIENCE



The Science Department sets as a priority for its science program the development of science literacy across major science disciplines, as well as promotes the development of basic inquiry skills necessary for success in the specialized high school science courses of Biology, Chemistry and Physics. A primary focus is the fact that careful observation and analysis is the root of scientific reasoning. Our course coverage also acknowledges and incorporates quantitative and computational skills of mathematics, the skillful use of written and oral communication skills, the application, immersion, and influence of science and technology on societal issues, and the application of science and technology to the arts. These are equally important aspects of what a scientifically literate person in the third millennium needs to know. Course content, instructional methods and assessment techniques attempt to be consistent with the Massachusetts Curriculum Frameworks and the National Science Education Standards.

Except under special circumstances, the following prerequisites need to be met by the end of the 3rd term of the 8th grade.

Course Title: **Physical Science II**
(PSII or PSII-Honors required of all 9th grade students)

Course Credits & Duration: **1 credit** **full year**

Description:

PSII is a continuation of PSI, focusing on physics topics such as motion (dynamics), Newtonian Mechanics, work, energy, power, waves, sound, heat, light, optics, electricity, magnetism, and others as time permits. Understanding of basic physics content as the foundation of biology and chemistry will be the primary goal of the course. Quantitative data management and analysis (including mathematical, graphical and modeling approaches) will be utilized. Mathematics used will involve basic pre-algebra and algebra skills.

Textbook Title: Foundations of Physical Science, CPO Science

Prerequisites: **PS I**

Course Title: **Physical Science II – Honors**
(PSII or PSII-Honors required of all 9th grade students)

Course Credits & Duration: **1 credit** **full year**

Description:

PSII is a continuation of PSI, focusing on physics topics such as motion (dynamics) in two dimensions, Newtonian Mechanics, waves, sound, heat, light, optics, electricity, magnetism, and others as time permits. Understanding of basic physics content as the foundation of biology and chemistry will be the primary goal of the course. Quantitative data management and analysis (including mathematical, graphical and modeling approaches) will be utilized. Mathematics used in the honors section will involve strong algebra skills and development of trigonometry skills.

Prerequisites: **B+ in Algebra I Honors, and a B+ in 8th grade science with a strong recommendation of the 8th grade science teacher.**

Course Title: **Biology – College Prep**
Course Credits & Duration: **1 credit** **full year**

Description:

Basic traditional concepts in biology will be explored through a combination of laboratory investigations, lectures and various technologies. General themes will be taken from molecular biology, energy usage, epidemiology, genetics, biodiversity, ecology and anatomy / physiology. Instructional strategies will focus more on conceptual approaches and a moderate pace intended to address a variety of student learning styles and standards expected in the Massachusetts Curriculum Frameworks.

Textbook Title: Biology, Miller and Levine, 2004

Prerequisites: **For grade 10: None**

Course Title: **Biology - Honors**
Course Credits & Duration: **1 credit** **full year**

Molecular and traditional concepts in biology will be explored through a combination of laboratory investigations, lectures and various technologies. General themes will be taken from molecular biology, energy usage, epidemiology, genetics, biodiversity, ecology and anatomy / physiology. Instructional strategies will focus more on abstract as well as conceptual approaches at a rapid pace. This course is intended to not only cover standards expected in the MCAS frameworks, but also prepare students for potential advanced studies in biology.

Textbook Title: Biology Concepts & Applications, 6th Edition, Cecie Starr
Supplemental texts: Biological Science, BSCS Blue Version: A Molecular Approach, 6th edition

Prerequisites: **For 10th grade students: B+ average in 9th grade physical science AND a B average in either Algebra II Honors or regular Geometry, with the strong recommendation of their 9th grade science teacher.**

Course Title: **Chemistry - College prep**
Course Credits & Duration: **1 credit** **full year**

Description:

The course presents concepts about the chemical composition of the world and the mathematical nature of relationships in matter. Rigorous attention is given to theories that seek to explain the cause-effect relationships and practical applications of these theories. In addition to atomic theory, topics include phases of matter, the mole concept, stoichiometry, solutions, oxidation-reduction, bonding theories, radioactivity, acids and bases, and selected topics in organic chemistry. The chemistry of specific chemical groups and families is examined through laboratory investigations, lectures, and instructional media. This chemistry course is suited to most students.

Textbook Title: Modern Chemistry, by Davis et al; Holt

Prerequisites: C in Biology and C in Algebra I or Integrated Math II with tenth grade science teacher recommendation

Course Title: Chemistry – Honors
Course Credits & Duration: 1 credit full year

Description:

This demanding course is presented at an accelerated pace and explores chemical problem solving techniques to a deeper level than the traditional chemistry offering. Chemistry is presented as an experimental science, allowing students to learn fundamental concepts by experimentation. Rigorous attention is given to abstract theories and the practical applications of these theories. Topics include energy, the mole concept, atoms and ions, elements and the periodic table, stoichiometry, modern atomic theory, chemical bonding, phases of matter, solutions, acids and bases, organic chemistry, and nuclear chemistry.

Designed for junior and senior students with a good background in previous science courses, the course is also available to tenth grade students who have taken Honors Biology in grade nine and who meet other requisites.

Students who envision a career in science, engineering, or medicine are encouraged to elect this offering. Formal laboratory reports and analysis of laboratory experiments will be an integral part of the course work. Keeping pace with the class and completing written assignments promptly are expected of students who choose honors level chemistry.

Textbook Title: Merrill Chemistry, By Smoot, et.al., Glencoe

Prerequisites: B+ in Biology and B+ in Algebra I with science teacher recommendation

Course Title: Advanced Placement Chemistry
Course Credits & Duration: 1 credit full year

AP Chemistry is designed for juniors and seniors who have demonstrated advanced skills in previous science and math courses and who are interested in pursuing further studies in science, engineering, or medicine. The course is designed to be equivalent to a first-year college course in inorganic chemistry and includes a comprehensive and essential laboratory component, which may require an additional time commitment. Students enrolling in this course must be self-motivated and independent learners. Students will be expected to take the AP examination and may be eligible for college credit for successful completion of this rigorous but rewarding course. Students enrolled in AP Chemistry are strongly encouraged to concurrently enroll in Honors Physics. Ideally, students should take AP Chemistry immediately following a first year chemistry course.

Textbook Titles: Chemistry: The Central Science, 10th edition, Brown, Lemay & Burton (Prentice-Hall)

Prerequisites: B+ in Honors Chemistry OR A- in College Prep Chemistry, and a B+ in Algebra II and science teacher recommendation.

Course Title: Advanced Placement Biology
Course Credits & Duration: 1 credit full year

Description:

This demanding biology program is recommended for juniors who have demonstrated advanced skills in science and significant levels of past academic achievement, who believe their future careers may be in science, engineering or medicine. The curriculum follows a program developed by the College Board

including 12 mandatory laboratory investigations and is parallel in rigor and content to that offered at the introductory college level. Assignments are purposeful, but lengthy and the class pace is rapid. Students are expected to take the standardized final examination and may qualify for a waiver of an introductory biology course upon entry into college.

Textbook Title: Biology, Campbell, Addison Wesley

Prerequisites: **B+ in Honors Chemistry and B+ in Honors Biology with teacher recommendation. A- in College Prep Chemistry and A- in College Prep Biology**

Course Title: **Conceptual Physics**

Course Credits & Duration: **1 credit** **full year**

Description:

Physics is concerned with discovering the universal laws that govern matter, energy, space, and time. Topics include kinematics, Newton's laws of motion, vectors, circular motion, gravity, and three conservation laws: mass energy and momentum. We study the scientific revolution through the work of Copernicus, Tycho, Kepler, Galileo and Newton. We study thermodynamics; wave motion; sound; light electricity and magnetism. At the end of the year we look in to major developments in modern physics, such as Einstein's theory of special relativity, and an introduction to quantum mechanics.

This class incorporates lectures, lab experiments, at-home build projects (e.g. hovercrafts), computer labs and some viewing of science television programs. Each chapter makes use of algebra; a few chapters use basic trigonometry. We focus more on concepts than on detailed problem solving. As such, this course is less mathematically demanding than the honors physics course. This class is designed for seniors. Juniors may be admitted if they meet the prerequisites, a science teacher recommends it, and scheduling demands warrant such a placement.

Textbook Title: Conceptual Physics, Paul G. Hewitt

Prerequisites: **C in Chemistry and C in Algebra II or Integrated Math III and science teacher recommendation.**

Course Title: **Physics - Honors**

Course Credits & Duration: **1 credit** **full year**

Description:

Honors Physics investigates a wide range of physical principles and phenomena including mechanics, electricity and magnetism, thermodynamics, wave theory, sound, light, and electromagnetic radiation. As an honors elective, high levels of self-motivation and intellectual curiosity are expected of all students. Normally a junior or senior level course, the elective is suggested for students completing Honors Chemistry and who are simultaneously taking Calculus. A rigorous approach involving theory, problem solving, laboratory experiments, computer simulations, and interactive multimedia is used. Advanced algebra and basic trigonometry are often used in problem solving. Honors Physics is more mathematically and technically based than Conceptual Physics and includes a balance of text, discussion, laboratory work and demonstration activities. Project work beyond the regular classroom is expected. The College Board SAT II (in Physics) subject test content range is utilized as a standard for this course.

Textbook Title: Physics Principles & Problems, Glencoe Science 2005

Prerequisites: **B- Honors Chemistry or B in Chemistry and B in Pre-Calculus with science teacher recommendation**

Course Title: **Advanced Placement Physics (B)***
Course Credits & Duration **1 credit** **full year**

Description:

AP Physics is a second year physics course structured to provide instruction in each of the five content areas outlined by the College Board for the physics B curriculum. Those five areas are: Newtonian Mechanics, Fluid Mechanics and Thermal Physics, Electricity and Magnetism, Waves and Optics, and Atomic and Nuclear Physics. Since AP Physics is a second year course, incoming students should have had a solid introduction to most of Newtonian Mechanics and Electricity & Magnetism. Using this as a starting point, class begins by going through these two major topic areas in detail to review basic concepts and add more complex ones. The next content area is Fluids and Thermal Physics, followed by Waves and Optics. The course finishes with Atomic and Nuclear Physics. Recommended for students pursuing careers in science and medicine.

Textbook Title: Fundamentals of Physics, by Halliday, Resnick & Walker

Prerequisites: **A in Honors Pre-calculus or B+ in AP Calculus and a strong recommendation from both the current math and science teacher.**

Course Title: **Anatomy and Physiology – College prep**
Course Credits & Duration **1 credit** **full year (Grades 11 & 12)**

This course will run only if student enrollment and staff availability allows.

Description:

Anatomy and Physiology are branches of biology dealing with the structure and function of the human body. This is a laboratory-oriented course, including a cat dissection, which places emphasis on how structure relates to function to maintain health and equilibrium within the body. This course will introduce topics related to careers in health fields such as medicine, nursing, physical therapy and exercise physiology.

Prerequisites: **Biology and Chemistry or by Recommendation of the Department**



SOCIAL STUDIES

The Social Studies Department seeks to enable students to participate intelligently and responsibly in their local and global communities. Emphasis is placed on the development of research, communication, critical thinking, and study skills that will foster civic participation and equip the student for post secondary learning. Three high school credits, including one in U. S. History, are required for graduation.

Course Title: **United States History II (Grade 9)**
Course Credits & Duration: **1 credit full year**

Description:

U.S. History II is designed as a continuation of U.S. History I. In this course, the students will be introduced to the study of U.S. History from the post Civil War period through the 1970's, including the Vietnam War and the Watergate Scandal. In addition, the course will examine major events at the end of the Cold War as well as the Persian Gulf War (1991). Where possible, current events will be tied in as they relate to the historical events being studied. This is a survey class that introduces major topics, focusing on the key issues, people and events. The course will combine extensive text work, note taking, political cartoon analysis, class discussion and class activities. There will be a major research-based project each term. The course is required of all freshmen.

Textbook Titles: American Voices, Carol Berkins, et al (Scott Foresman)

Prerequisites: **none**

Course Title: **World Geography (Grade 10)**
Course Credits & Duration: **1 credit full year**

Description:

This course for sophomores is intended to serve as an overall introduction to the major cultural, economic, historical and physical aspects of the study of world geography today. The major cultural and political regions of the world will be studied including the Middle East, South Asia, East Asia and the Pacific, the Commonwealth of Independent States and former Soviet Republics, and selected regions of Europe, Africa, and Latin America. Themes such as globalization, technology, global health issues, economic disparity, terrorism, and emerging economies will be treated throughout the year. An interdisciplinary, (English/social studies), research project on a global issue will be completed second semester.

Textbook Titles: World Geography, (Prentice Hall)
Varied readings, supplemental units

Prerequisites: **none**

Course Title: **Psychology (Grades 11 & 12)**
Course Credits & Duration: **1 credit full year**

Description:

This course is a general introduction to Psychology, the scientific study of behavior and mental processes. In addition to the study of the history of Psychology, contemporary approaches and methods of research will be examined. Major topics will include: Physiology and Behavior, Sensation and

Perception, States of Consciousness, Learning, Memory, Cognition and Language, Intelligence and Mental Abilities, Human Development, Motivation and Emotion, Personality, Abnormal Behavior, Treatment of Psychological Disorders, and Social Psychology. A major project will be assigned each semester.

Textbook Title: Psychology: An Introduction, Charles Morris, (Prentice Hall)

Prerequisites: none

Course Title: AP Psychology (Grades 11&12)

Course Credits & Duration: 1 credit full year

Description:

The Advanced Placement course in Psychology is designed as an introduction to the systematic and scientific study of the human behavior and mental processes. Major contributions to the field of Psychology over the course of its history will be studied. Throughout the year the focus will involve the differing approaches adopted by psychologists, including the biological, behavioral, cognitive, humanistic, psychodynamic and socio-cultural perspectives. Methods of psychological research will be emphasized in the study of the following topics: Physiology and Behavior, Sensation and Perception, States of Consciousness, Learning, Memory, Cognition and Language, Intelligence and Mental Abilities, Human Development, Motivation and Emotion, Personality, Abnormal Behavior, Treatment of Psychological Disorders, and Social Psychology. A major project will be assigned each semester.

Textbook Title: Psychology, David G. Myers (Worth)

Prerequisites: Minimum B+ average in all of the following courses: prior social studies course, Algebra II, and prior required English course

Course Title: Economics – Honors (Grades 11 & 12)

Course Credits & Duration 1 credit full year

Description:

This course offers an introduction to Micro, Macro, and International economics. It is designed to give students an understanding of the principles of economics that apply to the functions of individual decision- makers, both consumers and producers, within the larger economic system. Both Monetary Policy and The Federal Reserve System, in conjunction with Fiscal Policy and the Role of the Executive and Legislative Branches will be a major component of the course. Fundamental economic concepts such as supply and demand will be used to analyze a market economy. Special emphasis will be placed upon financial markets and institutions. A semester project will be required.

Textbook Title: Foundations of Economics, Robin Bade & Michael Parkin

Prerequisites: B- in World Geography or prior social studies course

Course Title: Criminal Law (Grades 11 & 12)

Course Credits & Duration: 1/2 credit 1st semester

Description:

This course is designed to provide the student with a comprehensive look at America's Criminal Justice System. We will focus on the immense crime problem, both in number and degree of severity that

plagues U.S. society. In conjunction with the above, we will examine the interrelationships of the various parts of the Criminal Justice System.

The course will contain extensive, up-to-date coverage of criminal justice in the U.S. within the five major units of study which include, Introduction to the Criminal Justice System, Entry into the Criminal Justice System, Processing a Criminal Case, Confinement and Corrections, and Juvenile Justice. Of central importance to the course will be the utilization of guest speakers, case studies, legal research papers, and the implementation of moot courts and mock trials.

Textbook Titles: Criminal Justice, Sue Titus Reid,
Annual Edition Criminal Justice, John J. Sullivan &
Joseph L Victor, Editors

Prerequisites: none

Course Title: Civil Law (Grades 11 & 12)
Course Credits & Duration: 1/2 credit 2nd semester

Description:

This course is designed to provide the student with an overall view of Civil Law. We will concentrate on determining a citizen's legal rights and obligations in a variety of common activities. This course will begin with an introduction to Constitutional Law, and progress into private law issues. Topics examined include: The Evolution of Private Law/Criminal Law, The Participation of Citizens, The Contributions of Lawyers, Lawsuits and Civil Suits, and The Role of the Courts.

The course then will conclude with an observation of the discussion within the civil law system which will encompass: Contract and Commercial Law, Tort Law, Property Law, and Corporate/Business Law. Of central importance will be the use of guest speakers, case studies, legal research papers, and the implementation of moot courts and mock trials.

Textbook Title: The Rights of Students, A.C.L.U.

Prerequisites: none

Course Title: Ancient and Medieval History–Honors (Grades 11 & 12)
(Alternates with Modern European History)
Next offered 2010-2011

Course Credits & Duration: 1 credit full year

Description:

This is a survey course in which a number of major trends in the early development of western civilization from the beginning of recorded history to the medieval period are studied. The study of prehistoric man and evolution, the origins of civilization in major river valleys, the Greek and Roman worlds, the rise of Christianity and medieval Europe constitute the Western focal points of the course. Asian civilizations, the Byzantine Empire and its role, forces of Islam, and civilizations in Africa and the Americas are also included. The time frame for this study is four million B.P. to the fifteenth century C.E.

Extensive reading will be a requirement, and a minimum of one project each marking period will be assigned. One term paper and an in-depth book analysis is required. A variety of experiences are provided with an emphasis on art in history, the theater as reflective of society, map making of key ancient empires, music and society, and literature as an insight into society. Higher order thinking skills are stressed and encouraged. This course is offered for those students who are prepared to devote a good

deal of time and energy to a serious study of history.

Textbook Title: The Western Heritage, 7th ed. (Prentice Hall)

Prerequisites: **B- in prior Social Studies course**

Course Title: **Modern European History-Honors (Grades 11 & 12)**
(Alternates years with Ancient and Medieval History)

Course Credits & Duration: **1 credit** **full year**

Description:

This course offers the student an opportunity for a thorough examination of study topics which include the Renaissance and Reformation, development of central governments in Europe, trade and exploration, revolutions, industrialization, nationalism, imperialism, and the growth of technology. The twentieth century is included with focus on two world wars, totalitarianism, socialism, fascism, and democracy. A glance at Asian, African, and Latin American developments which occur as parallel history are injected. The time frame for this study is the fifteenth century to the twentieth century C.E.

Extensive reading will be a requirement, and a minimum of one project each marking period will be assigned. One term paper and an in-depth book analysis is required. A variety of experiences are provided with an emphasis on art in history, the theater as reflective of society, mapmaking of the Treaty of Westphalia, music and society, films and literature as an insight into society. Higher order thinking skills are stressed and encouraged. This course dealing with the study of political, economics, and society development of Europe over the period of the past four centuries is offered for those students who wish to devote a good deal of time and energy to a serious study of history.

Textbook Titles: The Western Heritage, 7th ed. (Prentice Hall)
A Tale of Two Cities, Charles Dickens
All Quiet on the Western Front, Erich Maria Remarque

Prerequisites: **B- in prior Social Studies course**

Course Title **Twentieth Century American History–Honors (Grade 12)**

Course Credits & Duration: **1 credit** **full year**

Description:

This honors level American History course is designed to provide students with a sophisticated understanding of the social, political, cultural, and economic history of the United States from 1900 to the present. The course examines America's industrial development and the growth of an affluent society. Emphasis during the first semester will be placed on the emergence of the U.S. as a major world power in the twentieth century, the forces shaping foreign policy, and the challenges facing America in the post-Cold War period. During the second semester, we will focus on Domestic Policy issues such as Civil Rights, Feminism, Youth and The New Left and Counterculture, and Political Institutions. Extensive reading and research will be required. Term and/or semester projects will be assigned. This course is offered to those students who are prepared to invest a good deal of time and energy to the study of history.

Textbook Titles: Cycles of American History, Arthur M. Schlesinger
The Glory and the Dream, William Manchester
The Twentieth Century: A People's History, Howard Zinn

Prerequisites: **B- in prior Social Studies course**

Course Title **Nineteenth Century U.S. History - Honors
(Grade 11 & 12)**

Course Credits & Duration: **1 credit** **full year**

This course will follow the society, culture, economy and politics of Americans from the formative years of the country in 1800 through becoming a world power at the end of the 19th century. Topics will take account of politics and political development, the Industrial Revolution and labor, reform movements, the west, military development, and international policy. Selected areas of focus will include the following; the presidency of Thomas Jefferson and the Louisiana Purchase, President Jackson and the expanding role of democracy, Manifest Destiny and Slavery, Secession and Civil War, President Lincoln, Reconstruction and westward expansion. Greater understanding of this time period will also be attained through the study of art, music and literature. All students will be required to complete two research projects.

Textbook Titles: The Americans: The National Experience, Daniel Boorstin
Uncle Tom's Cabin, H. B. Stowe
Slavery and Freedom: An Old South, James Oakes
Democracy in America, Alexis de Tocqueville; Richard C. Heffner
The Civil War, Bruce Catton
Dialogues of Plato, (Bantam Classics)

Prerequisites: **B- in prior Social Studies course for honors course**

Course Title: **Shaping History Through Photography and Music:
Cultural History (Grades 10, 11 & 12)**

Course Credits & Duration: 1/2 credit Semester

Description:

Photographs and music present a reflection of the times in which they are made. Pictures and songs have also been responsible for informing, changing public opinion and ultimately changing history. This course will examine well-known photographs that have made a cultural or historical impact and will also study the event shown in detail to arrive at a greater understanding of the impact of photography in a cultural or historical context.

Students will also select, analyze and present photos of specified time periods to the class for discussion. Each era chosen for study will also incorporate the study of music and its function as a reflection of culture. Students will also be expected to make individual selections of music to analyze and present to class. While the main focus of the class will be the Twentieth Century, it will not be limited to region or country. This will be a semester long class and is open to 10th, 11th and 12th grade students.

WORLD LANGUAGES

The World Languages Department sets as a priority the ability to use language for proficient and purposeful communication. Culture is integrated in all aspects of language acquisition in order that students may enjoy being part of a world community functioning in a global economy. Two years of the same high school world language are presently required for grades 9-12 for admission into Massachusetts State Colleges/Universities. Students contemplating admission into private colleges should check individual college requirements.



Grade 9 students should repeat French, grade 8 if they have not met the prerequisite grade of C needed to progress to French II. French, grade 8 is essentially the last tier of French I study. Grade 9 students who successfully repeat this level, will be awarded high school credit for French I.

Course Title	French II	
Course Credits & Duration	1 credit	full year

Description:

French II enhances previously learned skills and emphasizes language proficiency. Computer technology and the francophone world via geography, music and art will complement instruction. Selected short readings expose students to francophone literature. A cultural research project is expected of all students in the target language. Daily homework is assigned. The memorization of vocabulary is an ongoing daily assignment.

Textbook Title: A bord (Glencoe series)

Prerequisites: **C in French, grade 8 or French 1 and the recommendation of current French teacher**

Course Title:	French III	
Course Credits & Duration:	1 credit	full year

Description:

French III continues with the development of skills presented at the previous levels. Increased emphasis is placed on spoken and written communication. The use of the subjunctive is the main grammar focus.

Much time is devoted to reading and discussing the novel, Le Petit Prince, which culminates in a written student project.

Textbook Titles: A bord (Glencoe series)
Le Petit Prince, Antoine de St. Exupéry

Prerequisites: **C in French II and the recommendation of the current French language teacher.**

Course Title:	French IV Honors	
Course Credits & Duration:	1 credit	full year

Description:

Students will continue the review, refinement and further application of skills introduced in previous levels with emphasis devoted to accuracy in communicative proficiency. Course components include authentic francophone literature, music, art, history and geography. Each student will also create and illustrate a children’s story as a class project. All instruction and interaction is in French.

Textbook Title:

En voyage (Glencoe McGraw Hill series)

Readers:

Loulou, Le Géant de Zéralda, Mathieu, Jean de la Lune, Le Petit Garçon Bleu

Prerequisites:

C+ in French III and the recommendation of the current French teacher.

Course Name:

French V Honors / Advanced Placement Language

Course Credit & Duration

1 credit

full year

Description:

This course is the equivalent of an advanced college French course. Emphasis will be on oral skills, literature, composition and grammar. Advanced Placement students will be required to do intensive listening and speaking exercises, write weekly compositions and keep journals. Written and taped assignments are expected of Honors students, but with less frequency. All students are expected to take an active part in classroom discussions. Students electing the course for Advanced Placement credit are expected to take the Advanced Placement Language Test at the end of the course.

Textbook Titles:

Une Fois Pour Toutes

Panaché littéraire

Longman Advanced Placement

Une si longue lettre

Huis clos

Prerequisites:

A.P: B or better in French IV and the recommendation of the current French teacher. Honors: C+ and the recommendation of the current French teacher.

Course Title:

Spanish I

Course Credits & Duration:

1 credit

full year



Description:

This course is designed for grade 9-12 students who did not have the opportunity to begin Spanish in the middle school program or who wish to begin learning a second world language. It should be noted that this program is run at an *accelerated* pace so that the student who successfully completes it will be prepared for Spanish 2 the following year. Two hours of homework will be typically assigned on a weekly basis. The memorization of vocabulary is an on-going daily assignment.

Textbook Title:

Buen Viaje (Glencoe-McGraw Hill)

Prerequisites: None

Grade 9 students should repeat Spanish, grade 8 if they have not met the prerequisite grade of C needed to progress to Spanish II. Spanish, grade 8 is essentially the last tier of Spanish I study. Grade 9 students who successfully repeat this level, will be awarded high school credit for Spanish I.

Course Title: Spanish II
Course Credit & Duration 1 credit full year

Description:

Spanish 2 enhances previously learned skills and emphasizes language proficiency. Computer technology and the Spanish-speaking world via geography, music and art will complement instruction. Selected short readings expose students to Hispanic literature. A cultural research project is expected of all students in the target language. Daily homework is assigned. The memorization of vocabulary is an ongoing daily assignment.

Textbook Title: Buen Viaje-Level 2 (Glencoe-McGrawHill)

Prerequisites: C in Spanish I or Spanish, grade 8 and the recommendation of the current Spanish teacher

Course Title: Spanish III
Course Credit & Duration: 1 credit full year

Description:

Spanish 3 continues to develop the students' mastery of the communicative proficiencies: reading, writing, speaking and listening. This program places strong emphasis on vocabulary acquisition and on the extension of the students' knowledge of the highly complex Spanish verb system.

Textbook Title: Buen Viaje – Level 3 (Glencoe-McGrawHill)

Prerequisites: C in Spanish II and the recommendation of the current Spanish teacher.

Course Title: Spanish IV Honors
Course Credit & Duration: 1 credit full year

Description:

Students will continue the review, refinement and further application of skills introduced in previous levels with emphasis devoted to accuracy in communicative and written proficiencies. Course components include authentic Hispanic literature, music, art, history and geography. Each student will also create and illustrate a children's story as a class project. All instruction and interaction is in Spanish.

Textbook Titles: Avance ! Intermediate Spanish
Listening Comprehension Skills for
intermediate and advanced students
Selection of short stories (T.B.D.)

Prerequisites: C+ in Spanish III and the recommendation of the current

world language teacher.

Course Title: Spanish V Honors / Advanced Placement Language
Course Credit & Duration: 1 credit full year

Description:

This course is the equivalent of an advanced college Spanish course. Stress will be on the oral skills, literature, composition and grammar. Advanced Placement students will be required to do intensive listening and speaking exercises, write weekly compositions and keep journals. Written and taped assignments are expected of Honors students, but with less frequency. All students are expected to take an active part in classroom discussions. Students electing the course for Advanced Placement credit are expected to take the Advanced Placement Language Test at the end of the course.

Textbook Titles:

Abriendo paso: Lectura (Heinle & Heinle)
Abriendo paso: Gramática
Advanced Placement Spanish (Jose Diaz)
Novel: El Colonel no tiene quien le escriba
Play: Bodas de Sangre

Prerequisites:

AP: B or better in Spanish IV and recommendation of the current world language teacher. Honors: C+ and the recommendation of the current Spanish teacher.

Online Courses Available Through Virtual High School

The Bromfield School is pleased to announce that our students will have the opportunity to sign up for online courses through Virtual High School for the fall of the 2008-09 school year. Working with the VHS program will allow us to offer a wider selection of elective courses to our students. We should have approximately thirty spaces for students to sign up for VHS electives during the 2008-09 school year so spaces are limited. Our participation in VHS will allow our students to access educational experiences they would otherwise not have available to them at The Bromfield School. It also allows our students to create educational programs that are relevant and aligned with their interests. Due to the limited number of spots available we are asking interested students to fill out this VHS application. Application decisions will be based upon number of requests, grade level of applicant, rationale, student course load, and course availability at The Bromfield School. I encourage all interested students to fill out this application and visit the VHS website listed below

VHS Application 2008-2009

Name _____
Grade _____
Course _____
Parental Approval _____
Department Leader Approval _____
Counselor _____
Principal _____

Please write a rationale for selecting this course

Please visit the Virtual High School Website at www.goVHS.org for the course catalog