## BELMONT HIGH SCHOOL



## PROGRAM OF STUDIES 2009-2010

Enrollment patterns and budget decisions may affect the availability of courses.
The inclusion of a course in the Program of Studies does not guarantee that a particular course will be scheduled next year.

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くさい。

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## Korean

> 이 문서나 기타 학교 인쇄물을 익는데 도움이 필요하신다면, 건물 책임자에게 부탁하여 번역 도움을 받으십시오.

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## Important Phone Numbers

| Main Office | $993-5901$ |  |  |
| :--- | ---: | :--- | :--- |
| Michael Harvey, Principal | Guidance | $993-5910$ |  |
| Daniel Richards, Asst. Principal | LABBB | $489-4829$ |  |
| Layne Millington, Asst. Principal | Mathematics | $993-5960$ |  |
| Art | $993-5990$ | METCO | $993-5850$ |
| Athletic Office | $993-5931$ | Music | $993-5992$ |
| Attendance | $993-5908$ | Nurse | $993-5929$ |
| Community Service | $993-5981$ | Science | $993-5970$ |
| English | $993-5940$ | Social Studies | $993-5980$ |
| Foreign Language | $993-5950$ | Special Education | $993-5920$ |
|  |  | Technology | $993-5450$ |

# Belmont High School Mission Statement 

Belmont High School, in partnership with our community, provides outstanding educational opportunities in order for students to reach their intellectual, creative, personal, civic, and social potentials. The school and the community strive to create and maintain a safe, supportive environment in which all students feel valued and respected as they become successful, productive citizens in a diverse and changing world.

## Civic, Social, and Academic Learning Expectations

Responsible Citizens observe policies and expectations for behavior. They are able to work cooperatively, collaboratively, and independently as appropriate to a learning task. They take steps to achieve personal, academic, and career goals. They are able to make informed decisions concerning health, diet, and exercise in order to maintain a healthy lifestyle. They participate in their school and community in order to understand and preserve our democratic process, our culture, and our environment. They consider other points of view in order to make ethical decision and to live productively in a diverse society.

Critical Thinkers and Problem Solvers read, comprehend, synthesize, and reflect on content area materials and scholarly resources. They have organizational and study skills with which to accomplish their work. They collect and evaluate data to identify patterns, make inferences, and draw conclusions. They manipulate, combine, and apply formulae. They predict reasonable results using estimation and conceptual knowledge. They develop and test hypotheses, drawing conclusions from experiments, data, and research. They discuss, analyze, and evaluate in light of historical precedent, current events, and civic responsibilities. They observe, analyze, and present ideas, feelings, and beliefs about cultures and societies.

Researchers work with a variety of print resources and technological applications to increase learning. Researchers are able to identify and apply technology to an academic task. They use technology responsibly to obtain, organize, and communicate information and to solve problems. They are able to evaluate the accuracy, usefulness, and appropriateness of information resources

Effective Communicators are able to read, write, and speak standard English as well as listen to understand, and communicate in another language. They participate in discussions by listening, asking questions, and responding. They design and compose work for a variety of audiences and purposes. They use the vocabulary and symbolic language specific to content areas such as math and music. They use a repertoire of skills and techniques to create and interpret works in a variety of media such as the fine and performing arts as well as film and other forms of communication.

Learn * Think * Create * Serve

## Notice of Discrimination

The Belmont Public School System hereby makes notice that it shall not discriminate on the basis of race, color, religion, national origin, age, gender, sexual orientation or disability in admission to, access to and treatment in its programs and activities or in employment. The following person has been designated to handle inquiries regarding our nondiscrimination policy:

Mr. Denis Fitzpatrick, Assistant Superintendent for Curriculum and Instruction Belmont Public Schools
644 Pleasant Street Belmont, MA 02478 617-993-5410

The Belmont School Department complies fully in the implementation of Chapter 622 of the Acts of 1971 of the General Laws of the Commonwealth, Title IX of the Education Amendments of 1972, Title VI of the Civil Rights Act of 1964, and Section 504 of the Rehabilitation Act of 1964.
The following people have been designated to handle inquiries regarding these laws and may be contacted at 644 Pleasant Street, Belmont, MA 02478.

Coordinator of Title VI and Title IX: Mr. Denis Fitzpatrick, Assistant Superintendent 617-993-5410
Coordinator of Section 504 for Students: Mr. Ken Kramer, Interim Director of Student Services 617-993-5440
Coordinator of Section 504 for Employment:
Ms. Julia S. Silverman, Human Resources Manager 617-993-5425

## Requirements for Graduation

All students must enroll in at least six full-time courses each semester of every year. One hundred credits are required to receive a diploma from Belmont High School. In addition, students must fulfill the following requirements:

| English - 4 years |  |
| :--- | :--- |
| $\quad$ (including Senior Thesis) | 21 credits |
| Social Studies -3 years | 15 credits |
| Mathematics -4 years | 20 credits |
| Science - 4 years | 24 credits |
| Fine and Performing Arts - 1 year | 5 credits |
| Foreign Language - 2 years | 10 credits |
| Physical Education \& Health - 4 years (2 credits per year) | 8 credits |

- Grade 9: Wellness (I), required
- Grades 10-12: Wellness (II) and/or Physical Education options

Community Service - 40 Hours
All students must take and pass the Massachusetts Comprehensive Assessment System (MCAS) tests in English Language Arts, Mathematics and Science in order to qualify for a high school diploma. (Science is scheduled as a graduation requirement by the Massachusetts Department of Education in 2010.) Students take the Math and English test in the spring of their sophomore year and Science in the spring of their Freshman year. Retests are administered at least twice a year, in November and March.

All students new to the state of Massachusetts should contact their guidance counselor as soon as possible to be sure they are signed up to take the MCAS tests at the next appropriate administration.

## Planning Your High School Program

Each student is assigned to a guidance counselor who is the best person to consult when planning a high school program. Work with him or her and your parents to build your four year high school program carefully so that you will meet college and/or job requirements and also take advantage of the wide range of course offerings at Belmont High School. It is helpful to draw up a tentative four-year program before or during the ninth grade. By doing so, you can see what choices you might have to make and schedule your courses to fit your program. Many courses are sequential, so it is necessary to plan ahead.

## Preparation for College

Most colleges suggest that you take a challenging and well-rounded academic program. You should check college catalogues for specific requirements.

An important rule to follow is: keep all your options open - if you are uncertain about your long range goals, follow a broad, general program of studies which will prepare you for almost any college major. Be sure to check graduation requirements for each discipline and remember you will need 100 credits to graduate and you must enroll in six courses each semester.

## Course Selection Process

The course selection process begins in the spring. Students are encouraged to choose courses carefully. Teachers will generally recommend a course level College Prep (CP), Honors (H), Advance Placement (AP) for each student for the next year. If a student or parent/guardian has questions about a teacher's recommendation, he/she should consult with the teacher. The teacher's course level recommendation will become the student's course level placement unless the student or parent/guardians initiates a course placement review process. For information about changing course selections (either before or after the initial submission has been completed), see the next three sections below. Students will not be allowed to make course changes after the stated deadline.

## Course Placement Review Process

If a student believes he/she would like to change course levels, the first step is to discuss his/her concerns with the classroom teacher. Students wishing to override a teacher's recommendation regarding course selection for next year, or wishing to change levels in a course once the school year has begun must complete a Course Level Change Request Form, available in the guidance office. Once completed and signed by a parent or guardian, the form should be turned in to the Guidance Office, which will forward it to the Department Director. The Department Director may contact the parent/guardian, depending on the nature of the request. The form must also be signed by the guidance counselor.

If a student overrides a teacher's level placement recommendation, s/he will be expected to remain at the selected level for at least one academic quarter. A level change may be made earlier, but only with the approval of the Department Director and an administrator.

## Course Level Change

- Level changes are only allowed prior to the deadline published as part of the course selection process. (This is not true if the student is placed into a course that was not originally recommended by his/her teacher during the course selection process. See above.) Level changes are permitted only with the consent of a building administrator and the appropriate Department Director.
- If a student starts a course at one level, and then decides to change levels (e.g. from H to CP ). After the course level change has been made, any course marks that the student earned in the course into which $\mathrm{s} / \mathrm{he}$ was initially placed will remain unchanged. Thus:

1. If a student began the year in an honors course and received a " $C$ " first quarter in that course and then transferred to a CP section, the grade of "C" would remain on the student's transcript (followed by a "W" to indicate that the student has subsequently withdrawn from the course with a passing grade). The " C " from the honors course would be averaged with the remaining quarters' marks to determine the final CP course grade. For the purpose of weighting the GPA, the level in which the student finishes the course will be employed.
2. If a student changed course levels before the first quarter grades had been calculated, his or her grades from the initial course would be averaged into his/hers new course without alteration.

## Course Withdrawal

A student may withdraw from a course with no penalty and no record of his/her presence in the course if he/she does so within the first four weeks of a full year course or the first two weeks of a semester course. If a student withdraws
after this time, a "W" will be placed on the transcript. Students can not enter a new course after the first two weeks of the start of school in September.

## Independent Study

Independent Study is a unique program that Belmont High School offers for 10th, 11th, and 12th grade students. Sophomores and juniors are limited to one independent study course per semester. Seniors may undertake up to two independent study courses per semester. Ninth graders may not enroll in Independent Study.

This program broadens the curriculum by offering students an opportunity to pursue an area of academic interest under the guidance of an advisor who has special skills in that field. Independent Study projects may not replicate or replace the existing curriculum at Belmont High School. Specialized topics contained within existing courses may be pursued at the advanced level after the student has taken the appropriate prerequisites.

It is important that students understand the workload for an independent study course is equal to a course offered at the high school. Students take responsibility for their own learning in an independent study course.

## Proposal Submission Process Your proposal

- An Independent Study Proposal form must be completed by the student and clearly indicate the topic, the process for learning, the times and places of learning, and specific activities that will be used for evaluation of the Independent Study course. All of these decisions should be worked out between the student and his/her advisor.


## Responsibilities

- The following people must approve the student's proposal for independent study (in this order): Guidance Counselor, In-School Advisor (and Out-of-School Advisor, if applicable), and Parent/Guardian, Curriculum Director.


## Submission of Your Proposal

- Independent Study proposals should be submitted in the semester prior to the semester for which they are proposed. The final deadline for full year and first semester Independent Study proposals is the first Monday in the month of June. The final deadline for second semester Independent Study proposals is the first Friday in January after the December break.


## Final Approval

- Final approval for all independent proposals is with the Curriculum Director in the subject area being proposed. Proposals that are not approved may be revised and resubmitted for approval in a timely manner. Only one resubmission is allowed.


## Student Responsibilities

- A student taking Independent Study is individually responsible, by definition, for completing work on time, meeting with the in-school advisor/liaison (and out-of-school advisor, if appropriate), and keeping the in-school advisor/liaison informed of progress in completing the independent study.
- Students are solely responsible for adhering to quarter and semester deadlines, as well as any deadlines set by the in-school and/or out-of-school advisor(s). Work must be submitted according to these deadlines.


## Grading \& Credits

- Independent Study grades are not given weighted value, but will be part of a student's GPA. Honors credit is given only for a college course or for an Advanced Placement study. Students may elect to receive a Pass/Fail grade for an Independent Study that is taken as a seventh course only.
- Credit is determined by the amount of time a student spends in learning. Credit is awarded for semester (2.5 credits) and/or full year ( 5 credits) independent study course(s). One semester, 2.5 credits, is equal to 72 hours of work.
- A student may withdraw from Independent Study only by following the normal withdrawal process for regular courses as outlined in the Student \& Parent Handbook. Failure to withdraw using this process may result in a transcript grade of WF.
- Independent Study is a privilege. All students who participate in independent study must maintain good grades, regular attendance and appropriate behavior in all their other courses and at school to remain in independent study. Students who do not meet these standards may be asked to withdraw from the Independent Study course.


## Course Descriptions



## ENGLISH DEPARTMENT

English is the foundation for all learning in our culture and the medium through which an individual communicates with the world. In order to communicate effectively, one must master the basic elements of language: reading, writing, listening and speaking. To enable students to attain these ends, the English program provides a rigorous and varied writing program, an in-depth study of the literature of this and other cultures, and a variety of aural-oral experiences. The primary aim of the English program is to produce individuals who are comfortable with their language and confident in their use of it. The study of the language must always be progressive, moving from the knowledge of the basic language to the understanding of its structure and scope and, finally, to an appreciation of its beauty and power.

All students are required to complete four years of English and write a senior thesis. Required courses are taught at the honors and college-preparatory levels. Students wishing to take an honors level course should have the recommendation of an English teacher.

SEQUENTIAL CHART
Grade 9

- Exposition and Coming of age (CP)
- Exposition and Romance (H)
- Transitional English

Grade 10
Grade 11

## Core

- The Tragedy, the Epic, and
the Persuasive Essay (CP)
- The Tragedy, the Epic, and
the Persuasive Essay (H)
- Transitional English
- Advanced Grammar
- Reflections on the American Dream (CP)
- Reflections on the American Dream (H)
- Transitional English
- Advanced Grammar

Grade 12

- English 12 (CP)
- English 12 (H)
- English Literature and Composition (AP)
- Transitional English

Elective Course

- Advanced Grammar
- Advanced Grammar (H)
- Creative Writing
- Public Speaking/Debate
- Advanced Grammar
- Advanced Grammar (H)
- Creative Writing
- Public Speaking/Debate
- Creative Writing
- Public Speaking/Debate

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\text { English - } 4 \text { year requirement (21 credits) }
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This college-preparatory course concentrates on the coming of age theme in the four literary genres: the short story, the novel, the poem, and the play. Using the writing process, students focus on developing their analytical writing skills through frequent, text-based writing assignments. In the first quarter, students explore their summer reading in depth, learn the basic skills of descriptive and analytical writing, and study Cisneros's The House on Mango Street. Students read and analyze short stories and a novel during the second quarter. In the third quarter students study poetry through in-class assignments and complete a major independent research and analysis project. The study of Romeo and Juliet in the fourth quarter completes the year. Throughout the year, students study vocabulary and grammar and complete a variety of outside reading assignments. Summer reading is required.

## 112 English 9 Honors: Exposition and Romance

9
Year
Credits: 5
This honors course concentrates on expository writing and the coming of age theme in the four literary genres: the short story, the novel, the play, and the poem. This challenging course requires considerable reading and frequent text-based expository writing assignments. In the first quarter, students explore their summer reading in depth, focus intensively on building their expository writing skills, and develop an understanding of the archetypes of romance through short stories. In the second quarter, students study Great Expectations and complete an on-line research project related to the Victorian period. In the third quarter, students explore Shakespeare's sonnets in preparation for their study of Romeo and Juliet. The study of a modern novel and contemporary, multicultural poetry in the fourth quarter completes the year. Vocabulary and the mechanics of writing are also aspects of this course. Summer reading is required.

120 English 10: The Tragedy, the Epic, and the Persuasive Essay 10 Year Credits: 5
College-bound students continue their study of literary archetypes through ancient and modern works of literature. After working with their required summer reading, students begin their study of the tragic hero with the reading of Shakespeare's Macbeth and Sophocles' Antigun. Students also explore the hero of epic poetry while reading portions of Homer's Odyssey. Students will contrast the classic hero with the modern anti-hero. Another unit is devoted to portfolio essay-writing to develop skills in argumentation and persuasion, accompanied by a library research unit and a nonfiction independent reading assignment. Each quarter students independently read a work of fiction or non-fiction of their own choosing. Writing assignments are based on the literature studied in class and on independent reading. Students practice the various stages of the writing process, i.e., shaping a thesis, developing and documenting it with appropriate material, and revising and editing successive drafts. Vocabulary development, MCAS preparation, grammar, journal writing, and literary analysis are integral parts of the curriculum. This course also emphasizes the development of sound study and organizational skills. Summer reading is required.

## 122 English 10 Honors: The Tragedy, the Epic, and the Persuasive Essay 10 Year Credits: 5

The literature program of this honors course examines the theme of the moral consequences of human action. Students explore this theme by reading a range of literature, including the epic, tragedy, contemporary fiction, short stories, poetry, and selected myths from different cultures. After working with their required summer reading, students begin their study of the hero in literature with Shakespeare's Macbeth and Sophocles' Antigone. They continue their exploration of the hero in epic poetry while reading Homer's Odyssey. Students will contrast the classic hero with the modern anti-hero. Each quarter, students also independently read a work of fiction or non-fiction of their own choosing. Through process writing, students develop skills in both personal and expository writing with an emphasis on learning to write clear and focused analytical essays. Another unit is devoted to portfolio essay-writing to develop skills in argumentation and persuasion, accompanied by a library research unit and a nonfiction independent reading assignment. Vocabulary development, grammar, journal writing, and literary analysis are a regular part of this course. MCAS preparation is included. Summer reading is required.

The focus of this college-preparatory course is the study of American literature with a special emphasis on Thoreau, Emerson, Twain, Chopin, Fitzgerald, and contemporary authors and poets. The authors read enable students to understand the imagery and recurring themes that define American literature. Students continue to refine their writing style through literary-based analytical and reflective essays, journals, narratives, and personal responses emphasizing the development and support of a thesis statement. Students practice for the PSAT and SAT.

This honors course is an intensive study of American Literature and American literary history. The course is organized chronologically with an emphasis on recurring themes. Students explore how writers have defined and redefined the American experience and how their visions of America and Americans have evolved. Course readings will be drawn from the works of Thoreau, Emerson, Hawthorne, Melville, Whitman, Dickinson, Twain, Crane, Chopin, Fitzgerald, Hemingway, Hurston, Miller, and Morrison. Students write frequent expository essays, short analyses of poems or passages, and personal, reflective pieces. Students integrate ideas from literary criticism into their essays and eventually select their senior thesis topics. Students are expected to participate in class discussions. Some SAT preparation work is built into the curriculum.

## 140 English 12

12
Year
Credits: 6

This college-preparatory course is intended as a culmination of students' previous training in reading, writing, speaking, and analyzing. Students are expected to read each night for the course, to work on their senior thesis research, and to develop critical thinking skills. Selected texts include both British and Western literature in the three major genres: fiction, poetry, and drama. Throughout the year students will be guided through the process of reading, researching, organizing, and writing a senior thesis. Summer reading is required for the course and for the senior thesis.

English 12 Honors
Year Credits: 6
English 12 Honors explores fiction, poetry, and drama with an emphasis on experiments in these genres. The course will enhance students' reading, writing, and analytical skills. Works may include texts by Shakespeare, Wilde, Sophocles, Woolf, James, and Faulkner, as well as poetry from Chaucer to the present. Students will use advanced research strategies to synthesize primary and secondary sources in completing a senior thesis project. Summer reading is required for the course and for the senior thesis.

148 Advanced Placement: English Literature and Composition
12 Year
Credits: 6
This AP course is intended as a culmination of students' previous training in writing, reading, speaking and analyzing. The literature selections emphasize, but are not limited to, the development of British and Western prose and poetry. This course examines literary theories and involves close textual analysis through regular in-class timed writings. Special emphasis is placed on the reading comprehension and writing skills necessary for the College Board's Advanced Placement Literature and Composition test offered each May. Students who do not take the AP exam will receive only honors credit on their transcript for this course. A senior thesis will be completed in April. Summer reading is required for the course and for the senior thesis.

## ELECTIVES

## 150 Transitional English

9-12 Year
Credits: 5
Transitional English is a full-year course for English language learners who are ready to study advanced language skills and writing techniques, which will prepare them for regular English courses. Emphasis is placed on reading and discussing works of fiction and developing formal writing and oral presentation skills. Vocabulary and grammar is reviewed throughout. When students demonstrate English proficiency, they will have the opportunity to move into an appropriate required English course.

## 156 Advanced Grammar

## 10-11 <br> Semester Credits: 2.5

## 157 Advanced Grammar H

This course offers a study of such topics as grammar and usage, sentence parts and structures, sentence and paragraph errors and improvements, mechanics, and word choice. This course assists students to improve their editing and revising skills. Students also have opportunities to practice for the reading and writing portions of the SAT. The honors section will cover additional topics in greater depth.

This course provides interested students with the opportunity to develop their writing skills in four areas: the personal essay, the short story, the play, and the poem. Students examine examples of these forms of writing, work with a writing teacher in a workshop setting, and create materials suitable for submission to publications, contests, and college admission offices. Students completing this course prepare a final portfolio demonstrating growth and performance as writers. Students who wish to elect this course for a second time may do so only with the permission of the Director of English

## Public Speaking/Debate

10-12
Semester Credits: 2.5
Public Speaking/Debate is a one semester course designed to help students become comfortable speakers before audiences as well as adept oral communicators and debaters. The course is open to everyone--from those with stage fright to those who want to polish their speaking skills. The course is good preparation for college interviewing. Students learn the strategy of logical argument and develop such speaking skills as poise and diction. Students learn to prepare speeches and to speak "on their feet." Videotaping of performances is an integral part of the course, as are self and peer evaluation.

## English Skills Development

10-12
Semester Credits: 1
This course focuses on reading comprehension, writing, and test taking skills. The reading and writing skills developed and refined in this course are useful in various other classes and are necessary for success on the Grade 10 MCAS English test. All instruction is based on diagnostic assessment of students' needs and will be consistent with the Massachusetts English Language Arts Framework. Students will not enroll in this course on their own. They will be placed in this course by the English Director based on MCAS ELA scores of Failing or Needs Improvement.


## DEPARTMENT OF FINE AND PERFORMING ARTS

All students are required to complete five (5) credits in the fine and performing arts in order to graduate from Belmont High School. The Department of Fine and Performing Arts offers a wide range of courses in music, theatre and visual arts to meet the needs and interests of the student body. Students enrolled in music ensembles can elect to take it for either college preparatory or honors credit. Students who elect to enroll in a choir, orchestra or band for honors credit must complete additional assignments assigned by the instructor. The music and theatre programs offer a range of cocurricular activities. Arts In Motion, our after-school dance program, is available to all interested students as a cocurricular opportunity. Students may also enroll in Arts In Motion to fulfill a physical education requirement.

## Grade 9

- Drawing and Painting 1
- Ceramics 1
- Photography 1
- Sculpture 1
- Freshman Women's Choir (CP/H)
- Men's Chorale (CP/H)
- Wind Ensemble (H)
- Symphonic Band (CP/H)
- Concert Orchestra (CP/H)
- Chamber Orchestra (H)
- Music Workshop
- History of Popular Music
-Introduction to Theatre

Grade 10<br>- Drawing and Painting 1<br>- Drawing and Painting 2<br>- Ceramics 1<br>- Ceramics 2<br>- Photography 1<br>- Photography 2<br>- Sculpture 1<br>- Sculpture 2 (H)<br>- Women's Chorale<br>(CP/H)<br>- Men's Chorale (CP/H)<br>- Chamber Singers (H)<br>- Wind Ensemble (H)<br>- Symphonic Band (CP/H)<br>- Concert Orchestra<br>(CP/H)<br>- Chamber Orchestra (H)<br>- Music Workshop<br>- History of Popular Music<br>- Music Theory (AP)<br>-Introduction to Theatre<br>\section*{Grade 11}<br>- Drawing and Painting 1<br>- Drawing and Painting 2<br>- Studio Art: Drawing Portfolio (AP)<br>- Ceramics 1<br>- Ceramics 2<br>- Ceramics 3 (H)<br>- Photography 1<br>- Photography 2<br>- Photography 3 (H)<br>- Sculpture 1<br>- Sculpture 2 (H)<br>- Women's Chorale (CP/H)<br>- Men's Chorale (CP/H)<br>- Chamber Singers (H)<br>- Wind Ensemble (H)<br>- Symphonic Band (CP/H)<br>- Concert Orchestra (CP/H)<br>- Chamber Orchestra (H)<br>- Music Workshop<br>- History of Popular Music<br>- Music Theory (AP)<br>-Introduction to Theatre

## Grade 12

- Drawing and Painting 1
- Drawing and Painting 2
- Studio Art-Drawing Portfolio (AP)
- Studio Art: Two-Dimensional Design (AP)
- Ceramics 1
- Ceramics 2
- Ceramics 3 (H)
- Photography 1
- Photography 2
- Photography 3 (H)
- Sculpture 1
- Sculpture 2 (H)
- Women's Chorale (CP/H)
- Men's Chorale (CP/H)
- Chamber Singers (H)
- Wind Ensemble (H)
- Symphonic Band (CP/H)
- Concert Orchestra (CP/H)
- Chamber Orchestra (H)
- Music Workshop
- History of Popular Music
- Music Theory (AP)
-Introduction to Theatre

Fine and Performing Arts - 1 year requirement (5 credits)

VISUAL ARTS

Drawing and Painting 1
9-12 Year
Credits: 5
This course is designed to provide students with basic skills in drawing and painting with an emphasis on drawing from direct observation. The student will be introduced to contour drawing, negative space, value portraiture, figurative and still life drawing. An introduction to painting will include color mixing, application and theory. Drawing and Painting 1 is a fun, but rigorous course. The student will have to work hard to acquire the fundamental disciplines which create a solid foundation in drawing and painting.

The knowledge and skills learned in Drawing and Painting 1 will be expanded in this course. Students will learn many different techniques using a variety of materials. This course focuses on the areas of design color theory, composition, advertising, illustration, portraiture, figure drawing, and landscape. Students in Drawing and Painting 2 should be able to demonstrate an advanced ability to draw and print from direct observation.

Prerequisite: Drawing and Painting 1

Credits: 5
The Advanced Placement Program in Studio Art is intended for highly motivated students who are seriously interested in the study of art. Students should be aware that AP work involves significantly more commitment and accomplishment than the typical high school course. Students will learn to be proficient in a variety of areas including observational drawing, painting, color theory, printmaking, design, and mixed media.

The Advanced Placement course will address three major concerns: (1) a sense of quality in a student's work; (2) the student's concentration on a particular visual interest or problem; and (3) the student's need for breadth of experience in the formal, technical, and expressive means. Upon completing Advanced Placement Studio Art, students will submit a portfolio to The College Board for college credit.

Prerequisite: Students who are considering Advanced Placement in Studio Art - Drawing Portfolio must submit a portfolio in February as a prerequisite for this program.

## 822 Advanced Placement in Studio Art: Two-Dimensional Design 12 Year Credits: 5 Portfolio

This Advanced Placement course in Studio Art Drawing 2 Dimensional Design Portfolio is intended for the highly motivated student who has successfully completed Advanced Placement in Studio Art Drawing Portfolio. The 2D Portfolio class is designed to entertain a very broad interpretation of drawing, painting, printmaking, design, and observational and abstract issues. Students who are seriously interested in the study of art should be aware that this course involves significantly more commitment and accomplishment than the typical high school art course. Students will need to work beyond scheduled periods, weekends, and after school. Upon completion of the course, students will submit a portfolio to the Advanced Placement College Board for credit.

Prerequisite: Advanced Placement in Studio Art - Drawing Portfolio

## 809 Ceramics 1 <br> 9-12 Year <br> Credits: 5

This introductory ceramics course exposes students to throwing on the pottery wheel and hand building techniques. Students learn to throw basic forms on the wheel, such as bowls and cylinders. Students will create various hand-built pieces including mugs, boxes, masks, and other functional and non-functional pieces. Students will learn how to apply underglazes and over glazes and learn various techniques in surface design.

## 813 Ceramics 2 <br> 10-12 Year <br> Credits: 5

Ceramics 2 is designed for students who have completed Ceramics I and want to perfect and refine their abilities in ceramics. The wheelwork is more rigorous and more challenging assignments are given. New techniques will be introduced and applied in more complex ways than in Ceramics 1. New glazing techniques will also be introduced.

Prerequisite: Ceramics 1

## 819 Ceramics 3 Honors <br> 11-12 Year <br> Credits: 5

In Ceramics 3, students will continue to develop skills and knowledge in ceramic design concepts to create work at a highly advanced level. Students will develop skills and techniques in a variety of specialized wet clay methods with a conceptual focus, one of them being slab sculpture done in high relief exploring the human figure. Ceramics 3 will also incorporate advanced techniques in surface design and glazing. The students' work will demonstrate technical and aesthetic mastery in ceramic functional and abstract design. This body of work will be used for exhibition, and in the development of a ceramic portfolio.

Prerequisite: Ceramics 2

## 815 Photography 1 <br> 9-12 Year <br> Credits: 5

This introductory course in black and white photography includes all aspects of creating black and white images from exposure in the camera to darkroom techniques. Photographic history and aesthetics, in addition to more creative use of the camera, makes up the second half of this course. Students are required to provide their own 35 mm camera with manual adjustments.

This advanced course is for students who have successfully completed Photography 1. This course includes creative darkroom techniques, multiple negative prints, and other advanced photographic techniques. Photographic issues and artists will be discussed in depth, and a digital photography unit will be completed during the year. Students are required to provide their own 35 mm camera with manual adjustments.
Prerequisite: Photography 1

Building upon the technical training and aesthetic explorations of the Photography 2 course, Photography 3 will expand the scope and breadth of the students' skills as it stresses the creation of a confident individual vision and artistic voice. Photography 3 will incorporate long-term documentary research, multimedia/mixed media experimentation, and reflective writing and art analysis. Students will create work for exhibition, competition, and publication while working towards a high level of technical and aesthetic mastery.

Prerequisite: Photography 2

## Sculpture 1

9-12 Year
Credits: 5
This course introduces the student to basic skills needed in sculptural and three-dimensional design. Students will develop concepts and technical skills through the use of a variety of materials including: paper, wood, plaster, clay, wire, and stone. Students will learn proper and safe use of the basic tools required to create works in 3D. Students will use historical and contemporary art as a departure point for designing works of their own. This is a beginning course; no previous experience is necessary.

Sculpture 2 Honors
10-12 Year
Credits: 5
This course builds upon the skills and knowledge acquired in Sculpture 1. Students will continue to develop skills in modeling and carving as well as exploring techniques in mixed media and personal pursuits in three dimensions. Projects will include a life size clay bust, public sculpture, and freestanding stone carvings. Students will explore ideas found in historical and contemporary art making.

Prerequisite: Sculpture 1

## MUSIC

The Women's Choir is open to women in grade 9. Previous singing experience is not necessary and no audition is required. In this, students will master choral repertoire written for women's voices, representing the various periods and styles of music, and the music of women composers. Emphasis is placed on development of choral sound, blend, balance, style, diction, phrasing, dynamics, tonal production support, and sight reading skills. The Women's Choir is a performance oriented ensemble. Participation in all scheduled performances is mandatory, including performances with the Chamber Singers, and Men's and Women's Chorales. Students will perform at festivals such as MICCA and ACDA, in addition to Singarama, Winter Concert, Spring Concert and the "POPS" Concert. Additional requirements include periodically assigned singing reviews. No Prerequisite

- 720 Freshman Women's Choir Honors - students must complete additional requirements as assigned by the instructor.

Credits: 5
The Men's Choir is open to all men in grades 9-12. Previous singing experience is not necessary and no audition is required. In this, students will master choral repertoire written for men's voices, representing the various periods and styles of music. Students will also study challenging repertoire for mixed voices to sing combined with women's Chorale. Emphasis is placed on development of choral sound, blend, balance, style, diction, phrasing, dynamics, tonal production support, and sight reading skills. The Men's Choir is a performance oriented ensemble. Participation in all scheduled performances is mandatory, including performances with the Chamber Singers, Women's Choir, and Women's Chorale. Students will perform at festivals such as MICCA and ACDA, in addition to Singarama, Winter Concert, Spring Concert and the "POPS" Concert. Additional requirements include periodically assigned singing reviews. No Prerequisite

- 834 Men's Chorale Honors - students must complete additional requirements as assigned by the instructor.

The Women's Chorale is open to all women in grades 10-12. Previous singing experience is not necessary and no audition is required. In this ensemble, students will master choral repertoire written for women's voices, representing the various periods and styles of music, and the music of women composers. Students will also study challenging repertoire for mixed voices to sing combined with Men's Chorale. Emphasis is placed on development of choral sound, blend, balance, style, diction, phrasing, dynamics, tonal production support, and sight reading skills. The Women's Choir is a performance oriented ensemble. Participation in all scheduled performances is mandatory, including performances with the Chamber Singers, Women's Choir and Men's Chorale. Students will perform at festivals such as MICCA and ACDA, in addition to Singarama, Winter Concert, Spring Concert and the "POPS" Concert. Additional requirements include periodically assigned singing reviews. No Prerequisite

- 833 Women's Chorale Honors - students must complete additional requirements as assigned by the instructor. This option is only available to students in grades 10-12.

Chamber Singers is an auditioned choir that studies advanced level music literature from all time periods. Students are expected to consistently exhibit high level musical skills, including the ability to blend, sight read, and sing with impeccable intonation and well developed vocal technique. In addition to learning music for this ensemble, students are expected to learn the literature performed by the other choral ensembles for combined performances. Participation in all scheduled performances is mandatory, including performances with the Men's and Women's Chorales, and Women's Choir. Students will perform at festivals such as MICCA and ACDA, in addition to Singarama, Winter Concert, Spring Concert and the "POPS" Concert. Additional requirements include periodically assigned singing reviews.

Prerequisite: Permission of the instructor
Wind Ensemble Honors 9-12 Year

Credits: 5
The Wind Ensemble is an auditioned ensemble receiving honor's level credit. Performance repertoire will include masterworks for the wind band and advanced 20th century compositions. Emphasis is placed on independence of parts, technical proficiency, and musical interpretation. A minimum of one year's experience in Symphonic Band is strongly recommended. The Wind Ensemble performs at Bandarama, the High School Winter Concert, the Spring Band Concert, the "POPS" Concert, graduations, and at various local, state, and national festivals. Participation in all scheduled performances is required.

Prerequisite: Permission of the instructor

Symphonic Band is open to all qualified students in grades $9-12$ who play woodwind, brass, or percussion instruments. The Symphonic Band studies music from many different historical periods and is dedicated to the development of individual instrumental technique and large ensemble skills. The Symphonic Band performs at Bandarama, the High School Winter Concert, the Spring Band Concert, the "POPS" Concert, graduation and at the MICCA Concert Festival. Additional concerts may be scheduled with guest artists. Periodically, the Symphonic Band will travel and participate in out-of-state festivals. Requirements: Participation in all scheduled performances is required; completion of quarterly playing reviews (1 per quarter); two brief writing assignments ( 1 per semester).

- 894 Symphonic Band Honors - students must complete additional requirements as assigned by the instructor.

The Concert Orchestra performs a wide range of string music from the Baroque, Classical and Romantic periods, as well as string music of twentieth century and alternative style composers. The Concert Orchestra also performs as a full symphony orchestra three times a year. Students will study the different bowings, articulations, dynamics, keys and nuances associated with each composition. Concert Orchestra members can choose to perform in a variety of chamber music ensembles with other string and wind instruments. Concert Orchestra is open to all qualified players of violin, viola, cello and bass. This ensemble performs at Stringarama, the High School Winter and Spring Concerts, the "POPS" Concert, and at the annual MICCA Concert Festival. Additional concerts may be scheduled with guest artists and for high school graduation. Periodically, the Concert Orchestra will travel and participate in out-of-state festivals. Requirements: Participation in all scheduled performances is required; completion of quarterly playing reviews (1 per quarter); two brief writing assignments (1 per semester).

- 893 Concert Orchestra Honors - students must complete additional requirements as assigned by the instructor.
- 899 Chamber Orchestra Honors - entrance is by audition and permission of the instructor; all students must register for Concert Orchestra. Auditions are held in September; students are registered for Chamber Orchestra after auditions; requires attendance at one additional mod per week.

Credits: 5
This course is open to all students in grades 9-12 regardless of their musical background. Students in this course will use synthesizers and computer technology to learn the fundamentals of music and develop skills in reading, composing and arranging music. Software, such as Sibelius, and Home Studio are used extensively throughout the year. The ability to play an instrument is not required. However, it is helpful if students electing this course have some basic skills in reading music. This course is an ideal option for those students who have an interest in music, and would like to meet the fine arts graduation requirement in a non-performance setting. Music students who wish to elect Advanced Placement Music Theory, but have a limited background in music theory are strongly encouraged to enroll in this course.

No Prerequisite

## 794

## History of Popular Music

9-12 Year

Credits: 5
This course is explores the history of popular music from the 1950s to the present day with an overview of earlier influences. There will be focus on diverse styles including: blues, jazz, swing, Motown, rhythm \& blues, hip-hop, rap, Latin music, as well as other multi-cultural influences. Careers of significant musicians will be discussed; music listening will be a prevalent activity throughout the course. The course will begin will blues, gospel and American folk music; the latter portion of the course will include discussion of the social rebellion of the 60s and 70s up through modern-day rock and heavy metal. The relationship of social, political and cultural events and trends to the evolution of popular music, and the impact of popular music on daily life and culture are among the major themes that will be investigated throughout the course. There will be a variety of activities including lecture, discussion, reading, written work, and guided listening. The course content reflects basic pursuits of all musicians: creating, performing, and making connections.

## No Prerequisite

## 790

## Advanced Placement Music Theory

10-12 Year
Credits: 5
In this Advanced Placement Music Theory course, students develop the ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a musical score. The achievement of this goal is promoted by the integrated approaches to the development of skills in listening, sight-singing, music notation, composition, and analysis. A student's ability to read and write musical notation is fundamental to this course. It is assumed that students electing this course have acquired basic performance skills in voice or on an instrument.

Prerequisite: Music Workshop or permission of the instructor/Department Director.

This course is a performance-based course designed to explore the skills and concepts necessary to create theatre. This includes an introduction to the elements of theatre performance, acting techniques, production design and technical elements of theatre, directing, theatre today, critiquing, and collaborative playmaking. Students will explore these topics through monologue and scene performances, as well as through individual and group projects. Students' physical, vocal, and imaginative skills will be developed through daily theatre exercises. Through this class, students will gain a greater appreciation and understanding of the theatre process while developing their own presentation and performance skills. Students have the opportunity to participate in the New England theatre Conference in the fall as well as taking a one act performance to the Emerson High School Festival in January.

No prerequisite


## FOREIGN LANGUAGE DEPARTMENT

The Foreign Language Department offers courses in Chinese, French, Latin, and Spanish. These courses are divided into stages of language learning. The stages are NOVICE, INTERMEDIATE, and ADVANCED. Each stage has a list of communicative outcomes that a student must master before advancing to the next stage. All students are encouraged to study at least one language throughout their high school years in order to attain the maximum level of linguistic and cultural proficiency. Students must earn 10 credits of foreign language in order to fulfill the graduation requirement.

The communicative performance outcomes for each stage are listed below. All of these learning standards apply to the modern languages (Chinese, French, and Spanish), while those specific to Latin are noted with an asterisk (*). The stage that each course addresses is listed in italics under the name. Students may skip a course if they are able to demonstrate mastery of the outcomes. This option requires prior approval from the teacher and the Foreign Language Director.

## SEQUENTIAL CHART

|  | Grade 9 | Grade 10 | Grade 11 | Grade 12 |
| :--- | :--- | :--- | :--- | :--- |
| Continuing <br> Chinese, French <br> or Spanish from <br> middle school | Level 2 <br> - College Prep <br> -Honors | Level 3 <br> - College Prep <br> - Honors | Level 4 <br> - College Prep <br> - Honors | Level 5 <br> - College Prep <br> - Advanced Placement |
| Continuing <br> Latin from <br> middle school | Latin 2 <br> - College Prep <br> - Honors | Latin 3 <br> - College Prep <br> - Honors | Latin 4 <br> - Honors | Advanced Placement: <br> Vergil |
| Beginning a <br> language | We offer Chinese 1, French 1, Latin 1 and Spanish 1/1B at the high school for students who <br> choose to start a new language at any point during their high school program. The grade you are <br> in when you start the language will determine the number of levels you can complete before <br> graduation. |  |  |  |
| Heritage <br> speakers | Heritage speakers of Chinese, French or Spanish who choose to study their heritage language <br> should contact the Director of Foreign Languages to take a placement test. The student will be <br> placed in the course which best matches his/her language skills. |  |  |  |

Upon completion of the NOVICE stage of language learning, students will be able to:

- greet and respond to greetings;*
- introduce and respond to introductions;*
- ask and answer questions;*
- make and respond to requests;
- exchange information and knowledge;
- express opinions and ideas;
- express needs and emotions;
- follow directions;
- understand some ideas and familiar ideas;*
- obtain information and knowledge;*
- read and interpret signs, simple stories, poems and informational texts;*
- describe people, places and things;*
- write lists and short notes; and
- begin to present information in a brief report.*

Upon completion of the INTERMEDIATE stage of language learning, students have expanded their ability to perform all the functions of the Novice stage, and will also be able to:

- ask and respond to questions to clarify information;
- exchange opinions about people, activities, or events;
- discuss class reading;*
- follow directions such as for a recipe, a word maze or a logic problem;
- read authentic and adapted materials, such as short stories, narratives, advertisements, and brochures;
- understand important ideas and details in highly contextualized authentic and adapted texts;*
- understand learned expressions, sentences, questions and polite commands in messages;*
- identify themes in fictional and nonfiction works and relate them to personal experiences;*
- write simple paragraphs;
- write greeting cards, notes, letters and e-mails;*
- describe story elements of characters, events, and settings;* and
- give presentations on planned activities or on cultural topics.*

Upon completion of the ADVANCED stage of language learning, students have expanded their ability to perform all the functions of the Novice and Intermediate stages, and will also be able to:

- suggest possible solutions to a problem;
- discuss personal feelings and ideas and persuade someone to consider an alternative viewpoint;
- share personal reactions to authentic literary texts, such as letters, poems, plays, stories, novels, etc.;
- read articles in a magazine, journal, or newspaper and understand main ideas;
- read a literary text and understand the theme, characters and setting;*
- identify the characteristics of four major genres: non-fiction, fiction, drama, and poetry in the target literature;*
- comprehend narration in present, past, and future;*
- identify and understand feelings and emotions;*
- comprehend audio and video texts;
- understand telephone conversations or written correspondence;*
- develop and present solutions to problems;
- state and support opinions to convince or persuade a listener or reader;
- write letters requesting specific information;
- write e-mail correspondence with peers to compare and contrast interests; and
- write reviews about a story, play, movie or other form of literature.*



## CHINESE

This course begins the sequence of the study of Mandarin Chinese with the focus on Chinese culture and basic language skills, such as Pinyin (a phonetic system that uses English letters) and simple sentence structures. Students will be able to ask and answer questions with Chinese speakers about themselves, their family and class-related topics. Students are required to recognize the most frequently used characters; writing is not required. They will start using Chinese input software to type characters.

## Chinese 2

Intermediate
9-12 Year
Credits: 5
This course follows the successful completion of Chinese 1 (studied at the high school or at the middle school), and continues the study of Mandarin Chinese with a focus on culturally enriched conversation topics such as school facilities and activities, hobbies, as well as describing one's clothing. Students will be able to communicate fluently with native speakers on these topics, and read and write simple paragraphs with Chinese characters. Students will also utilize tools such as Chinese input software, pod-cast and other Internet-based resources to enhance their learning experiences.

## Chinese 2 Honors

Intermediate
9-12 Year
Credits: 5
This is an intensive course for students who have successfully completed Chinese 1 (studied at the high school or at the middle school) and who are motivated to continue their language study at a more intense level. This course continues the study of Mandarin Chinese with a focus on culturally enriched conversation topics such as school work and activities, hobbies and going shopping. Students will be able to communicate fluently with native speakers on these topics, and read and write simple paragraphs with Chinese characters. Students will also utilize tools such as Chinese input software, podcast and other Internet-based resources to enhance their learning experiences.

## Chinese 3

Intermediate

## 9-12 Year <br> Credits: 5

This course follows the successful completion of Chinese 2 or Chinese 2H, and continues the study of Mandarin Chinese in depth. Students will acquire conversation skills in every day topics such as vacation, community, going shopping, going to see a doctor and one's favorite TV programs. The emphasis will be put on speaking and listening. Cultural topics will also be introduced as they connect with the topics.

Intermediate
11-12 Year
Credits: 5
This course follows the successful completion of Chinese 2 and continues the study of Mandarin Chinese in depth. With culture heavily intertwined in the topics, students will further advance their language skills by discussing topics such as vacation, community, going shopping, going to see a doctor and one's favorite TV programs. Reading and writing in characters are heavily emphasized. Original movies and related TV programs will be introduced as discussion topics.

Year Credits: 5
This course follows the successful completion of Chinese 3 Honors and offers students the opportunity to extend their studies of the Chinese language and culture in depth. Students will be able to further discuss topics such as traveling overseas, going to China and future goal and career plan. Students will only be reading and writing in Chinese characters with minimum help of Pinyin system. Extensive reading will be provided to help students understand the original materials. This course is taught mainly in Chinese.

This course begins the sequence of the study of French language and culture. The course emphasizes the four skills of speaking, writing, reading and listening that are assessed in both written and oral formats. Correct pronunciation and intonation as well as sound-spelling correlation and sound discriminations that differentiate words are an important part of this beginning course.

This course follows the successful completion of French 1 (studied at the high school or at the middle school). There is a continued emphasis on speaking, writing, reading and listening, with an increasing level of difficulty in the areas of vocabulary and grammar. There is a continued study of culture in the French-speaking world through the use of short readings.

Credits: 5
This is an intensive course for students who have successfully completed French 1 and who are motivated to continue their study of the French language and culture at a more intense level. There is an overall emphasis on the skills of speaking, writing, reading and listening, with an expectation that the students will be able to express themselves both in writing and in speaking in a spontaneous manner.

## 213 <br> French 3 <br> Intermediate <br> 10-12 Year <br> Credits: 5

This course follows the successful completion of French 2 or French 2 Honors. While continuing to emphasize speaking, writing, reading and listening, the length of discourse increases as students' progress through the sequence of French courses. In addition to reading selections from the textbook, students will be expected to read selections from authentic texts such as magazine articles and short stories.

214 French 3 Honors
Intermediate
10-12 Year
Credits: 5
This is an intensive course that is taught almost exclusively in French and demands a high level of motivation on the part of the student. This course continues to study the French language and culture by means of the four skills of speaking, writing, reading and listening. Spontaneous "resumes" on French life are an integral part of this course. Summer work required.
215 French 4 Intermediate 11 -12 Year Credits: 5

This course follows the successful completion of French 3 or French 3 Honors and continues the study of the French language and culture. While continuing to focus on the four skills of speaking, writing, reading and listening, students will be expected to increase their knowledge of idiomatic expressions as they reinforce the basic structural principles of the language.

216 French 4 Honors
Advanced
11-12 Year
Credits: 5
This is an intensive course that continues the study of the French language and culture with a survey of 19th and 20th century French literature that is read and discussed in the context of social and historical perspectives. Written essays and oral presentations are an important part of this course. Students are expected to have a sophisticated understanding of the French language given that the course is taught exclusively in French. Students will be prepared to take the SAT II in French by the end of this course. This course begins the preparation for the French Advanced Placement examination. Summer work required.
217 French $5 \quad$ Advanced $12 \quad$ Year $\quad$ Credits: 5

This course follows the successful completion of French 4 or French 4 Honors and is an option for students who want to continue their study of the French language and culture but do not plan to take the Advanced Placement test. Students will continue to strengthen their proficiency in the French language and culture through conversation, literary and authentic texts, movies and other sources. Summer work required.

The Advanced Placement course in French Language is a university level course for which students may receive university credit upon successful completion of the Advanced Placement examination at the end of the course. The material in this course represents the culmination of the previous years of study of the French language and culture, and has as its goal the refinement of the ability to use the language to speak, write, read and listen at an advanced level of discourse. Summer work required.

## LATIN

## Latin 1

Novice
Credits: 5
This course introduces the student to the classical language of the Romans. Fundamentals include Latin vocabulary, forms and grammar needed to read stories based on history and popular myths. Much attention is given to the development of English vocabulary and an appreciation of Roman customs and virtues.

## 231 <br> Latin 2 <br> Intermediate <br> 9-12 Year <br> Credits: 5

This course follows the successful completion of Latin 1 (either at the high school or at the middle school). In this course students learn the more advanced structures, grammar and vocabulary essential to the reading of Latin of moderate difficulty. Latin-English grammatical exercises lead to accuracy of expression and careful attention to detail. The reading includes selections from Caesar's Commentaries on the Gallic Wars and Ovid's Metamorphoses. Students are provided with experience in reading prose and poetry, history and mythology. By the end of the course the student is expected to have developed sufficient command to read the more sophisticated prose of Cicero in the third year.

## Latin 2 Honors

Intermediate
9-12 Year
Credits: 5
This is an intensive course for students who have successfully completed Latin 1 (at the middle school or high school) and who are motivated to continue their study of Latin at a faster pace and a more intense level. Students are expected to enter this course will a solid grounding in the five declensions of nouns and the four conjugations of verbs in the six tenses, active and passive voices, indicative and imperative moods. In this course students learn the more advanced structures, grammar and vocabulary essential to the reading of Latin of moderate difficulty. Latin-English grammatical exercises lead to accuracy of expression and careful attention to detail. By the end of the course the student is expected to have developed sufficient command to read the more sophisticated prose of Cicero in the third year.

Credits: 5
This course follows the successful completion of Latin 2 or Latin 2 Honors. Having mastered the fundamentals of Latin grammar and read guided selections of prose stylists (especially Caesar's Celtic Wars and invasion of Britain), the students are prepared to read poetic literature in several forms: epic (selections from Vergil's Aeneid), elegiac (Ovid), and romantic (Catullus, Horace). The aim of the course is not just to further the students' facility in translating Latin, but, through the texts, to deepen their understanding of the geography, politics, cultures, and history of the ancient Mediterranean.

Credits: 5
This course follows the successful completion of Latin 2 honors or Latin 3 college prep. In this course, students read selections from the orations and letters of Cicero, from the histories of Sallust and Livy and from the Metamorphoses of Ovid. Constant attention is given to an appreciation of the Ciceronian and Ovidian literary styles, historical and mythological backgrounds and vocabulary building. This course begins the preparation for the Latin Advanced Placement examination.

This course follows the successful completion of Latin 3 honors. In this course students apply the grammar and vocabulary they have learned in order to read, translate, understand, analyze, and interpret Latin in the original. Students will read selections from Catullus and Ovid as a means to analyze, interpret and understand both the linguistic and literary aspects of the texts. This course continues the preparation for the Latin Advanced Placement examination.

Advanced
Year
Credits: 5
This Advanced Placement course will prepare students to take the Vergil Advanced Placement examination in Latin. This is a college level course focused on the mastery of reading, translating, understanding, analyzing, and interpreting Latin in the original. Students will read Books 1 through 12 of Vergil's Aeneid as a means to analyze, interpret and understand both the linguistic and literary aspects of the text. Students must have successfully completed Latin 3 Honors in order to take this course.

Credits: 5
This course begins the sequence of the study of Spanish language and culture. The course emphasizes the four skills of speaking, writing, reading and listening that are assessed in both written and oral formats. Sound discrimination, pronunciation and cultural awareness of the Spanish-speaking world are an important part of this beginning course.
241 Spanish 1B Novice $9-12$ Year Credits: 5

This course is available for students who have passed Spanish 1 but need more time to master the novice outcomes (as described in the beginning of this section). Students will continue to work on the skills of speaking, writing, reading and listening in order to be well prepared to continue to Spanish 2 or Spanish 2 Honors the following year.

## Spanish 2

Intermediate
9-12 Year
Credits: 5
This course follows the successful completion of Spanish 1 (studied at the high school or at the middle school) or Spanish 1B. There is a continued emphasis on speaking, writing, reading and listening, with an increasing level of difficulty in the areas of vocabulary and grammar. There is a continued study of culture in the Spanish-speaking world through the use of short readings.

Spanish 2 Honors
Intermediate
9-12 Year
Credits: 5
This is an intensive course for students who have successfully completed Spanish 1 or Spanish 1B and who are motivated to continue their study of the Spanish language and culture at a more intense level. There is an overall emphasis on the skills of speaking, writing, reading and listening, with an expectation that the students will be able to express themselves both in writing and in speaking in a spontaneous manner.

## 244 Spanish 3 <br> Intermediate <br> 10-12 Year <br> Credits: 5

This course follows the successful completion of Spanish 2 or Spanish 2 Honors. While continuing to emphasize speaking, writing, reading and listening, the length of discourse increases as students' progress through the sequence of Spanish courses. In addition to reading selections from the textbook, students will be expected to read selections from authentic texts such as magazine articles and short stories.

This is an intensive course that is taught almost exclusively in Spanish and demands a high level of motivation on the part of the student. This course continues to study the Spanish language and culture by means of the four skills of speaking, writing, reading and listening. Emphasis is placed on the acquisition of reading and writing skills through the use of Spanish and Latin American short stories.

## Spanish 4

Intermediate
11-12 Year
Credits: 5
This course follows the successful completion of Spanish 3 or Spanish 3 Honors and continues the study of the Spanish language and culture. The focus continues to be on the four skills of speaking, writing, reading and listening, but there is particular emphasis on reading and writing through the study of Spanish and Latin American short stories. History and cultural topics in art, literature and music are important elements in the course. Summer work required.

## Advanced

11-12 Year
Credits: 5
This is an intensive course that continues the study of the Spanish language using literature from the Spanishspeaking world as a springboard for both vocabulary and grammar study. Authors are studied in relation to their social and historical contexts. Attendance to events in the Spanish-speaking community in the Greater Boston community is a requirement of this course. Students are expected to be able to use the material studied in the prerequisite courses in their writing, listening, and, speaking. The course is taught exclusively in Spanish. Students will be prepared to take the SAT II in Spanish by the end of this course. This course begins the preparation for the Spanish Advanced Placement examination. Summer work required.

Year
Credits: 5
This course follows the successful completion of Spanish 4 or Spanish 4 Honors and is an option for students who want to continue their study of the Spanish language and culture but do not plan to take the Advanced Placement test. Students will continue to strengthen their proficiency in the Spanish language and culture through conversation, literary and authentic texts, movies and other sources. Summer work required.

## Advanced Placement Spanish

Advanced
12
Year
Credits: 5
The Advanced Placement course in Spanish Language is a university level course for which students may receive university credit upon successful completion of the Advanced Placement examination at the end of the course. The material in this course represents the culmination of the previous years of study of the Spanish language and culture, and has as its goal the refinement of the ability to use the language to speak, write, read and listen at an advanced level of discourse. Summer work required.

## MATHEMATICS DEPARTMENT

We live in a time of extraordinary and accelerating change. New knowledge and ways of doing and communicating mathematics continue to emerge and evolve. Quantitative information available only to limited numbers of people a few years ago is now widely disseminated through popular media outlets. In this changing world, those who understand and can do mathematics will have significantly enhanced opportunities and options for shaping their futures.

There is a common foundation of mathematics that must be learned by all students. This does not imply that all students are alike. Students exhibit different talents, abilities, achievements, needs, and interests in mathematics. Nevertheless, all students must have access to the highest-quality mathematics instructional programs. A society in which only a few have the mathematical knowledge needed to fill crucial economic, political, and scientific roles is not consistent with the values of a just democratic system or its economic needs.
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## SEQUENTIAL CHART

## Grade 9

- Algebra 1
- Geometry
- Geometry (H)


## Grade 10

- Algebra 2
- Algebra 2(H)
- Geometry
- Geometry (H)


## Grade 11

- Algebra 2
- Algebra 2 (H)
- Pre-Calculus
- Pre-Calculus(H)
- Applied Topics in Mathematics
- Statistics (AP)
- Advanced Algebra and Trigonometry
- Math Applications of Finance and Business


## Grade 12

- Pre-Calculus
- Pre-Calculus(H)
- Calculus
- Calculus AB (AP)
- Calculus BC (AP)
- Applied Topics in Mathematics
- Statistics (AP)
- Pre-Calculus
- Pre-Calculus(H)
- Advanced Algebra and

Trigonometry

- Math Applications of Finance and Business

Mathematics - 4 year requirement (20 credits)

This course emphasizes algebraic language, structure, concepts and skills. Major topics include algebraic properties and the real number system, functions and their graphs, linear equations and inequalities, linear regression and modeling, systems of linear equations and inequalities, polynomials and factoring, algebraic fractions, and real world applications. The study of data sets may include linear regression and measures of central tendency.

Successful completion of this course should prepare the student for Geometry - 410.

A comprehensive modern course in Geometry is the study of a logical system of ideas that enables us to perceive and derive new ones. This course requires a strong background in algebra since algebraic concepts are integrated throughout the course. Major subject areas include lines, angles, polygons, trigonometry, planes, congruence, similarity, circles, areas, volumes, constructions, probability, coordinate proofs and applications. A primary aim of the course will be the development of logical inquiry through geometric proofs. Proofs will focus on triangles, parallel lines, transformations, and symmetry. Applications of geometry to art, architecture, and science are also included in this course.

Successful completion of this course should prepare the student for Algebra 2 Honors - 416.

This course requires successful completion of a full year of study in Algebra 1. The course blends the study of plane geometry with some exposure to solid geometry. The course curriculum is based on the Massachusetts State Frameworks for geometry with an emphasis on the development of logical inquiry through proofs. Students will focus on the study of triangles, parallel lines, quadrilaterals, circles and solids. Areas of plane figures and surface areas and volumes of solids are included. Transformations, tessellations and symmetry will be investigated. Right triangle trigonometry will be studied along with applications.

Successful completion of this course should prepare the student for Algebra 2-414.

## 414 Algebra 2

Students who elect this course should have a strong background in Algebra 1 and Geometry. This second year algebra course emphasizes the solution of equations and applications to problem situations. The course is comprehensive through quadratics and may include such topics as exponential and logarithmic functions, and the analytic geometry of conic sections. Graphing calculators may be used, but are not required. This course prepares students for Advanced Algebra and Trigonometry- 421 or Pre Calculus -426

## 416 Algebra 2 Honors <br> 10-11 Year Credits: 5

This course stresses both the structure and computations necessary to solve problems in algebra and trigonometry. The course involves an intensive study of equations, inequalities, functions, polynomials, conic sections, logarithms, exponents, and linear programming. The pace of the course is demanding and students electing this course should have a strong background in algebra and geometry. Successful completion of this course should prepare the student for Pre-Calculus Honors - 428.

421 Advanced Algebra and Trigonometry
11-12 Year Credits: 5
This course covers many of the same topics as Pre-Calculus - 426, but proceeds at a more deliberate pace. Students receive more one-on-one instruction and teachers adapt materials and assessment. Students taking this course must have successfully completed Algebra 2. This course extends the topics covered in Algebra 2 with a strong focus on graphing and interpreting graphs and includes a discussion of linear and polynomial functions, trigonometry, exponential and logarithmic functions, and other non-linear functions. Graphing calculators will be used periodically. Successful completion of this course should prepare the student for Pre-Calculus - 426 .

Students choosing this course should enjoy mathematical challenges and have a solid background in Algebra 2 and Geometry. Pre-Calculus presents and develops the topics usually included in an introductory analysis course. It begins with a study of linear and quadratic equations and continues with an intensive study of polynomials, inequalities, functions, exponents, logarithms, conic sections, and trigonometry. Graphing calculators will be used periodically. Students are required to complete a summer packet prior to the beginning of this course.

Successful completion of this course should prepare the student for Calculus - 430 .

This course requires a very strong background in Algebra2 and Geometry. This course covers the properties of polynomial, logarithmic, exponential and trigonometric functions. An extensive introduction to calculus is included through the study of limit theory, curve sketching, sequences and series, trigonometry and vectors. Graphing calculators will be used periodically and are necessary, but maintenance of numeracy skills is essential.

Successful completion of this course should prepare the student for a course in AP Calculus.

It is suggested that juniors and seniors interested in taking AP Statistics earn an A in 414 Algebra 2 or B+or higher in 416 Honors Algebra 2 or Pre Calculus. The purpose of this course is to introduce students to the major concepts and tools for exploring data, planning a study, analyzing patterns and drawing conclusions from data. The course will rely heavily on graphing calculator-based processes and the analysis of data produced by graphing calculator and some data produced by computer software packages. This course requires strong analytical reading skills as well as clear and concise writing skills. The Advanced Placement Statistics exam is expected of all students in this course.

## Calculus

Year Credits: 5
This course introduces the student to Calculus and Analytic Geometry, stressing an intuitive approach as well as problem solving techniques. A small number of theoretical proofs are demonstrated only to familiarize the student with notations that will be used later in college. Major topics include limits, derivatives and integrals of algebraic and trigonometric functions, and applications. Emphasis is placed on being able to solve problems with and without a graphing calculator. Students may choose to take the Calculus $A B$ exam with additional study and review. Students are required to complete a summer packet prior to the beginning of this course.

## Advanced Placement Calculus AB

Year Credits: 5
Students should have a strong background in Honors Pre-Calculus entering this course. Calculus AB is the equivalent of a college-level course in calculus. Topics include derivatives of algebraic functions and applications of differential calculus, integration and applications of the definite integral, methods of integration, and slope fields. Graphing calculators are used throughout this course. This course culminates in students taking the AP exam, which requires the use of a graphing calculator.

## Advanced Placement Calculus BC

Year Credits: 5
Students should have a strong background in Honors Pre-Calculus entering this course. BC Calculus is the equivalent of a fast-paced college course in calculus. Topics include parametric equations, vector theory, sequences and series, polar derivatives, derivatives of algebraic functions and applications of differential calculus, integration and applications of the definite integral, transcendental functions, methods of integration, infinite series, and Euler's method. Graphing calculators are used throughout this course. This course culminates in students taking the AP exam, which requires the use of a graphing calculator.

## 418 Topics in Mathematics

11-12 Year Credits: 5
This course is designed to appeal to a wide variety of students to those wishing to study such fields as Behavioral Sciences, Political Science, or Psychology. Technological applications of the computer, Internet, and the graphing calculator are emphasized. Project-based assignments are used in assessment as well as tests. Topics in this curriculum include probability, statistics, surveys, matrices, HTML and web page design, Internet search skills, and coding. Game theory, graph/network theory, and spreadsheets may be included at the discretion of the teacher. Mathematics skills will be reinforced throughout the course. Students taking this course should have successfully completed Algebra 2. The graphing calculator is required, and is used extensively.

## Math Applications of Finance and Business

11-12 Year

Credits: 5
This course is a mix of financial background and theory, as well as mathematical applications. Topics include career choices, personal banking, credit, investing, taxes, and topics of special interest. Students will be expected to complete a number of projects and will become proficient in a variety of technology applications including Microsoft Word, Excel and Power Point. Students should have successfully completed Algebra 2.

This course focuses on the five strands of mathematics which comprise the framework for the math curriculum throughout the Belmont Public Schools, as well as, test taking skills. The mathematics skills developed and refined in this course are useful in various other classes and are necessary for success on the Grade 10 MCAS Math test. All instruction is based on diagnostic assessment of students' needs and will be consistent with the Massachusetts Mathematics Framework. Students will not enroll in this course on their own. They will be placed in this course by the Mathematics Director based on MCAS Math scores of Failing or Needs Improvement.

This course is designed to support students who have demonstrated a need for additional instruction and practice in order to insure success in their geometry course. Students will not enroll in this course on their own. They will be placed in this course by the Mathematics Director based on the multiple factors from past performance.

413 Algebra 2 Tutor
10-12 Year
Credits: 2
This course is designed to support students who have demonstrated a need for additional instruction and practice in order to insure success in their algebra 2 course. Students will not enroll in this course on their own. They will be placed in this course by the Mathematics Director based on the multiple factors from past performance.


## PHYSICAL EDUCATION DEPARTMENT

Students must earn 2 credits per year in Physical Education. Ninth graders must take Wellness (I) in order to fulfill the Physical Education requirement for that year. Physical Education requirements for students in grade 10-12 can be fulfilled through one of four options or a combination of these options. These options are available both during the school day and after regularly scheduled school hours.

## COMPREHENSIVE HEALTH \& FITNESS EDUCATION: WELLNESS

Credits: 2
Wellness (I) is a required course for all freshmen that meets twice per week for a full year. The course will include classroom wellness activities and lab (Health and Physical Education). The course has a specific focus for each quarter.
Topic 1 - The Rudiments of Health-Related Fitness: Improving Your Physical Fitness.
Topic 2 - The Hexagon of Wellness: An Introduction to the Wellness Concept.
Topic 3 - Serious Health Issues: Understanding and Assessing Personal Risk and Consequences.
Topic 4 - Total Wellness: Balancing Within the Hexagon of Wellness.

## In grades 10-12, students have the four options outlined below:

- Option 1:

906 Wellness (II) 10 -12 Semester Credit: 1
Students must take the course for two semesters per school year to fulfill the yearly requirement for physical education. This course may be selected by semester in combination with options 2 through 4.

Wellness (II) is an elective for students in grades 10-12. Students will work on advanced topics in wellness, health, and physical education. The course will meet twice per week. Students may enroll by semester, or full year to meet the requirements for physical education.

- Option 2:

Interscholastic Athletics and Activities Season Credit: 1
Students receive 1 credit for each completed athletic season.
(Fall Athletics, Winter Athletics and Spring Athletics)

- Option 3:

Fitness Club/Activity
Semester Credit: 1
Students may contract to use the Belmont High School Fitness Center or choose an after school fitness activity. Contracts (available in the athletic office) must be submitted to the Director of Physical Education for approval. Full year contracts are due by November 1st of that school year. Half year contracts are due by February 1st of that school year. These programs must have duration of at least 15 consecutive weeks per semester and meet twice per week. Each individual session must be at least one hour in duration. Students receive 1 credit for each semester.

- Option 4:


## Contract for Non-School Physical Activity Programs

| Semester | Credit: 1 |
| :---: | :---: |
| $1 / 2$ | Credit: 1 |
| Year |  |
| Year | Credits: 2 |

Students and their parents may submit a request to be allowed to fulfill the Physical Education requirement by participating in an outside fitness program. These programs must have duration of at least 15 consecutive weeks per semester and meet twice per week. Each individual session must be at least one hour in duration. Contracts (available in the athletic office) must be submitted to the Director of Physical Education for approval. Full year contracts are due by November 1st of that school year. Half year contracts are due by February 1st of that school year.

## SCIENCE, HEALTH, AND TECHNOLOGY EDUCATION

Students entering Belmont High School as freshmen are required to take four years of science. The four years of course work must include Physics, Chemistry, and Biology, in that order. Courses are intended to develop skills in, or awareness of, critical analysis, problem solving, inquiry/research, effective communication of scientific ideas, and responsible citizenship. Most colleges and universities expect students to complete one year of biology, chemistry, and physics in high school. Students may take more than one science course in grades 11 and/or 12 with the approval of the Director of Science.

Students take the Massachusetts Comprehensive Assessment System (MCAS) science test near the end of their grade 9 and/or grade 10 science courses. Passing is required for graduation competency. Those who wish to take an SAT II in science should seek information and registration forms from the guidance office. SAT II test preparation courses are given through Belmont Community Education.

In order to receive Advanced Placement (AP) credit for any AP Science course, students must take the AP exam in May. Test information and registration forms are available in the guidance office. If a student chooses not to take the AP exam, honors credit will be assigned to the course.

## SEQUENTIAL CHART

| Grade 9 | Grade 10 | Grade 11 | Grade 12 |
| :---: | :---: | :---: | :---: |
| Core |  |  |  |
| - Physics (CP) <br> - Physics (H) | - Chemistry (CP) <br> - Chemistry (H) | - Biology (CP) <br> - Biology (H) <br> - Biology (AP) | Required Elective |
| - Wellness I |  |  |  |
| Elective Courses |  |  |  |
| - Engineering Design and Technology | - Physics II (H) <br> - Engineering Design and Technology <br> - Wellness II <br> - Interscholastic Athletics and Activities <br> - Fitness Club/Activity <br> - Contract for Non-School Physical Activity Programs | - Physics II (H) <br> - Chemistry (AP) <br> - Astronomy <br> - Physics B (AP) <br> - Disease, Forensics and Technology <br> - Engineering Design and Technology <br> - Wellness II <br> - Interscholastic Athletics and Activities <br> - Fitness Club/Activity <br> - Contract for Non-School Physical Activity Programs | - Physics II (H) <br> - Chemistry (AP) <br> - Physics B (AP) <br> - Astronomy <br> - Zoology of Aquatic and Terrestrial Organisms <br> - Anatomy and Physiology (H) <br> - Psychology and Neurobiology (H) <br> - Environmental Science (AP) <br> - Disease, Forensics and Technology <br> - Engineering Design and Technology <br> - Wellness II <br> - Interscholastic Athletics and Activities <br> - Fitness Club/Activity <br> - Contract for Non-School Physical Activity Programs |

Science - 4 year requirement ( 24 credits)
(1 elective required grade 9-12)
Physical Education \& Health - 2 year requirement ( 8 credits)

This is an honors level course for ninth grade students with a strong interest and ability in science and mathematics. Most assignments, tests, and class work deal with problem solving using mathematical relationships. Problem-solving and strong mathematical skills are required for this course. Students are expected to be comfortable with using algebra to solve problems and a proven ability to work independently and be self motivated. The trigonometry needed to solve problems will be taught in the course. Topics addressed in this course include: mechanics, electricity, magnetism, heat, waves, and optics. Students will be prepared to successfully complete the Introductory Physics MCAS test.

Prerequisite: 8th Grade Teacher's Recommendation based on Science, Math and work skill readiness.

## Freshman Physics

9
Year
Credits: 6
This is a conceptual Physics course that emphasizes concepts in physics which are seen in everyday life. One of the primary goals of the course is to help students understand the application of these concepts to problem-solving. A significant portion of the course will stress the development of conceptual understandings of physical laws and relationships. Topics addressed in this course include: mechanics, electricity, magnetism, heat, waves, and optics.

## Chemistry

10
Year
Credits: 6
Students will learn about physical and chemical changes that occur in matter. Students will develop strong problem solving skills, be asked to think analytically and perform a variety of laboratory experiments. Topics covered include: matter, measurement, atomic structure, bonding, reactions and stoichiometry, periodicity, gases, solutions, acids and bases. Students will be prepared to successfully complete the Chemistry MCAS test.

Prerequisite: Physics

## 522

Students will learn about physical and chemical changes that occur in matter. Students will strengthen problem solving skills, be asked to think analytically and perform a variety of laboratory experiments. A strong mathematical preparation, good organizational skills, and the ability to work independently and proactively is recommended for the pace and intensity of problem solving in this course. Topics covered include: matter, measurement, atomic structure, bonding, reactions and stoichiometry, periodicity, gases, solutions, equilibrium, acids and bases, and electrochemistry. Students will be prepared to successfully complete the Chemistry MCAS test.

Prerequisites: Physics and Teacher Recommendation


## CORE LIFE SCIENCES

The scope and sequence of this biology course includes evolution, classification, cell theory, biochemistry, genetics, and ecology. A brief discussion of some organ systems will be included. This is a survey course of the major biological topics. Students will be prepared to successfully complete the Biology MCAS test.

Prerequisite: Physics and Chemistry

Biology Honors
Year
Credits: 6
The Honors Biology course is a comprehensive and in-depth study of Biology. Students are expected to have highly developed reading comprehension, organizational and study skills, and to work independently. Honors Biology includes the study of ecology, biochemistry, cell structure and function, photosynthesis and cellular respiration, genetics, evolution, and human organ systems. With some additional preparation, students should be prepared to take the SATII Biology subject test. This course is for students in grade 11.

Prerequisite: Physics, Chemistry \& Teacher Recommendation

## 546

Advanced Placement Biology
11
Year
Credits: 6
AP biology can be taken as a first year biology course. It covers all the topics taught in a one-year college general biology course. AP biology is taught at an accelerated pace, where the student is expected to be an independent learner and have excellent organizational skills. There is a major lab component requiring extensive lab reports and the maintenance of a student lab research notebook. All labs required by The College Board for an AP Biology course will be performed, as well as many other labs. This course has an extensive summer requirement including field research/lab report, reading and other assignments. Work will generally be assigned over most vacations.

Prerequisite: Physics, Chemistry \& teacher recommendation

## Electives

## 524 Advanced Placement Chemistry

11, 12
Year
Credits: 6
This is a second-year chemistry course designed to be equivalent of the general chemistry course usually taken during the first year of college. Students will be required to complete an extensive summer reading assignment, solve intense problems that combine multiple concepts, perform the rigorous laboratory experiments required by the College Board, keep a detailed laboratory notebook, and write college-level laboratory reports. This course is also designed to prepare students to take the AP Chemistry Exam, which is given by the College Board in May. Summer work may be required.

Prerequisites: Algebra 2 (past or concurrent) Strong performance in Chemistry or Honors Chemistry, and teacher recommendation

## Science Skills

9-12 Year
Credits: 2
The MA Department of Education requires that students in the class of 2010 and after must pass one science MCAS exam in order to graduate from BHS. Students who receive a failing score on their Science MCAS exam in spring of any given year (Physics, Chemistry, Biology, or Technology Engineering), or who by other indicators present a high risk of not passing their science MCAS test, will be placed in this skills class to review and better prepare for the MCAS exam which will occur the following spring, barring other unavoidable schedule conflicts with required courses. Students will not enroll in this class on their own. Students will not enroll in this course on their own. They will be placed in this course by the Science Director based on MCAS Science scores of Failing or Needs Improvement.

This course is a second year course for students who want to study physics in more depth and design \& build devices which demonstrate that understanding. The topics covered include, but are not limited to, static equilibrium, structures, advanced rotational motion, fluids, quantum mechanics and relativity. Students build devices such as straw booms, wooden bridges, trebuchets which they then analyze using physics principles. Students are expected to integrate knowledge of science, math and other disciplines into their analyses, and present their findings to the larger group.

Prerequisite: Physics I and teacher recommendation

Year
Credits: 6

This course is designed for sophomores, juniors and seniors who have previously taken Physics, The course content follows the Advanced Placement guidelines and is structured to cover the topics addressed in a one semester introductory college physics course. Students who select this course should have advanced mathematical skills, independent learning habits, strong organizational skills and be prepared to work at an accelerated pace. Students will be prepared to take the AP Physics B Exam.

Prerequisite: Strong Algebra II background and Teacher Recommendation

Credits: 6
Astronomy is a science elective open to juniors and seniors that focuses on gaining an appreciation for the structure of the cosmos through direct observation, web resources, planetarium experiences, and classroom discussion. Topics include our view of the night sky, motions of heavenly bodies, the planets and moons of our solar system, views of the origin and evolution of the universe (cosmology), historical views of the cosmos, the search for extra solar planets, the possibility of extraterrestrial life, and the life cycles of stars, including black holes and supernovae. Students taking astronomy will learn how to use a telescope, how to locate objects in the sky, and may learn simple scotch mount astrophotography.

Prerequisite: Physics or Chemistry

## 548

## Zoology of Aquatic and Terrestrial Organisms

Year
Credits: 6
It is important to understand some fundamental differences between various animal groups. These differences govern the forms and life styles of both plants and animals, in water and on land. There are fundamental differences in how they capture energy, why and how they move, and how their bodies are shaped and grow. This course provides a general introduction to the evolutionary biology of aquatic and terrestrial animals. Students will study these animals in class, lab, and in the field. Students are expected to complete several dissections as a requirement for the course.

Prerequisite: Biology

## 552 Anatomy and Physiology Honors

Year
Credits: 6
This course is designed to cover the structure and function of the human body in depth. Both gross anatomy and microscopic anatomy are studied in detail. Dissections and hands-on based laboratory experiments are an integral part of the course. Students will not only gain an understanding of the organ systems of the human body but will also study diseases and disorders, preparing them for careers in health and medical fields. This class should prepare students to take an introductory college level anatomy and physiology course.

Prerequisite: Biology

This course is a collaborative effort between the social studies and science departments. Students are simultaneously enrolled in the two courses. This 32 course is designed to be the equivalent of a one-semester, introductory college course in laboratory - based psychology. In the science course, students study the anatomical and physiological basis of behavior. This includes a comprehensive study of the anatomy and physiology of the human brain and nervous system. Much of the work of this course is done in the lab. Students are prepared to successfully complete the AP Psychology exam.

Prerequisites: Chemistry \& Biology

## 556

## Advanced Placement Environmental Science

12
Year Credits: 6
The AP Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science. This course offers a rigorous scientific approach to issues in environmental science. A strong lab component will be included. Clay Pit pond and many local environments will be studied. Topics of study include: interdependence of Earth's systems; fundamental principles of ecology; human population dynamics; renewable and nonrenewable resources; environmental quality and degradation; environment and society; trade-offs and decision making. Students will be expected to be independent learners, complete a summer text reading assignment, book review, and project work. Students will be prepared for the AP Environmental Science exam.

Prerequisites: Physics, Chemistry \& Biology

## 599

Disease, Forensics and Technology
11, $12 \quad$ Year
Credits: 6
This is a college preparatory course primarily for seniors and a limited number of eligible juniors. Students will learn about the nature, treatment and spread of diseases during the first semester. Publications, examples and simulations will be used to illustrate the principles. The second semester will concentrate on the study of forensics. A variety of investigative methods will be studied involving biological, chemical and physical principles. Student project work will be encouraged in the course. Students electing this course should have successfully completed one year of biology or with permission of the instructor if room permits.

Prerequisites: Biology and permission of the instructor

This course provides students with an introduction to Engineering and Technical fields. Students investigate various technologies through a series of hands-on investigations and building exercises. Completion of a major design/build project is required. Projects are structured around the Engineering Design Process for solving openended problems. Students learn about and use a wide variety of materials, tools, and technologies. Spatial skills, technical communication, creative design, building and drawing by hand, rather than through computer technologies, are areas of focus.

Units include: Technical drawing (in both 2D and 3D), mechanisms and electro-mechanical systems culminating in a class-wide "battling machine" competition, electricity and electronic circuits (practical wiring and components, not theory), renewable energy technologies (including solar cells, solar thermal, wind and fuel cells). Careers in Design/Engineering fields are explored as well as inventors/inventions of the past.
Prerequisite: None

## COMPREHENSIVE HEALTH EDUCATION: WELLNESS

Wellness I is a required course for all freshmen that meets twice per week for a full year. The course will include classroom wellness activities and lab (Health and Physical Education). The course has a specific focus for each quarter.

Topic 1 - The Rudiments of Health-Related Fitness: Improving Your Physical Fitness
Topic 2 - The Hexagon of Wellness: An Introduction to the Wellness Concept
Topic 3 - Serious Health Issues: Understanding and Assessing Personal Risk and Consequences
Topic 4 - Total Wellness: Balancing Within the Hexagon of Wellness

Wellness II is an elective for students in grades 10-12. Students will work on advanced topics in wellness, health, and physical education. The course will meet twice per week. Students may enroll by semester (semester enrollment requires additional phys ed. activity(ies) to meet the yearly requirement), or full year to meet the requirements for physical education. See the Physical Education section of the Program of Studies for a full description.


## SOCIAL STUDIES DEPARTMENT

Social Studies is the integrated study of the social sciences and humanities to promote civic competence. Within the school program, social studies provides a coordinated study drawing upon such disciplines as history, anthropology, economics, geography, law, philosophy, political science, psychology, sociology, as well as appropriate content from the humanities. The primary purpose of social studies is to help young people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an increasingly interdependent world.

Students must select the sequential program of World History in grade 9 (200 A.D. - 1500 A.D.), Modern World History in grade 10 (1500 A.D. - Present) and American Studies in grade 11 (1865-Present). In selecting this sequence, students will learn not only historical concepts and patterns but also will develop writing and research skills necessary for the true comprehension of the social studies. During each course the research skills will be further operationalized in a Research Scope and Sequence which includes: the Freshman Research Paper in grade 9; the Sophomore Research Paper in grade 10, and the Junior Thesis in grade 11. All students in grade 11 must successfully complete the Junior Thesis in order to pass the course. Each succeeding course will build upon the knowledge and skills mastered through the previous one. In addition to the three year required core, students may choose from a variety of electives.

Students who enroll in Honors Social Studies courses are expected to: be self directed, have advanced writing and reading comprehension skills, have independent researching skills, have the ability to make inferences and discuss abstract ideas, possess strong self-advocacy skills, independently make up absent work in a timely fashion, and consistently turn in assignments on time. Summer reading and a written assessment may be required.

Departmental Statement on the AP Exam: Social Studies students enrolled in AP courses are expected to take the AP exam in the Spring. If you do not register and take the exam, the "AP" distinction can not appear on your transcript. In its place the course name with an "Honors" distinction will appear on your transcript, as both AP and Honors courses are weighted equally for purposes of GPA calculation. If you are unable to take the exam for any reason please make arrangements with your teacher or the Director of Social Studies ahead of time. All special circumstances will be held in confidence.

## SEQUENTIAL CHART

## Grade 9

## Grade 10

Grade 11

## Grade 12

## Core

- Modern World History (CP)
- Modern World History (H)
- European History (AP)
- American Studies (CP)
- American Studies (H)
- U.S. History (AP)


## Elective Courses

- You \& the Law
- European History (AP)
- U.S. History (AP)
- You \& the Law
- Facing History \& Ourselves
- Community Service
- Beginning Economics (H)
- Economics (AP)
- Modern Problems and Global

Politics (H)

- AP U.S. History (AP)
- European History (AP)
- You \& the Law
- Facing History \& Ourselves
- Community Service
- Beginning Psychology (H)
- Psychology (AP)
- Economics (AP)
- Beginning Economics (H) - Modern Problems and Global Politics (H)

Social Studies - 3 year requirement (15 credits)

World History surveys the major events of western and non-western history from 200 C.E. - 1500 C.E. Students in this course will acquire an appreciation of and investigate the impact that religion, geography, art, politics and economics, had on the culture of the various civilizations.

This program of study will require students to read a prescribed text, with an abundance of ancillary materials. Student assessment will respond to a variety of learning styles, and specific social studies skills and content areas, with a specific emphasis on writing and research skills. Students are required to successfully complete a Freshman Research Paper to continue to develop their researching skills and methods for historical writing.

612 World History Honors
$9 \quad$ Year
Credits: 5
World History surveys the major events of western and non-western history from 200 C.E. - 1500 C.E. Students in this course will acquire an appreciation of and investigate the impact that religion, geography, art, politics and economics, had on the culture of the various civilizations.

This program of study will require students to read a prescribed text, with an abundance of ancillary materials. Student assessment will respond to a variety of learning styles, and specific social studies skills and content areas. Students are required to successfully complete a Freshman Research Paper to continue to develop their researching skills and methods for historical writing. Summer reading and a written assessment is required for this course.

Students taking this course should have the recommendation of their eighth grade social studies teacher.

## Modern World History

10
Year
Credits: 5
Modern World History surveys the major historical events of the Global Community from 1500 A.D. - Present. A multi-discipline approach, including economics, geography, religion, art, literature, and philosophy, will be utilized to gain a broader insight into the cultural development of the world.

This program of study will require students to read a prescribed text, with an abundance of ancillary materials. Student assessment will respond to a variety of learning styles, and specific social studies skills and content areas, with a specific emphasis on writing and research skills. Students are required to successfully complete a Sophomore Research Paper.

Modern World History surveys the major events of the Global Community from 17500 A.D. to the present. Students enrolled in this course must have successfully completed Freshman World History. A multi-discipline approach, including economics, geography, religion, art, literature and philosophy, will be utilized to gain a broader insight into the cultural development of the world.

This program of study will require students to read a prescribed text, with an abundance of ancillary materials. Student assessment will respond to a variety of learning styles, and specific social studies skills and content areas. Students are required to successfully complete a Sophomore Research Paper.

Students taking this course should have the recommendation of their ninth grade social studies teacher.

The content of this course encourages a deeper understanding of the major historical events, the character and motives of national leaders, and residual progress made in great movements which have led to the development of culture and leadership in the United States from 1865 to the present.

Students learn about such themes in our history as the nationalizing of the republic, our movement from isolation to intervention in world affairs, the post World War II years, the conflicting thinking of the '50's and '60's and the American future. Teachers will emphasize the roles of art, literature, social trends, and politics in the development of American culture from industrialism in America through the present to the future.

This program of study will require students to read a prescribed text, with an abundance of ancillary materials. Student assessment will respond to a variety of learning styles, and specific social studies skills and content areas with an emphasis on writing and research skills. All students in grade 11 must successfully complete the Junior Thesis in order to pass the course.

Summer reading is required for this course. Students must have the assignment completed by the first day of school and be prepared to be assessed on all of the readings during the first week of school.

American Studies Honors
11 Year Credits: 5

The content of this course encourages a deeper understanding of the major historical events, the character and motives of national leaders, and residual progress made in great movements which have led to the development of culture and leadership in the United States from 1800's to the present.

Students learn about such themes in our history as the nationalizing of the republic, our movement from isolation to intervention in world affairs, the post World War II years, the conflicting thinking of the '50's and '60's and the American future. Teachers will emphasize the roles of art, literature, social trends, and politics in the development of American culture from industrialism in America through the present to the future.

This program of study will require students to read a prescribed text, with an abundance of ancillary materials. Student assessment will respond to a variety of learning styles, and specific social studies skills and content areas with an emphasis on writing and research skills. All students in grade 11 must successfully complete the Junior Thesis in order to pass this course.

Summer reading is required for this course. Students must have the assignment completed by the first day of school and be prepared to be assessed on all of the readings during the first week of school.

Students taking this course should have the recommendation of their tenth grade social studies teacher.

## ELECTIVES

## 638 Advanced Placement Psychology and Neuroanatomy Honors

Year
Credits: 11
This course is a collaborative effort between the social studies and science departments and is only open to seniors. Students are simultaneously enrolled in the two courses. This course is designed to be the equivalent of an introductory college course in laboratory-based psychology.

In the social studies course students focus on the behavioral, cognitive, social, psychodynamic, trait and humanistic paradigms of psychology. In the science course students study the anatomical and physiological basis of behavior. This includes a comprehensive study of the anatomy and physiology of the human brain and nervous system. Students are required to have successfully completed one biology course and one chemistry course. Much of the work of this course is done in the lab. Students are prepared to take the Advanced Placement examination in Psychology. Students may take only one Behavioral Science Course (Introduction to Psychology, or Behavioral Science Honors, or Beginning Psychology, or AP Psychology).

Summer reading is required for both the science course and the social studies course with an accompanying assessment.

The principal aim of this course is to provide students with an opportunity to master an overall knowledge of the basic chronology, major events, and trends in European History from 1450 to the modern era through an examination of the political, social, economic, and intellectual forces in European History. Strong emphasis will be placed on writing skills.

This course is for competent and ambitious sophomore, junior and senior students who are capable of handling college-level work in European History. This course is intended for those planning on taking the Advanced Placement exam at the end of the year.

Summer reading and a written assessment is required for this course. Traditionally, summer work for this course requires students to read and take notes on primary and secondary source materials relating to the Renaissance from the course textbooks. Students must have the assignment completed by the first day of school and be prepared to be assessed on all of the readings during the first week of school.

Students will do an intensive study of American History. The knowledge acquired in this course will be through studies of major documents, graphic materials, and the works and interpretations of important historians. Students will also write well-defined historical reports. The major themes covered in the course will be the social, cultural, economic, political, and diplomatic history of the American people.

Students selecting this course should be ambitious and capable of doing college-level work. Students are expected to take the Advanced Placement Exam given at the end of the year because success in this exam may enable them to gain advanced standing at the university level. Students enrolling in this course should have a "B+/A-" average and the approval of their sophomore teacher and the department coordinator, and advanced reading and writing skills.

All students in grade 11 must successfully complete the Junior Thesis in order to successfully pass the course.
Summer reading and a written assessment is required for this course. Traditionally, summer work for this course requires students to complete one chapter from the course textbook (to be picked up in June in the Social Studies Department) as well as two assigned non-fiction books. Previous examples of non-fiction selections have been John Adams by David McCullough, Founding Brothers by Joseph Ellis, and Confederates in the Attic by Tony Horwitz. Students must have the assignment completed by the first day of school and be prepared to be assessed on all of the readings during the first week of school.

- This course is not being offered in 2009-2010. "Beginning Economics Honors" has replaced this course.
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Advanced Placement Economics is a college level course combining Macroeconomics (the principles of economics that apply to an economic system as a whole) and Microeconomics (the principles of economics that apply to the functions of individual decision makers.)

The curriculum for this demanding course is a nationally prescriptive core designed by the College Board in preparation for an exam administered in May to all students taking this course. Successful completion of this exam could result in college credit granted by over $80 \%$ of colleges and universities throughout the United States.

Students should have above average writing, reading, and analysis skills, a B+/A- average in Social Studies courses, and the recommendation of their Sophomore or Junior Social Studies teachers and Department Coordinator. Students may take only one Economics course (Introduction to Economics, Beginning Economics, Macroeconomics, Microeconomics, or AP Economics).

Summer reading is required for this course.

## 649 Beginning Economics Honors <br> 11-12 Year <br> Credits: 5

In the past this course was offered as Introduction to Economics (1 semester) or Microeconomics/Macroeconomics Honors ( 1 semester), but has been combined to be able to offer it at a more challenging level.

This is a full year elective is an excellent prerequisite for economics on the college level. Units reviewed will include: the basics of economics, Macroeconomic and Microeconomic principles of economics, the interdependence and gains from trade, the market forces of supply and demand, the design of the tax system, the measuring of a nation's income and cost of living, the growth of money and inflation, and the function of securities markets, as well as how mortgages and vehicles work.

Students will complete a group project where they study a company and follow its performance. Students will also complete a group project where they study a country and its interaction with the world. Students may take only one Economics course (Beginning Economics Honors or AP Economics).

A recommendation from a Sophomore or Junior Social Studies teacher is required.
This course has replaced three previously offered courses "Introduction to Economics," "Macroeconomics," and "Microeconomics" which are no longer being offered on their own.

This Political Science course introduces students to the basic political theories, philosophies, and ideologies that have shaped world politics and international relations. The course analyzes, compares, and assesses theories and concepts put forth by prominent political thinkers. It also examines how and where these ideas have been put into practice and how they have affected the lives of people worldwide.

This course is designed to allow students to critically evaluate information, debate and discuss the merits and disadvantages of political systems and beliefs, and to form and defend their own opinions. Students in this class will be required to read, interpret, and analyze significant political writings, so they should have a strong interest in political science.

This course is not being offered in 2009-2010.

The objective of this course is to help students develop an awareness of and respect for the concept of the United States as a "nation of laws." Course emphasis is placed on the study of the structure and operation of the federal and state court systems, analysis of the theories of corrections, and a review of the Constitutional guarantees of the Bill of Rights. A great deal of attention is given to the problems of criminal behavior and law enforcement at the state level. The dilemma of security vs. freedom is explored in detail and attempts to deal with the special problems of adolescents under the law age.

Semester
Credits: 2.5
This course is for students who have an interest in connecting their own life and personal story to historical events for life-long lessons. Through an in-depth examination of conformity, prejudice, stereotyping and discrimination, students will understand modern history in the context of their own lives. This course will explore the role of the individual in society, with a focus on the many influences that led to the Holocaust and other modern-day genocides. Students will be exposed to the material through engaging readings, extensive primary source materials, video, other media and the life experiences of their classmates. Students are assessed through personal reflection, writing and project-based work.

Semester Credits: 2.5

- This course is not being offered in 2009-2010. "Modern Problems and Global Politics" has replaced this course.


## 662

Introduction to Psychology
12 Semester
Credits: 2.5

- This course is not being offered in 2009-2010. "Beginning Psychology Honors" has replaced this course.
- This course is not being offered in 2009-2010. "Beginning Psychology Honors" has replaced this course.


## Beginning Psychology Honors

In the past this course was offered as Introduction to Psychology (1 semester) or Behavioral Science Honors (full year), but has been combined to be able to offer it at a more challenging level.

This is a full year elective that examines motivation, learning and behavior of human beings in a variety of contexts, seeking to answer questions such as How and why do we make certain decisions?, How much control do we have over how our lives develop?, and How is one's personality determined? It enables students with an interest in these fields to undertake a rigorous year long study of human and animal behavior. Students may take only one Behavioral Science Course (Beginning Psychology, or AP Psychology).

This course centers around class discussion and reflective writing primarily through formal papers, the completion of reflective writing assignments, and class participation.

A recommendation from a Junior Social Studies teacher is required.
This course has replaced two previously offered courses "Introduction to Psychology" and "Behavioral Science Honors" which are no longer being offered on their own.

This course is designed as a practicum for students who want an opportunity to contribute directly to the community in which they live. The major part of a student's participation consists of a placement in the field for 4 hours per week. Students will have a wide range of placement opportunities in Belmont and beyond, including schools, nursing homes, hospitals, and shelters.

Additional weekly requirements for the course will include a classroom session, and reflective journals and essays. Each section will design and implement one group service project a year, which requires students to identify a cause of their own choosing, examine feasibility, develop strategies to implement the project and see it through to completion. Past projects have included collection and distribution drives for the Lost Boys of Sudan, a t-shirt fundraiser for the Herman Taylor III Memorial Fund, and an afternoon of activities for a local shelter. Grading will be based on a combined evaluation by the teacher and the placement agency.

This course does not count toward the community service requirement (40 hours) for graduation.

- This course is not being offered in 2009-2010. "Modern Problems and Global Politics" has replaced this course.


## Modern Problems and Global Politics Honors

11-12 Year
Credits: 5
In the past this course was offered as two single-semester courses, but has been combined to be able to offer it at a more challenging level. The first semester analyzes the major issues and concerns of on the domestic front, while the second semester analyzes the major issues and concerns in the international arena.

Semester 1 units reviewed will include: terrorism and the War on Terror, crime and punishment, race and racism, American politics, and additional current issues. Semester 2 units reviewed will include: theory and application of major political and economic ideologies, terrorism, military conflict, foreign policy, international trade, and environmental concerns.

Students will examine the issues selected, conduct research to gain further knowledge of the subject, review the arguments of opposing sides, and then form their own ideas and opinions. Students enrolled in this course will be required to use resources beyond the classroom, such as the videos, the library and the Internet.

This course has replaced two semester-long courses "Modern Problems" and "Global Politics" which are no longer being offered on their own.


