## BELMONT HIGH SCHOOL



## PROGRAM OF STUDIES <br> $$
2014-2015
$$

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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## Korean

## 이 문서나 기타 학교 인쇄물을 읽는데 도움이 필요하신다면， 건물 책임자에게 부탁하여 번역 도움을 반으십시오．

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## Important Phone Numbers

| Main Office | $\underline{993-5901}$ |
| :--- | :--- |
| Dan Richards, Principal |  |
| John Muldoon, Asst. Principal |  |
| Sherri Turner, Asst. Principal |  |
|  |  |
| Athletic Office | $993-5930$ |
| Art | $993-5993$ |
| Attendance | $993-5999$ |
| Community Service | $993-5981$ |
| English | $993-5940$ |
| Foreign Language | $993-5950$ |
| Fine and Perf. Arts | $993-5990$ |

# Belmont High School Core Values and Beliefs 


#### Abstract

Belmont High School, in partnership with our community, provides students with outstanding educational opportunities for them to reach their intellectual, creative, personal, civic, and social potentials. Together we strive to create and maintain a safe, supportive environment in which all students feel valued and respected as they become successful, life-long learners and responsible citizens in a diverse and changing world.


## $21^{\text {st }}$ Century 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:

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:

Coordinator of Section 504 for Students:

Coordinator of Section 504 for Employment:

Ms. Janice Darias, Assistant Superintendent 617-993-5410
Mr. Ken Kramer, Director of Student Services 617-993-5440
Mary Pederson, 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 | 20 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 required
- Grade 11: Positive Decision-Making required and one additional Physical Education Credit.*
- Grades 10 and 12: 2 Credits of Wellness Electives and/or Physical Education options Community Service - 40 Hours
*Physical Education changes will begin with the class of 2013.
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. 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. Teachers will 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 the course placement review process. Course selection changes must be initiated and completed during the spring selection process; changes after this time will only be considered in extreme circumstances.

## 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 must complete a Placement Review 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 by the due dates outlined in the spring course selection materials. Guidance will forward the forms to the appropriate Department Director. The Department Director may contact the parent/guardian depending on the nature of the request. Students will remain in their originally scheduled courses until they have received official notification from the guidance counselor to enter the new course.

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

## Course Level Change Once The School Year Has Begun

There is no Add/Drop period at the high school. Course changes will only be considered for students who are misplaced in terms of their ability relative to the level of the course in which they are currently enrolled. To move down, misplacement will be evidenced by a lack of academic progress despite consistent effort and regular attendance at extra help sessions. To move up, students will have to achieve an A+ for the first quarter grade in their current class. In addition:

- Course changes will only be considered during the two weeks following the end of first quarter
- Must meet the approval of the current teacher and associated director.
- May not be granted if moving the student causes sections to be over or under enrolled. Note: Changes outside the two week period will only be considered for extreme circumstances and must bear administrative approval.
- 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:
- 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. In the extreme case that 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 $10^{\text {th }}, 11^{\text {th }}$, and $12^{\text {th }}$ graders. 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 interest through another academic institution (including approved online courses). Students will need to secure the guidance of an in-school advisor who is willing to mentor and assist the student. Independent Study courses may not replicate the existing curriculum at Belmont High School.

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

Additional information about the proposal submission process, student responsibilities, and grading and credits is available in the Main Office and published in the Program of Studies.

To ensure the quality and integrity of the independent study program beginning with the 2014-2015 school year, only approved courses offered by academic institutions will be considered for independent study credit.

## Proposal Submission Process <br> Your Proposal

- An Independent Study Proposal form must be completed by the student and clearly indicate the topic of the course or program that will be undertaken. In additions, the timing or meetings with the In-School Advisor should be included.


## 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

- 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. The director approving the independent study has final say as to the level of the course.
- The number of credits awarded is typically 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


## Global Certificate Program

Program Description The Global Certificate Program provides students with an opportunity to distinguish themselves by demonstrating global competency. During their four years at Belmont High School, students will complete specific coursework, an interdisciplinary portfolio of projects and reflections, and a summative global action project. The program is voluntary and open to all students. It will help them develop $21^{\text {st }}$ century skills and global awareness, preparing students for life after BHS.

## The Global Certificate Program seeks to:

- Better prepare students for an interconnected world
- Give students the opportunity to develop an interest and expertise in a global issue or culture
- Provide interdisciplinary learning experiences
- Create experiential and real world learning opportunities
- Reinforce the development of $21^{\text {st }}$ century skills such as problem solving, critical thinking, research and analysis, as well as oral and written communication


## Requirements

Coursework:

- Four years of Foreign Language
- A globally oriented elective (for example: AP Environmental Science, Global Leadership, Economics, Current Issues and Global Politics, World Music, Independent Study)

Portfolio:

- Four Globally Oriented Projects from the standard BHS curriculum
- Reflections for each project

Global Action Project:

- Semester course
- Students must research, design, and implement a project that positively impacts a community

Recognition A student's transcript will denote completion of this program

# 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

Grade 10
Grade 11
Grade 12

## Core Courses

- Coming of Age (CP/H)
- Transitional English
- Global Literature (CP / H)
- Transitional English
- Reflections on the American Dream (CP / H)
- Transitional English
- English Tutoring 11
- New comer English
* Advanced Grammar
* Advanced Grammar (H)
* Creative Writing
* Public Speaking/Debate
- Search for Identity (CP)
- Experiments in Genre (H)
- English Literature and Composition (AP)
- Transitional English


## Elective Courses

- English Tutoring 9
- New comer English
- English Tutoring 10
- New comer English
* Advanced Grammar
* Advanced Grammar (H)
* Creative Writing
* Public Speaking/Debate
- English Tutoring 12
- New comer English
* Advanced Grammar
* Advanced Grammar (H)
* Creative Writing
* Public Speaking/Debate

> English - 4 year
> requirement ( 21 credits)
*not offered in 2014-15
110 English 9: Coming of Age
Year Credits: 5

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 (one of three young adult novels chosen by the English department for their connection to class themes), study the beauty of evocative descriptive writing while reading Cisneros's The House on Mango Street, and learn the fundamentals of extended literary analysis and analytical writing while reading The Lord of the Flies. Students also read and analyze short stories and Catcher in the Rye, deepening their understanding of literary motifs and archetypes. Students study a variety of 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. Each quarter students independently read a work of fiction from a list of coming of age novels. 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. Throughout the year, students study vocabulary and writing conventions and complete a variety of outside reading assignments. Summer reading is required.

This honors course concentrates on analytical 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 analytical writing assignments. In the first quarter, students explore their summer reading (The Lord of the Flies and Kindred) in depth, focus intensively on building their analytical writing skills, and develop an understanding of the archetypes of romance through short stories. In the second quarter, students study Great Expectations with a focus on literary motifs. In the third quarter, students explore Shakespeare's sonnets in preparation for their study of Romeo and Juliet. The study of a modern novel (The Catcher in the Rye or The Chosen) and contemporary, multicultural poetry in the fourth quarter completes the year. 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 and the conventions of writing are also aspects of this course. Summer reading is required.

## 113 English 9 Tutoring <br> 9 <br> Year <br> Credits: 2.5

English Skills Development is an elective course supplementing the regular English curriculum in $9^{\text {th }}, 10^{\text {th }}, 11^{\text {th }}$, and $12^{\text {th }}$ grades to re-teach, reinforce, and support writing and reading skills being taught in the required grade-level course. Students in this year-long, four-mod course will receive targeted instruction designed to meet their particular needs and support the work being done by their classroom English teachers. In addition to working on the regular English curriculum, students in the $12^{\text {th }}$ grade section will focus on preparing the senior thesis, students in the 11th grade section will do additional SAT practice, and students in the $9^{\text {th }}$ and $10^{\text {th }}$ grade will work on MCAS test preparation. Students will be placed in this course by the English Director based on the recommendation of the previous year's teacher as well as their past MCAS scores.

120 English 10: Global Literature
10
Year
Credits: 5
The literature program of this course examines the theme of the moral consequences of human action from different cultural perspectives. After working with their required summer reading (Early Autumn), students begin their study of the tragic hero with the reading of Sophocles' Oedipus Rex and Shakespeare's Macbeth. Students will contrast the classic hero with the modern anti-hero in Slaughterhouse-Five. They examine another perspective on moral action through Khaled Hosseini's A Thousand Splendid Suns, which considers the treatment of women under the Taliban in Afghanistan. Another unit is devoted to persuasive writing about a contemporary controversial issue to develop skills in argumentation and rhetoric, accompanied by a library research unit and a non-fiction independent reading assignment. 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, writing conventions, and literary analysis are integral parts of the curriculum. Summer reading is required.

122 English 10 Honors: Global Literature
10 Year
Credits: 5

The literature program of this honors course examines the theme of the moral consequences of human action from different cultural perspectives. This challenging course requires considerable reading and frequent text-based analytical writing assignments. After working with their required summer reading (Oedipus Rex), students begin their study of the hero in literature with Shakespeare's Macbeth and Achebe's Things Fall Apart. Students will contrast the classic hero with the modern anti-hero in Slaughterhouse-Five. They examine another perspective on moral action through Khaled Hosseini's $A$ Thousand Splendid Suns, which considers the treatment of women under the Taliban in Afghanistan. Another unit is devoted to persuasive writing about a contemporary controversial issue to develop skills in argumentation and rhetoric, accompanied by a library research unit and a non-fiction 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, writing conventions, and literary analysis are a regular part of this course. MCAS preparation is included. Summer reading is required.

123 English 10 Tutoring
Year
Credits: 2.5
English Skills Development is an elective course supplementing the regular English curriculum in $9^{\text {th }}, 10^{\text {th }}, 11^{\text {th }}$, and $12^{\text {th }}$ grades to re-teach, reinforce, and support writing and reading skills being taught in the required grade-level course. Students in this year-long, four-mod course will receive targeted instruction designed to meet their particular needs and
support the work being done by their classroom English teachers. In addition to working on the regular English curriculum, students in the $12^{\text {th }}$ grade section will focus on preparing the senior thesis, students in the 11th grade section will do additional SAT practice, and students in the $9^{\text {th }}$ and $10^{\text {th }}$ grade will work on MCAS test preparation. Students will be placed in this course by the English Director based on the recommendation of the previous year's teacher as well as their past MCAS scores.

130 English 11: Reflections on the American Dream
Year
Credits: 5
Students in English 11 explore how writers have defined and redefined the American experience and how their visions of America and Americans have evolved. The focus of this college-preparatory course is the study of American literature, including Thoreau, Emerson, Whitman, Dickinson, Douglass, Twain, Chopin, Hurston, Fitzgerald, Miller, and Wilson. The authors read enable students to understand the imagery and recurring themes that define American literature. The practice of close reading is emphasized in all literature units, while the tailoring of style to a particular audience and purpose characterizes writing assignments. Students are also introduced to a variety of critical lenses and the use of secondary sources in supporting an original argument about 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 and prepare for the senior thesis. Summer reading is required.

## 132 English 11 Honors: Reflections on the American Dream <br> Year <br> Credits: 5

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 and imagery. 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, Douglass, Twain, Crane, Chopin, Hurston, Fitzgerald, Hemingway, Miller, and Morrison. The practice of close reading is emphasized in all literature units, while the tailoring of style to a particular audience and purpose characterizes writing assignments. Students are also introduced to a variety of critical lenses and the use of secondary sources in supporting an original argument about literature. Students write frequent literary analysis essays, short analyses of poems or passages, and personal, reflective pieces. Students integrate ideas from literary criticism into their essays and prepare for the senior thesis. Some SAT preparation work is built into the curriculum. Summer reading is required.

## 133 English 11 Tutoring

Year
Credits: 2.5
English Skills Development is an elective course supplementing the regular English curriculum in $9^{\text {th }}, 10^{\text {th }}, 11^{\text {th }}$, and $12^{\text {th }}$ grades to re-teach, reinforce, and support writing and reading skills being taught in the required grade-level course. Students in this year-long, four-mod course will receive targeted instruction designed to meet their particular needs and support the work being done by their classroom English teachers. In addition to working on the regular English curriculum, students in the $12^{\text {th }}$ grade section will focus on preparing the senior thesis, students in the 11th grade section will do additional SAT practice, and students in the $9^{\text {th }}$ and $10^{\text {th }}$ grade will work on MCAS test preparation. Students will be placed in this course by the English Director based on the recommendation of the previous year's teacher as well as their past MCAS scores.
140 English 12: Search for Identity $\quad 12 \quad$ Year $\quad$ Credits: 6

This college-preparatory course is intended as a culmination of students' previous training in reading, writing, speaking, and analyzing. It focuses on the question, "ls identity defined more by actions or by words?" and considers it through the lens of Shakespearean and existentialist drama as well as post-modern literature. Emphasis is placed on Tim O'Brien's The Things They Carried, Sartre's No Exit, and Shakespeare's Hamlet, alongside poetry and comedy. Additionally, students spend a great deal of time on a year-long independent research and writing project. The senior thesis is a chance to pursue an individual interest, even a passion, within the field of literature. Students read three works of fiction and six to eight pieces of literary criticism on a single topic or author, becoming experts in their own right. The thesis itself is a lengthy, researched, documented paper prepared under the direction and guidance of the senior English teacher. Summer reading is required for the course (The Things They Carried) and for the senior thesis.

143 English 12 Tutoring $12 \quad$ Year | Credits: 2.5 |
| :--- | :--- | :--- |

English Skills Development is an elective course supplementing the regular English curriculum in $9^{\text {th }}, 10^{\text {th }}, 11^{\text {th }}$, and $12^{\text {th }}$ grades to re-teach, reinforce, and support writing and reading skills being taught in the required grade-level course. Students in this year-long, four-mod course will receive targeted instruction designed to meet their particular needs and
support the work being done by their classroom English teachers. In addition to working on the regular English curriculum, students in the $12^{\text {th }}$ grade section will focus on preparing the senior thesis, students in the 11th grade section will do additional SAT practice, and students in the $9^{\text {th }}$ and $10^{\text {th }}$ grade will work on MCAS test preparation. Students will be placed in this course by the English Director based on the recommendation of the previous year's teacher as well as their past MCAS scores.

## 144 English 12 Honors: Experiments in Genre

Year
Credits: 6
This course is intended as a culmination of students' previous training in writing, reading, speaking and analyzing. English 12 Honors explores fiction, poetry, comedy, and drama, with an emphasis on experiments in these genres. Students apply their understanding of genre conventions to analyze how writers have contravened and subverted these structures to create new meaning. Emphasis is placed on Tim O'Brien's The Things They Carried, Sartre's No Exit, Shakespeare's Hamlet, and a Modernist novel, alongside poetry and comedy. Additionally, students spend a great deal of time on a year-long independent research and writing project. The senior thesis is a chance to pursue an individual interest, even a passion, within the field of literature. Students read four works of fiction and eight pieces of literary criticism on a single topic or author, becoming experts in their own right. The thesis itself is a lengthy, researched, documented paper prepared under the direction and guidance of the senior English teacher. Summer reading is required for the course (The Things They Carried) and for the senior thesis.

## 148 Advanced Placement: English Literature and Composition $12 \quad$ Year $\quad$ Credits: 6

This course is intended as a culmination of students' previous training in writing, reading, speaking and analyzing. AP English explores fiction, poetry, comedy, and drama, with an emphasis on experiments in these genres. Students apply their understanding of genre conventions to analyze how writers have contravened and subverted these structures to create new meaning. Emphasis is placed on Tim O'Brien's The Things They Carried, Sartre's No Exit, Shakespeare's Hamlet, and a Modernist novel, alongside poetry and comedy. 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. Additionally, students spend a great deal of time on a year-long independent research and writing project. The senior thesis is a chance to pursue an individual interest, even a passion, within the field of literature. Students read four works of fiction and eight pieces of literary criticism on a single topic or author, becoming experts in their own right. The thesis itself is a lengthy, researched, documented paper prepared under the direction and guidance of the senior English teacher. Summer reading is required for the course (The Things They Carried) and for the senior thesis.

150 Transitional English 9-12 Year Credits: 5

Transitional English is a full-year course for English language learners which prepares them with the reading, writing, and analytical skills to join the regular English classroom upon completion. Emphasis is placed on reading and discussing works of fiction and developing formal writing and oral presentation skills. Literature commonly studied in this course includes works by Steinbeck, Hemingway, and Hansberry, as well as young adult fiction. Vocabulary and grammar is reviewed throughout. When students demonstrate sufficient English proficiency, they will have the opportunity to move into an appropriate grade-level English course.

## ELECTIVES

## 156 Advanced Grammar (not offered in 14-15)

10-11 Semester Credits: 2.5

## 157 Advanced Grammar H (not offered in 14-15)

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.

151 Creative Writing 9 (not offered in 14-15)
10-12 Semester Credits: 2.5

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.

Newcomer English is designed to provide "Survival English" skills, focusing first on social/instructional language and then on academic language in the content areas, to students with little to no knowledge of the English language. Instruction will be tailored to the student's needs and may include letter formation, decoding and fluency work, and basic English syntax and word order, as well as extensive vocabulary, English grammar, and pronunciation work. The course will also introduce students to the most important features of American culture and American schooling. Students will develop basic English proficiency in speaking, listening, reading, and writing (reaching approximately WIDA Level 3). Students may exit from the class when the teacher determines this basic level of proficiency has been reached.

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 evaluations.

## DEPARTMENT OF FINE AND PERFORMING ARTS

The Department of Fine and Performing Arts provides students with the skills, knowledge and opportunities for expression in art, music, theatre and dance that enable them to participate actively as consumers and makers of the arts in a diverse global community. In addition, they develop skills in creative, innovative and critical thinking, collaboration, leadership and responsibility that will help them succeed as productive workers and good citizens in the $21^{\text {st }}$ century, who at the same time, can lead balanced and purposeful lives whether at or away from work.

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 art, music, theatre and dance to meet the needs and interests of the student body. Although it is not mandatory, we highly recommend that students complete two years of arts study. The department also offers a broad range of co-curricular non-credit bearing activities that meet after school. Note that extracurricular performing arts activities cannot be used to fulfill the arts graduation requirement.

## Grade 9

- Draw ing \& Painting 1
- Ceramics 1
- Photography 1
- Sculpture 1
- Mixed Media
- Figure Sculpture
- Freshman Women’s Chorus (CP/H)
- Men's Chorale (CP/H)
- Wind Ensemble (H)
- Symphonic Band (CP/H)
- Concert Orchestra (CP/H)
- Chamber Orchestra (H)
- Music Technology
* History of Popular Music
* Gospel Choir (CP/H)
- Piano Lab
- Guitar
* World Music
* Dance
* Theater
* The Modern Actor


## Grade 10

- Draw ing \& Painting 1
- Draw ing \& Painting 2
- Ceramics 1
- Ceramics 2
- Photography 1
- Photography 2
- Sculpture 1
- Sculpture 2 (H)
- Mixed Media
- Figure Sculpture
- 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 Technology
- History of Popular Music
- Music Theory (AP)
*Gospel Choir (CP/H)
- Piano Lab 1
* Piano Lab 2
- Guitar
* History of Popular Music
* World Music
* Dance
* Theater
* The Modern Actor


## Grade 11

- Draw ing \& Painting 1
- Draw ing \& Painting 2
- AP Studio Art: Draw ing Portfolio
- Ceramics 1
- Ceramics 2
- Ceramics 3 (H)
- Photography 1
- Photography 2
- Photography 3 (H)
- Sculpture 1
- Sculpture 2 (H)
- Mixed Media
- Figure Sculpture
- 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 Technology
- History of Popular Music
- Music Theory (AP)
* Gospel Choir (CP/H)
- Piano Lab 1
* Piano Lab 2
- Guitar
* History of Popular Music
* World Music
* Dance
* Theatre
*The Modern Actor


## Grade 12

- Draw ing \& Painting 1
- Draw ing \& Painting 2
- AP Studio Art:Draw ing Portfolio
- AP Studio Art: 2-D Design
- Ceramics 1
- Ceramics 2
- Ceramics 3 (H)
- Photography 1
- Photography 2
- Photography 3 (H)
- Sculpture 1
- Sculpture 2 (H)
- Mixed Media
- Figure Sculpture
- 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 Technology
- History of Popular Music
- Music Theory (AP)
* Gospel Choir (CP/H)
- Piano Lab 1
* Piano Lab 2
- Guitar
* History of Popular Music
* World Music
* Dance
* Theatre
* The Modern Actor
*not offered in 2014-15


## VISUAL ARTS

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. No Prerequisite

## 803 Drawing and Painting 2

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

## Advanced Placement Studio Art - Drawing Portfolio

 11-12 Year Credits: 5The 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 Portfolio

## 12 Year Credits: 5

This Advanced Placement course in Studio Art Drawing: Two-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

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. No Prerequisite

Ceramics 2 is designed for students who have completed Ceramics 1 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

11-12
Year
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
9-12 Year 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 35mm camera with manual adjustments. No Prerequisite

## 817 Photography 2

10-12 Year
Credits: 5

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

## Photography 3 Honors

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. No Prerequisite

In this class students will use the human and animal figure in clay, plaster, wood, wire and stone as a departure point for original and expressive works in three dimensions. Students will use both additive and reductive techniques to represent the figure realistically, expressionistically and abstractly. This course will build on prior knowledge of working in three dimensions and expand their knowledge of materials and techniques while focusing on the figure as a source for inspiration.

## No Prerequisite

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 head, stone carving, public sculpture as well as design projects in architecture, product design and fashion. Students will research ideas found in historical and contemporary art to be used as a departure point for their own original work Students will use this body of work for exhibition and the development of a portfolio.

Prerequisite: Sculpture 1

## 804 <br> Mixed Media: Printmaking, Bookmaking and Collage <br> 9-12 Year Credits: 5

Sources for imagery will include the human figure, landscape, abstraction, advertising and design. Printmaking techniques in wood block carving, collagraph, monoprint and etching will be explored as well as combinations of techniques in collage to create original works of art inspired by contemporary art and art movements. Projects will include books, prints and mixed media works that will incorporate photographic imagery, painting, drawing and sculpting techniques. Students will be exposed to different trends in contemporary art and be encouraged to pursue their own interests.

## MUSIC

858 Freshman Women's Choir
9
Year
Credits: 5

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.

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.

996

## Chamber Singers Honors

10-12 Year
Credits: 5
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

## 896 Wind Ensemble Honors <br> 9-12 Year <br> 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, Winter Band Concert, Spring Band Concert, "POPS" Concert, graduations, and at various local, state, and national festivals. Participation in all scheduled performances is required.

Prerequisite: Permission of the instructor

## 864 Symphonic Band <br> 9-12 Year <br> Credits: 5

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 is open to continuing string players in grades 9-12. The Orchestra performs string and full orchestra music from a range of historical periods and twentieth century, including jazz and eclectic styles. Students will study the different bowings, articulations, dynamics, keys and nuances associated with each composition. 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 two semester playing reviews, two brief writing assignments (1 per semester), and in-class playing quizzes.

- 893 Concert Orchestra Honors - students must complete a playing review each quarter, in addition to the criteria above.
- 899 Chamber Orchestra Honors - entrance is by September audition and permission of the instructor; all students perform in Concert Orchestra and Chamber Orchestra for the year. Chamber Orchestra requires attendance at one additional mod per week. Individual playing reviews are held each quarter with required repertoire. In addition, students will play in small chamber ensembles for a Winter performance.

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 Technology, or choral or instrumental ensemble and permission of the instructor of one of the three possible prerequisite courses.

Gospel Choir (not offered in 2014-15)
9-12
Semester Credits: 2.5
This choral ensemble is dedicated to African American music traditions of the $20^{\text {th }}$ century. This course is a performance-based class for students with an interest in studying Gospel music as well as its influences, including R\&B and blues. Students will be taught how to authentically perform with appropriate vocal production and style. There will be discussion and listening of great singers/artists of blues, R\&B, gospel and hip hop idioms. No Prerequisite

- 837 Gospel Choir Honors - students must complete additional requirements as assigned by the instructor.

836 Guitar $9-12 \quad$ Semester Credits: 2.5

Learn to play guitar! In this semester course offering, students will learn the basic fundamentals of playing the acoustic guitar. Students will learn to play basic chords and melodies, with an emphasis on classic pop and rock music, as well as American folk music. The course will also include instruction in reading and notating music. Guitars and method books will be provided. Students will be expected to practice outside of class, as they will be graded on their progress. This course is open to all students, regardless of their musical experience or background. Students need not know how to read music - we'll teach you! No Prerequisite

794 History of Popular Music (not offered in 2014-15)
9-12 Semester Credits: 2.5

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 60 s and 70 s 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

866 Music Technology
9-12 Year Credits: 5

Students in this course will use synthesizers, computer software and digital technology to develop skills in composing, arranging and recording music. Through the use of technology in conjunction with the basic fundamentals of music theory, students will be able to take their own musical ideas to a higher level of artistry. This course is open to all students in grades 9-12 regardless of their musical background. Successful completion of Music Technology is a prerequisite for AP Music Theory. No Prerequisite.

Learn to play piano! This course is designed for students with little or no experience with piano. The focus of this program is on reading and performing standard music notation, basic level piano repertoire, piano technique, sight-reading, improvisation, and basic harmony and music theory. Students will explore some of these topics through the use of the computer and music software. This course is open to all students, regardless of their musical experience or background. Students need not know how to read music- we'll teach you! No Prerequisite

841 Piano Lab 2 Honors (not offered 2014-15)
9-12 Semester Credits: 2.5

This course is a continuation of Piano Lab 1, and addresses all topics covered in Piano Lab 1 at a more advanced level. In addition, students will develop music composition skills using the lab's computer software. Successful completion of Piano Lab 2 is a prerequisite for AP Music Theory.

Prerequisite: Piano Lab 1, or permission of instructor

873 World Music (not offered in 2014-15)
9-12 Semester Credits: 2.5

In this one-semester course, students will be exposed to the exciting musical traditions of people throughout the world. Experimenting with authentic instruments, and learning hands-on from local artists, students will explore the music of Asia, Africa, South America, Celtic traditions, and European folk music. The class will also draw upon the cultural backgrounds of Belmont High School students. Field-trips and workshops to hear performances outside of school may be planned. No Prerequisite

## THEATRE

*** Acting 1
9-12
Semester Credits: 2.5

A fast paced workshop format designed to develop and strengthen acting, observation and listening skills, through exercises in creative movement, vocal work, improvisation, creative dramatics, pantomime and theater exercises. The central focus of this beginning level class is to build ensemble within the class and begin to reflect on our own inner resources as an actor. No Prerequisite
*** Introduction to Technical Theater and Design $\quad 9-12 \quad$ Semester Credits: 2.5

This course is designed to give students an overview of core concepts and elements of theatrical design. The course will combine study of theater history, dramatic analysis of text and theory with practical work in all areas of design, including scenic design, lighting, costumes and sound. It will focus on understanding the role of a designer in executing an artistic vision for a production, from initial reading of the script to performance. In each unit, students will learn about an area of design through reading, lecture and hands-on work in the theater and then be asked to apply that understanding in the creation of a design proposal for an assigned dramatic text. The class will include visits from guest artists working professionally in all areas of theatrical design, and a field trip to see a professional theatrical production. Students in the class will be encouraged to join the crew for one of the Performing Arts Company productions to gain further practical experience.

No Prerequisite
*** Advanced Acting, Dramatic Literature \& Directing $10-12 \quad$ Year $\quad$ Credits: 5

Building on Acting 1, this advanced class strives to complete the actor's portfolio with an emphasis on acting, analysis of dramatic literature and principles of directing. Students will explore various methods/styles of acting through in-class scene study and monologue prep. Students will combine acting training with study of dramatic literature, from classical to contemporary, including Greek Drama, Shakespeare and Modern American Drama. This culminating theater class at the high school will introduce the acting student to the world of directing, though script analysis, production design and practical directing work. Members of the class will be given first preference for directing slots in the Spring One-Act

Festival, which is performed for a public audience. Advanced students will present portfolios for review each term, and present regularly both in class and for the public.

Prerequisite: Acting I, or with written permission from course instructor.

Theatre 101 (not offered in 14-15)
9-12
Year
Credits: 5

All things theatre! Regardless of what we choose to become, we will all play a variety of roles throughout our lifetime, requiring us to constantly adapt, express, react, improvise, and develop a personal voice. This course is a performance-based course that is designed to explore the skills and concepts necessary to create theatre. It includes an introduction to the elements of theatre performance, acting techniques, improvisation, production design and technical elements of theatre, directing, topics in contemporary theatre, critiquing, and collaborative playwriting. This course is also designed to enhance skills in reading, writing and concentration through the study of drama and human behavior. Students will explore these topics through study and performance of dramatic literature, individual and group projects, and writing and performing original works. Students' physical, vocal, imaginative skills will be developed through daily theatre exercises. They will develop greater self-confidence through theatre study, while developing their presentation and performance skills. Students have the opportunity to participate in the New England theatre Conference in the fall. No Prerequisite

792 The Modern Actor Honors (not offered in 14-15) $\quad$ 10-12 $\quad$ Year $\quad$ Credits: 5
The Modern Actor is a continuation of Theater 101, building understanding and application of more complex language and dramatic literacy skills. Students will be challenged through a variety of activities and projects that will integrate various styles of dramatic literature, and schools of acting and directing. They will refine techniques in voice, gesture, and movement. Emphasis will also be placed on refining improvisational skills, in an effort to access emotional depth of character while on stage, and develop greater emotional awareness. In addition, students will also work on projects that investigate the nature of drama, and its voice and intentions in the context of a variety of social and cultural issues. Students will have the opportunity to attend the New England Theatre Conference in the fall, the Emerson High School Festival in January, and BHS Diversity week in February/March.

Prerequisite: Theatre 101 (formerly Introduction to Theatre) or permission of the instructor

## DANCE

Students will develop skills and techniques related to a variety of dance forms, including traditional ballet, jazz, modern, contemporary styles, as well as those from many different cultures and time periods. An emphasis on developing a positive body image and maintaining a healthy body are essential aspects of this course. Dance technique is easily integrated into workouts for a variety of sports. Classes will focus on dance and movement principles, kinesiology, strength building, dance history, choreography, injury prevention and stress reduction through this very expressive and creative art form.

Students in grades 10-12 may use a dance course to fulfill either a Fine and Performing Arts or a Physical Education graduation requirement. Students in grade 9 may only use this course to fulfill the Fine and Performing Arts graduation requirement. No Prerequisite
"Use what talent you possess: the woods would be very silent if no birds sang, except those that sing the best."
Henry Van Dyke

Art Music Theatre Dance

## 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> $\frac{\text { Spanish from }}{\text { Sphd }}$ or | Level 2 CP | Level 3 CP | Level 4 CP | Level 5 CP |
| school | Level 2 H | Level 3 H | Level 4 H | AP |
| Continuing <br> or Latin from <br> school | Level 2 CP | Level 3 CP | Level 4 H | AP |

Beginning a language - Heritage speakers of Chinese, French or Spanish who choose to study their heritage language should contact the Director of Foreign Languages to take a placement test. The student will be placed in the course which best matches his/her language skills.

Heritage speakers - Heritage speakers of Chinese, French or Spanish who choose to study their heritage language should contact the Director of Foreign Languages to take a placement test. The student will be placed in the course which best matches his/her language skills.

Requirement - 2 years, or 10 credit Foreign Language requirement
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.*

This course begins the sequence of the study of 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, hobbies, clothing 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 Chinese with a focus on culturally enriched conversation topics such as weather, directions, dining out and experience at a doctor's office. 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). This course continues the study of Chinese with a focus on culturally enriched conversation topics such as weather, directions, dining out and experience at a doctor's office. 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. This course is taught primarily in Chinese.

Chinese 3
Intermediate
9-12 Year
Credits: 5
This course follows the successful completion of Chinese 2 or Chinese 2 H , and continues the study of Chinese in depth. Students will acquire conversation skills in everyday topics such as vacation, community, going shopping 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.

## Chinese 3 Honors

Intermediate
Year
Credits: 5
This course follows the successful completion of Chinese 2 or 2 Honors and continues the study of 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 and one's favorite TV programs. Reading in characters is heavily emphasized. Original movies and related TV programs will be introduced as discussion topics. This course is taught primarily in Chinese.

## Chinese 4

Advanced
12
Year
Credits: 5
This course follows the successful completion of Chinese 3 College Prep or Chinese 3 Honors and offers students the opportunity to extend their studies of the Chinese language and culture in depth. The students will continue to develop their listening and speaking skills as they work to improve their ability to communicate in Chinese. Extensive reading and understanding of original materials will be introduced as well as critical essay writing in Chinese characters or Pinyin (English letter spelling). This course is taught mainly in Chinese.

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 planning. Students will be reading and writing only 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 primarily in Chinese.

## Chinese AP

Advanced
12
Year
Credits: 5
The Advanced Placement course in Chinese Language and Culture 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 Chinese 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.

210
French 1
Novice
9-12 Year
Credits: 5

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.

## 211 French $2 \quad$ Intermediate $\quad 9-12 \quad$ Year $\quad$ Credits: 5

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.

## 212 French 2 Honors Intermediate 9 - 12 $\quad$ Year $\quad$ Credits: 5

This intensive course, taught almost exclusively in French, is for students who have successfully completed French 1 (studied at the high school or at the middle school). 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 French 3 Intermediate $10-12 \quad$ Year $\quad$ 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 <br> Intermediate <br> 10-12 Year <br> Credits: 5

This is an intensive course that is taught almost exclusively in French. 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. Emphasis is placed on personal writing and communication skills.

## 215 French 4 <br> Intermediate <br> 11-12 Year <br> 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 $\quad$ Advanced 11 - 12 $\quad$ Year $\quad$ 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. This course begins the preparation for the French Advanced Placement examination.
217 French 5
Advanced
12
Year
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.

## 219

Advanced Placement French
Advanced
12
Year
Credits: 5

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
9-12 Year
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. Attention is given to the development of English vocabulary and an appreciation of Roman culture and customs.
231 Latin $2 \quad$ Intermediate $\quad 9-12 \quad$ Year $\quad$ 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. Students read prose and poetry, history and mythology. By the end of the course students are expected to have developed sufficient command to read the more sophisticated prose and poetry in the third year.
232 Latin 2 Honors $\quad$ Intermediate $\quad 9-12 \quad$ Year $\quad$ 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. The readings include stories based on history and popular myths and also original passages and poems from Latin authors and poets. By the end of this course students are expected to have accumulated the vocabulary and knowledge of grammar and syntax needed to read more sophisticated poetry of Ovid in the $3^{\text {rd }}$ year.

Credits: 5

This course follows the successful completion of Latin 2 or Latin 2 Honors. Having developed the fundamentals of Latin grammar and read guided selections of prose and poetry students are prepared to read Latin literature. The aim of the course is not just to further the students' facility in translating Latin but to deepen their understanding of the geography, politics, cultures, and history of the ancient Mediterranean.

This course follows the successful completion of Latin 2 honors or Latin 3 college prep. In this course students continue to learn the more advanced structures, grammar and vocabulary essential to the reading of Latin of moderate difficulty.
Students read selections from the Metamorphoses of Ovid with attention given to an appreciation of the Ovidian literary style, 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, Ovid, and Vergil 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.

This course follows the successful completion of Latin 4 Honors. This Advanced Placement course will prepare students to take the Advanced Placement examination in Latin. This is a college level course focused on the mastery of reading, translating, understanding, analyzing, and interpreting Latin prose and poetry in the original. Students will read major sections in both Latin and English of Vergil's epic poem, the Aeneid and Caesar's commentaries on the Gallic Wars. Both these works will be studied with attention to their contemporary political climate.

## SPANISH

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 $\quad$ Novice $\quad 9-12 \quad$ Year $\quad$ 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.

242 Spanish 2 Intermediate $\quad 9 \mathbf{- 1 2} \quad$ Year $\quad$ Credits: 5

This course follows the successful completion of Spanish 1 (studied 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 intensive course, taught almost exclusively in Spanish, is for students who have successfully completed Spanish 1 (studied at the high school or at the middle school) or Spanish 1B. 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. There is a continued study of culture in the Spanish-speaking world through the use of short readings.

Spanish 3
Intermediate
10-12 Year
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.

Spanish 3 Honors Intermediate
10-12 Year
Credits: 5

This is an intensive course that is taught almost exclusively in Spanish. 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.

246 Spanish 4 Intermediate 11 - $12 \quad$ Year $\quad$ 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.

This is an intensive course that continues the study of the Spanish language using literature from the Spanish-speaking world as a springboard for both vocabulary and grammar study. Authors are studied in relation to their social and historical contexts. 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. This course begins the preparation for the Spanish Advanced Placement examination.

## 248 Spanish 5 <br> Advanced <br> 12 <br> Year <br> Credits: 5

This course follows the successful completion of Spanish 4 or Spanish 4 Honors. Students will continue to develop their proficiency in Spanish through study of advanced grammatical structures and vocabulary themes. The course is conducted exclusively in Spanish. Students are expected to be able to integrate the tenses previously studied with new material.

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 (CP and H)


## Grade 10

- Algebra 2 (CP and H )
- Geometry (CP and H)


## Grade 11

- Algebra 2 ( CP and H )
- Pre-Calculus (CP and H)
- Statistics (AP)

Semester Offerings:

- Advanced Algebra
-Trigonometry
- Matrices and Probability
- Surveys, Statistics and Data Analysis
- Introduction to Programming(not offered '13-'14)
-Computer Spreadsheet Applications(not offered '13-'14)


## Grade 12

- Pre-Calculus (CP and H)
- Calculus
- Calculus AB (AP)
- Calculus BC (AP)
- Statistics (AP)
-Advanced Math Decision Making


## Semester Offerings:

- Advanced Algebra
-Trigonometry
- Matrices and Probability
-Surveys, Statistics and Data Analysis
-Introduction to Programming(not offered '13-14)
-Computer Spreadsheet Applications(not offered '13-'14)

Mathematics - 4 year requirement ( 20 credits)
Completion of any two semester courses is equivalent to a full year course which is credited toward graduation requirements

402
Algebra 1
9
Year
Credits: 5
This course emphasizes algebraic language, structure, concepts and skills. Major topics include: extending the properties of exponents to rational exponents, reasoning quantitatively and using units to solve problems, writing expressions in equivalent forms to solve problems including quadratic factoring, performing arithmetic operations on polynomials, creating equations that describe relationships, solving equations and inequalities in one variable, solving systems of equations including quadratics, representing and solving equations and inequalities graphically, understanding functions and function notation, interpreting and building functions and their graphs to model and solve problems, analyzing functions using different representations, constructing and comparing linear, quadratic and exponential models. Additionally in the area of statistics students will learn to summarize, represent and interpret single variables as well as two variable data sets, compute and interpret linear fits and distinguish between correlation and causation.

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

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. Additionally in the area of probability students will understand independence and conditional probability and use them to interpret data, use probability rules to compute probabilities of compound events in a uniform probability model.

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

## Geometry

9-10 Year
Credits: 5
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

$$
10-11
$$

Year
Credits: 5
This course requires 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 includes exponential and logarithmic functions, matrices and an introduction to Trigonometry. Graphing calculators are used and are required.

Successful completion of this course prepares students for Advanced Algebra and Trigonometry-427/485 or Pre-Calculus - 426

416 Algebra 2 Honors $\quad 10-11$ Year Credits: 5
This course requires a strong background in Algebra and Geometry. It 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, matrices, logarithms, exponents, and linear programming. The pace of this course is demanding requiring students to work independently and to apply concepts to open ended problems.

Successful completion of this course should prepare the student for Pre-Calculus Honors - 428.
484 Advanced Algebra *
11-12 Semester
Credits: 2.5
This course covers some 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 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, exponential and logarithmic functions, and other non-linear functions. Graphing calculators will be used periodically and are required.

485 Trigonometry*
11-12 Semester
Credits: 2.5

This course covers some of the same topics regarding trigonometry 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 completed Algebra 2. The curriculum begins with right triangle trigonometry and then moves into the unit circle and trigonometric functions, followed by graphs and applications of trigonometric functions Graphing calculators will be used periodically and are required
*Students planning to take Pre-Calculus 426 following this course must take both Advanced Algebra 484 and Trigonometry 485.

This course is an introduction to object-oriented programming using Java, a widely-used computer language in today's computing world. The course will begin with a short history of hardware and software developments leading up to today's object oriented languages and the HTML environment that hosts Java applications. Java-specific topics include: syntax, variables, data types operations, input and output, functions, parameters and classes. The course will be beneficial for students interested in pursuing a career in computer science or those just interested in being exposed to the concepts in programming. Upon successful completion of the course, students will be able to write programs that process input and output and use computer algorithms to manipulate data and make data-based decisions. Class will be project-based. Previous computer experience is not a prerequisite; however, students are required to have completed Algebra 2. Students will be expected to spend additional time in the computer lab or using remote access.

This course introduces some of the advanced features available in computer spreadsheets (specifically Excel) that can be used to store, manipulate and analyze mathematical data to solve problems and make data-driven decisions. Topics will include basic data entry, spreadsheet functions, chart functions, database functions, and automation using Visual Basic. The course will benefit any student who expects to encounter data driven projects in their future studies or careers. Upon successful completion of the course, students will be able to create a spreadsheet that uses advanced features of Excel. Class will be project-based. Previous computer experience is not a prerequisite; however, students are required to have completed Algebra 2. Students will be expected to spend additional time in the computer lab or using remote access.

This course is designed to appeal to a wide variety of students including 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 structure, manipulation, operations, and problem solving with matrices, working with determinants as well as coding and decoding using Hill Ciphers. In the area of probability topics include fundamental counting theory, permutations, combinations, Venn diagrams and conditional probability, integrated with application problems, programming and projects. 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 must have successfully completed Algebra 2. The graphing calculator is required, and is used extensively.

This course is designed to appeal to a wide variety of students including 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 sampling methods, survey design, one variable statistics, correlation and confidence intervals. Mathematics skills will be reinforced throughout the course. Students taking this course must have successfully completed Algebra 2. The graphing calculator is required, and is used extensively.

## 435 Advanced Mathematical Decision Making <br> 12 Year <br> Credits: 5

This course requires completion of Algebra 2. This is a mathematics course designed to follow Algebra I, Geometry, and Algebra II and emphasizes statistics and financial applications, as it prepares students to use algebra, geometry, trigonometry, and discrete mathematics to model a range of situations and solve problems. The diverse set of topics includes Analyzing Numerical Data, Probability, Statistical Studies, Using Functions in Models and Decision Making and Decision Making in Finance. The course also helps students develop college and career skills such as collaboration, conducting research, and making presentations.

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426 \text { Pre-Calculus } \quad 11-12 \quad \text { Year } \quad \text { Credits: } 5
$$

This course requires successful completion of Algebra 2 and Geometry. Students choosing this course should enjoy mathematical challenges. 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 and are required. 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 completion of Algebra 2 Honors - 416 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, and polar graphs. 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.

## 429 <br> Advanced Placement Statistics <br> 11-12 Year <br> Credits: 5

It is suggested that juniors and seniors interested in taking AP Statistics earn an A in Algebra 2-414 or a B+ or higher in Algebra 2 Honors - 416, Pre Calculus - 426 or Pre Calculus Honors - 428. 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.

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 AP Calculus AB exam with additional study and review.

Students are required to complete a summer packet prior to the beginning of this course.

Year
Credits: 5

Students should have a strong background in Honors Pre-Calculus entering this course. AP 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.

The Advanced Placement Calculus AB exam is expected of all students in this course.

## 434 Advanced Placement Calculus BC $12 \quad$ 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.

The Advanced Placement Calculus BC exam is expected of all students in this course.

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. This is a required course. Student progress will be monitored throughout the year on an individual basis.

## 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. This is a required course. Student progress will be monitored throughout the year on an individual basis.

## PHYSICAL EDUCATION DEPARTMENT

Students must earn 2 credits per year in Physical Education. Ninth graders must take Wellness in order to fulfill the Physical Education requirement for that year. Eleventh grade students must take Positive Decision-Making \& Life Skills and earn one additional Physical Education Credit. Physical Education requirements for students in grades 10-12 can be fulfilled through one of three options or a combination of these options. These options are available both during the school day and after regularly scheduled school hours.

Grade 12

## Core Courses

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## SEQUENTIAL CHART

- Positive Decision Making / Life Skills


## Elective Courses

-Cardiovascular Fitness \&
Conditioning
-Muscular Strength Training
\& Body Toning
-Team Sports \&
International Games
-Recreational Sports \&
Lifetime Activities
-Interscholastic Athletics
-Independent Study
in Physical Education
-Cardiovascular Fitness \&
Conditioning
-Muscular Strength Training
\& Body Toning

- Team Sports \&

International Games
-Recreational Sports \&
-Lifetime Activities
-Interscholastic Athletics
-Independent Study
in Physical Education
-Cardiovascular Fitness \& Conditioning
-Muscular Strength Training
\& Body Toning
-Team Sports \& International Games -Recreational Sports \& Lifetime Activities -Interscholastic Athletics -Independent Study in Physical Education

## COMPREHENSIVE HEALTH \& FITNESS EDUCATION: REQUIRED COURSES

## 905

## Wellness

9
Year
Credits: 2
Wellness 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.
907 Positive Decision-Making \& Life Skills: Current Teen Health Issues

Positive Decision-Making \& Life Skills is a required course for all juniors that meets twice per week for one semester. This course is an extension of the Wellness 1 course. It is a one semester course targeted to juniors. It is designed to develop more mature decision making skills than discussed in Wellness 1. The course will cover current information and pressing health issues facing teens today. The two cornerstones of the course will be decision making, particularly in the areas of risky behaviors, and also life skills. Topics that will be covered are substance use and abuse, human sexuality, healthy relationships, stress management, dealing with your emotions in healthful ways, dealing with a loss, and disease prevention through physical fitness and nutrition.
In grades 10-12, students have the four options outlined below to earn Physical Education Credit:

This course will focus on Cardiovascular Fitness \& Conditioning. Students will work to improve their heart health and overall cardiovascular fitness levels through individualized cardiovascular fitness plans. Students will use heart rate monitors and pedometers to assess and monitor their cardiovascular fitness levels and workouts during the course. The course will offer challenging aerobic workouts and conditioning through circuit training, interval training, cross training, game play, group fitness games and activities, agility and speed training, as well as how to safely use cardiovascular equipment within a fitness center. It will emphasize the principles of carrying out a physically active lifestyle to achieve Lifetime fitness. All fitness levels welcome.

## 935 Muscular Strength Training \& Body Toning <br> Semester <br> Credit: 1

This course builds off of the basic principles of strength training covered in Wellness 1. Students will review how to safely use and adjust all fitness equipment. Students will use prior knowledge to learn more advanced strength training and body toning exercises and techniques. Each student will design a personalized strength training/body toning program and set goals for themselves. Students will continually assess their progress and their programs to improve overall muscular fitness levels to achieve their goals. There will be an emphasis on using correct form and technique while using both machines and free weights in the fitness center. Students will also be introduced to functional training. It will target the core muscles through the use of resistance bands, medicine balls, stability balls, and other like equipment. Students will also assess their heart rates levels to adjust the intensity of their workouts.

936 Team Sports \& International Games
10-12
Semester
Credit: 1

This course provides students an opportunity to improve their physical fitness levels through group game play of varying team sports and international games. It also encourages students to adopt a physically active lifestyle by participating in a variety of physical activities. This course includes team sports such as Soccer, Basketball, Flag Football, Floor Hockey, Baseball/Softball and international games such as Cricket, Team Handball, Korfball, Handball (Irish), and Rounders. Basic game concepts and skills will be taught. Team strategies will be covered, as well as the history of the sports and games. No experience in these sports and activities is necessary to join the course. All abilities welcomed.

937 Recreational Sports \& Lifetime Activities $\quad 10$-12 Semester $\quad$ Credit: 1
This course provides students an opportunity to improve their physical fitness levels through participation in individual and group play of various recreational sports and backyard games. It also encourages students to adopt a physically active lifestyle by participating in a variety of lifetime activities. This course includes recreational sports/lifetime activities such as Tennis, Volleyball, Badminton, Pickleball, Ultimate Frisbee and backyard games such as Bocce Ball, Croquet, and Whiffle Ball games. Basic game concepts and skills will be taught. Team strategies will be covered, as well as the history of the sports and games. No experience in these sports and activities is necessary to join the course. All abilities welcomed.

939 Sports Medicine/ CPR \& First Aid (not offered in 2013-14) 11 \& $12 \quad$ Semester $\quad$ Credit:1
The sports medicine course is designed to provide an opportunity for the students of Belmont High School to learn some of the fundamentals of the Athletic Training Profession. The class will cover the basics of anatomy and pathologies, as well as injury prevention, recognition, treatment and rehabilitation. As well as in and out of class studies students will be required to complete observation hours in each of the in season sports.

Students receive 1 credit for each completed athletic season.
(Fall Athletics, Winter Athletics and Spring Athletics)
Note: A student /athlete who is cut from a BHS Athletic team will be given two weeks from the date of the cut to submit an Independent Study proposal for an out of school athletic team. The out of school athletic team must meet the equivalent number of practices \& contest of the current BHS program as well as the duration of the season in order to be approved.

## - Option 3:

| Independent Study in Physical Education for Non-School Physical Activity <br> Programs | Semester | Credit: 1 |
| :--- | :--- | :--- |
| 950 | Independent Study in Physical Education Semester Long | Semester |
| 952 | Independent Study In Physical Education Full Year | Year |

Students may submit a request to be allowed to fulfill the Physical Education requirement by participating in an outside fitness program. Independent Study in Physical Education may not replicate the existing curriculum at Belmont High School. Working out at a gym will no longer be an approved PE Independent Study as a student may take Cardiovascular Fitness and Training and /or Muscular Strength Training \& Body Toning which are offered during the regular school day at BHS 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. In order to elect this option, students must complete an Independent Study proposal. 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. Please refer to the Independent Study Proposal process outlined on page 6 of this program for more information. In order to receive credit for the independent study, students are responsible for submitting written verification of the required hours completed for their independent study to the Director of Physical Education no later than one week prior to the end of the semester.

## SCIENCE AND TECHNOLOGY ENGINEERING

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-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 science course. 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

## Core Courses

## Elective Courses

- Introduction to Design and Engineering (Semester Course) (not offered in '14-'15)
- Introduction to Design and Engineering (not offered in '14-'15)
- Engineering Design and Technology (CP/H)
-Computer Aided Design and Electronics (H) -Physics B (AP)
- Chemistry (AP)
- Astronomy (CP)
- Physics B (AP)
- Disease, Forensics and Technology (CP)
- Engineering Design and

Technology (CP/H)

- Computer Aided Design and

Electronics (H)

Grade 12

## Required Eective

- Biology (AP)
- Chemistry (AP)
- Physics B (AP)
- Astronomy (CP)
- Zoology of Aquatic and Terrestrial

Organisms (not offered in '13-14)

- Anatomy and Physiology (H)
- Neurobiology (H)
- Environmental Science (AP)
- Disease, Forensics and

Technology (CP)

- Engineering Design and

Technology (CP/H)

- Computer Aided Design and

Electronics (H)
-Science Ethics and Controversies (CP)

Science - 4 year requirement (20 credits)
Three core sciences plus one elective

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 must be able 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 and waves. 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.

9
Year
Credits: 5

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 and waves. Students will be prepared to successfully complete the Introductory Physics MCAS test.

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.

Prerequisite: Physics

## Year

Credits: 5
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 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.

Prerequisites: Physics and Teacher Recommendation

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.

Prerequisite: Physics and Chemistry

Year
Credits: 5

The Honors Biology course is a comprehensive and in-depth study of Biology. Students are expected to have highly developed reading comprehension, self motivated organizational and study skills, and be able 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 SAT II Biology subject test.

Prerequisite: Physics, Chemistry \& Teacher Recommendation

## Advanced Placement Biology

## 11/12

Year
Credits: 5

AP biology can be taken as a first year biology course, or as a second year course after completing Honors Biology. 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. Students who wish to take AP Biology and AP Chemistry must take one in the Junior year and the other in the Senior year.

Prerequisite: Physics, Chemistry \& teacher recommendation

## Electives

## 524 Advanced Placement Chemistry

11, 12 Year
Credits: 5
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. Students who wish to take AP Biology and AP Chemistry must take one in the Junior year and the other in the Senior year.

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

## 538

Advanced Placement Physics B
10, 11, 12
Year
Credits:5

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: Physics, strong Algebra II background and Teacher Recommendation

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 (Not offered in 12

Year
Credits: 5
'13-'14)
It is important to understand some fundamental differences between various animal groups. These differences govern the forms and lifestyles of 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 $12 \quad$ Year $\quad$ Credits: 5
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

How do drugs, sleep deprivation, or horror movies affect your brain? Students will extensively study the anatomy and physiology of the nervous system and discuss how chemicals circulating in the body can lead to thought, movement, sensation, and behavior. This course is designed to be the equivalent of a one-semester, introductory college course in Neurobiology. This course is designed to supplement the AP Psychology course (Social Studies).

Prerequisites: Chemistry \& Biology
Advanced Placement Environmental Science
Year Credits: 5

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

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 part of the year. Publications, examples and simulations will be used to illustrate the principles. The majority of the year 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

## 553 Science Ethics and Controversies

Year Credits: 5
What are stem cells? When is it okay to perform experiments on humans? What is global warming, and is it our responsibility to stop it? This course will focus on the current issues and dilemmas that scientists face, allowing students to apply what they've learned in core science classes. Through discussions, debates, research, projects, and writing, students will critically examine the science that affects our daily lives and decide their moral and ethical responsibilities as a citizen. Participation and independent motivation will be crucial.

## Prerequisites: Biology

731 Introduction to Design and Engineering (not offered in $\quad 9$-10 $\quad$ Semester $\quad$ Credits: 2.5 '14-'15)

This course introduces the arts of design and engineering with an emphasis on hand construction and the creative process. Students will explore and create electrical and mechanical systems and develop skills in design, construction, observation, revision, and documentation. The projects are generally playful and could be considered toys, but they are much richer than simple toys as the students themselves will create them and modify their behavior. Projects include a hovercraft, electro-mechanical bug, an LED quilt, a hydraulic pet, and a steam-powered boat.
Students learn and use a wide variety of materials, tools, and technologies (electrical, mechanical, pneumatic, thermal). Computers are used at times for research and documentation, but are not the focus of the course. Some homework is required.

## Prerequisite: None

| 730CP | Engineering Design and Technology College Prep or Honors | $9-12$ | Year |
| :--- | :--- | :--- | :--- |
| 732 H |  |  |  |

This course provides students with an introduction to Engineering and Technical fields. Coursework is project-based, and includes a Battling Robots competition, an Electronic Game invention, a Personal Organizer, and several smaller designs. Projects are structured around the Engineering Design Process, a process widely used by engineers, inventors and architects to solve open-ended problems. Students learn and use a wide variety of materials, tools, and technologies to construct working prototypes for all projects. Spatial understanding, technical communication, creative design, building and drawing by hand, rather than through computer technologies, are areas of focus. Topics include: engineering design, technical drawing (in both 2D and 3D), mechanisms, electro-mechanical systems, and electronic circuits. Students taking the Honors option are expected to do more independent work. There will be additional components to homework and projects where the student will be asked to go deeper into the content, skills, and processes presented in the course.

## Prerequisite: None

This course is an honors level design course. After completion of this course, students will learn how to model their designs using a modern three-dimensional, parametric design software program, "ProEngineer," and create basic programs to control lights and motors in a physical computing environment. Students will also learn how to use a rigorous design process to ensure the full development of their ideas.

Throughout the course, students will work in collaborative teams on the virtual construction of parts and assemblies using the design software. In the electronics portion of the course students will learn to program controllers that will allow them to add sensors, lights, and motors to their designs. Assessment in this course will be accomplished through regular skill quizzes, small projects, and a capstone project which will involve the virtual design, physical construction, and programming of a single module in a large chain reaction.

This course is appropriate for anyone with an interest in design using technical tools, including people considering careers as technical artists, industrial designers, engineers, architects, etc.

This course is a full-year introduction to computer coding and programming for students with an interest in computer science concepts and in learning how computers are used in several different careers. The course will include logical thinking and creativity as essential skills in computer programming, in addition to teaching language syntax, data manipulation, and programming structures such as loops and conditions.

Students are exposed to at least two computer programming languages and a variety of computer-based challenges. We start with a blocks-based programming language with good graphics and sound capabilities, such as StarLogoTNG, and use it for simulations and simple video games. We then move on to a text-based language such as Python or C , which is well suited to modeling systems and solving mathematical problems. Students will learn the interfaces, modify existing programs, then design and implement their own programs. They will develop skills in designing, modeling, creating algorithms, and implementing their ideas in a programming language.

Students are expected to have computer access outside of class.

## 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.), American Studies in grade 10 ( 1865 - Present) and Modern World History in grade 11 (1500 A.D. - 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

## Core

- World History (CP/H)


## Elective Courses

- American Studies (CP/H)
- U.S. History (AP)


## Grade 10

- Modern World History (CP/H)
- European History (AP)
- You \& the Law
- U.S. History (AP)
- You \& the Law
- Facing History \& Ourselves
(not offered in '14-'15)
- Community Service
- Beginning Economics (H)
- Economics (AP)
- Modern World Issues (H)
-Global Leadership


## Grade 12

| Skills Checklist | College Prep Students should be able to do all of the following with teacher support and scaffolding: |  | Honors Students should be able to do all of the following independently: |  | Advanced Placement <br> Students should be able to do all of the following independently: |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reading | - | Identify main ideas and relevant details | - | Identify main ideas and relevant details | O O | Identify main ideas and relevant details Identify author's intent/bias |
|  | 0 | Identify author's intent/bias | 0 | Identify author's intent/bias | $\bigcirc$ | Independently relate main ideas to broader historical concepts and themes |
|  | 0 | Reading is focused predominantly on core curriculum with primary source material largely read and discussed in class | - | Reading is focused on core curriculum and additional supplementary sources | 0 | concepts and themes <br> Comprehend primary sources independently |
|  |  |  |  |  | 0 | Synthesize large amounts of reading materials from a college level textbook at a fast pace |
| Research | 0 | Locate appropriate primary and secondary sources to support a thesis | o | Locate ap propriate primary and secondary sources to support a thesis | o | Locate appropriate primary and secondary sources to support a thesis |
|  | 0 | Synthesize research to answer a critical thinking question | o | Synthesize research to answer a critical thinking question | o | Apply and synthesize research to create and answer a critical thinking question |
| Analytical Skills | o | Identify, comprehend and apply abstract concepts Relate specific people and events to broader historical patterns and themes | o | Identify, comprehend and apply abstract concepts Relate specific people and events to broader historical patterns and themes | o Identify, comprehend and apply abstract concepts <br> - Relate specific people and events to broader historical patterns and themes <br> o Analyze historical documents and formulate sophisticated, multi-faceted arguments based on textual support |  |
|  | 0 |  | o |  |  |  |
|  |  |  |  |  |  |  |
| Writing Expectations | o | Develop a written argument and support it with appropriate examples | o | Develop a written argument and support it with appropriate examples | o | Develop a written argument and support it with appropriate examples |
|  | o | Draw written conclusions from multiple sources of information | o | Draw written conclusions from multiple sources of information | o | Draw written conclusions from multiple sources of information |
|  | o | Directed questions are previewed and writing is supported during class time with graphic organizers and prewriting activities | o | Assignments are supported with graphic organizers | o | Communicate a written understanding of the complex relationships among historical concepts and evaluate their relative importance to historical event(s) and themes |
| Mastery of material |  | Master core material Focus is on comprehension with a balance between formative and summative assessments | $\bigcirc$ | Master some material not presented or reviewed in class | o | Master extensive material not presented or reviewed in class <br> Focus is on formal, summative assessments |
|  |  |  | o | Focus is on comprehension plus analysis with a balance between formative and summative assessments | o |  |

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 will write a Freshman Research Paper to continue to develop their researching skills and methods for historical writing.

612 World History Honors
9
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 will write a Freshman Research Paper to continue to develop their researching skills and methods for historical writing.

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

## 620 Modern World History

11
Year
Credits: 5
Modern World History surveys the major historical events of the Global Community from 1600 A.D. to the present. A multi-discipline approach including politics, economics, geography, religion, art, literature, and philosophy will be utilized to gain a broader insight into the 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. All students in grade 11 must successfully complete the Junior Thesis in order to pass the course.

## 622 Modern World History Honors

Modern World History surveys the major historical events of the Global Community from 1600 A.D. to the present. A multi-discipline approach including politics, 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. All students in grade 11 must successfully complete the Junior Thesis in order to pass the course.

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

The content of this course encourages a deeper understanding of the major historical events in American History from 1865 to the present. The central themes of the class include the role and responsibility of local and national government, the essence and evolution of the American Dream and American identity, and America's place in world affairs. Units of study include Reconstruction and the American West, Progressivism, the Roaring 20s, the World Wars, cultural changes of the late $20^{\text {th }}$ century, the Cold War and the Vietnam War. Teachers will emphasize the roles of art, literature, economic and social trends, and politics in the development of American culture.

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. Students will write a research paper to continue to develop their researching skills and methods for historical writing.

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.

The content of this course encourages a deeper understanding of the major historical events in American History from 1865 to the present. The central themes of the class include the role and responsibility of local and national government, the essence and evolution of the American Dream and American identity, and America's place in world affairs. Units of study include Reconstruction and the American West, Progressivism, the Roaring 20s, the World Wars, cultural changes of the late $20^{\text {th }}$ century, the Cold War and the Vietnam War. Teachers will emphasize the roles of art, literature, economic and social trends, and politics in the development of American culture.

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. Students will write a research paper to continue to develop their researching skills and methods for historical writing.

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 ninth grade social studies teacher.

## ELECTIVES

## 638 Advanced Placement Psychology

Year Credits: 5
The AP Psychology course, which is only open to seniors, is designed to be the equivalent of an introductory college psychology course. Students will focus on the academic perspectives of psychology including: the behavioral, cognitive, social, psychodynamic, trait, biological and humanistic paradigms of psychology. Topics include human development, memory, learning, personality, mental illness, sensation and perception, group behavior, intelligence, psychological testing, language, motivation and emotions. Students are prepared to take the Advanced Placement examination in Psychology. Summer reading is required with an accompanying assessment at the beginning of the school year. This course may not be taken with Beginning Psychology Honors

640 Advanced Placement European History
11-12 Year
Credits: 5

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. All students in grade 11 must successfully complete the Junior Thesis in order to successfully pass the course.

This course is for competent and ambitious 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.

## 642 Advanced Placement American History 10 - $12 \quad$ Year $\quad$ Credits: 5

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 the approval of their ninth grade teacher and advanced reading and writing skills. Students are required to successfully complete a Sophomore Research Paper.

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.

## 654 Advanced Placement Economics 11-12 Year Credits: 5

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 skill as well as the recommendation of their Sophomore or Junior Social Studies teacher. 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

11-12 Year
Credits: 5
This 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).

## 675 Global Leadership <br> 11-12 Year <br> Credits: 5

Global leadership is a year-long course that will appeal to students who have an interest in both community service and global affairs. Students will examine human rights issues and the role of service leaders in the global community. They will forge relationships with schools and other organizations abroad and use these relationships to discuss issues of intercultural communication. Building off of these learning experiences, students will design a global action project that will allow them to make a difference around one issue for which they are passionate. The course will use technology such as blogs, email, social bookmarking websites, podcasts, and videos as well as other sources like journal and news articles.

The law affects all of us each day in ways we may not even notice and there's much more to law than what we see on TV. This course is designed to untangle the law and our legal system, exploring how law impacts our lives, and evaluate our system's strengths and weaknesses. Topics of study include the purpose of laws and how they're made; the role of judges, juries and lawyers; crime and punishment; constitutional protections against police searches and interrogation; discrimination; personal injury law; and our rights as consumers. The course also involves regular analysis of legal issues in the news. Students can expect to participate in simulations, mock trials, oral presentations, debates, individual writing assignments and group activities. A field trip to a correctional facility is usually part of the course.

659 Facing History and Ourselves (not offered in 14-15)
11-12 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.

## 663 Beginning Psychology Honors

Year Credits: 5

The principal aim of this course is to give students a basic understanding into the field of psychology and to examine motivation, learning, behavior, development, perception and cognitive process in humans and animals. The course will
also seek to answer questions such as Why some people are more hostile than others?: How our experiences shape our future?, Why have certain human tragedies repeated time and time again?, and How is one's personality determined? Through a rigorous workload which utilizes discussion, lectures, group work, presentations, readings, and movies students will have a very concrete understanding of introductory psychological concepts, ideas, and practices. Students may take only one Psychology class (Beginning Psychology, or AP Psychology).

## 670 Community Service <br> 11-12 Year <br> Credits: 5

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 class 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 may be taken only once, either in the junior or senior year.

This course does not count toward the community senvice requirement (40 hours) for graduation.
665 Modern World Issues Honors
11-12 Year
Credits: 5
This course analyzes the major issues and concerns on a national and international level. Units reviewed include: domestic and global terrorism and the war on terror, crime and punishment, theory and application of major political and economic ideologies, military conflict, foreign policy, and international trade and environmental concerns. Throughout the year, class time is used to examine major news items that arise. Students will examine these issues conduct research to gain further knowledge of the subjects, evaluate the arguments of opposing sides, and form their own ideas and opinions.

Those enrolled in this course are required to use resources beyond the classroom, such as credible websites, online videos and podcasts, and printed works. The course will culminate with a final project that presents an international issue not reviewed during the year.


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