

Horace Mann School

Upper Division Program of Studies

For the Academic Year 2015-2016



**Horace Mann School
231 West 246th Street
Bronx, New York 10471**

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Program Planning Schedule 2015-2016

Program of Studies distributed
to students in advisory meetings

April 7th

Advising and Decision Making
Students confer with advisors,
deans, parents. Parents and
advisors indicate their approval
by signing Course Request Form

April 7th – May 5th

Students' signed Course Request Forms
handed in to advisors

May 5th

Online Course Registration Opened

May 5th – May 12th

Online Course Registration Closed

May 12th

Students receive 2015-2016 schedules in August.

Graduation Requirements

Eighteen full credits in academic disciplines
One and one-half credits in Arts
One-half credit in Computing and Communications
Four years of Physical Education/team sports/approved out of school contract
Certification in CPR/AED
Health
HMO, Quest, Advisory
Community Service

Department Requirements

This is a list of the minimum graduation requirements for each department. Please consult the “Grade-by-Grade Course Lists” for information about when these courses are usually taken. Consult individual department sections for detailed information about courses.

English	continuous enrollment grades nine through twelve
History	Atlantic World History United States History One non-AP elective (starting with Class of 2019)
Foreign Languages	proficiency through Level III of Chinese, French, Italian, Japanese, Latin, or Spanish
Science	Biology Chemistry or Physics
Mathematics	Algebra I Geometry Algebra II and Trigonometry
Arts	one and one-half credits taken at any time in grades nine through twelve with at least one-half credit in studio or performance and at least one-half credit in appreciation or history
Physical Education & Health	Physical Education each term, grades nine through twelve, unless replaced by team membership or an approved Independent Out of School/Athletic contract. Certification in CPR/AED for the Professional Rescuers & Health Care Providers. Health Education in grade ten.
Computing & Communications	one half-credit in grades nine through twelve.
Counseling & Guidance	HMO in grade nine; Quest in grade eleven; Advisory grades nine – twelve.

Community Service

FOR THE CLASSES OF 2018 AND 2019:

The Upper Division is in the process of moving our service program to a service-learning model. Our incoming and current Ninth Grade classes (classes of 2018 and 2019) will participate in the new activities and requirements, while the classes of 2016 and 2017 will continue to participate in community service under the requirements in place when they entered the Upper Division (see below).

Classes of 2018 and 2019: The requirement consists of a combination of school-sponsored events, grade-wide activities, projects initiated by the student, and reflection opportunities.

Ninth graders (Class of 2019) will be responsible for **participation in grade-wide service-learning day** (date to be announced) and **10 additional hours** of service projects. Requirements for the type of service projects will be available at the beginning of the 2015-16 school year.

Tenth Grade requirements will include school-sponsored activities, and individually initiated projects/service activities. Specific requirements will be available by the beginning of the 2015-16 school year.

Beginning in the fall of 2015, all students must engage in **two reflection activities per year**. One of these must be **participation in a group discussion**. Discussions will be scheduled regularly and frequently throughout the year. The second reflection may be participation in another group discussion, a written reflection, or an individually designed reflection (for example, participating in a panel in an outside agency or on HM campus on their service project, or contributing an article on the significance of their project to an HM or outside publication).

Full explanation and timeline of requirements will be available to each class at the beginning of the 2015-2016 school year.

FOR THE CLASSES OF 2016 AND 2017:

Eighty hours of Community Service are required for graduation. Students in grades nine and ten must complete a minimum of forty hours before advancing to the eleventh grade. An additional forty hours must be completed throughout the eleventh and twelfth grades. Students may choose to serve the HM community in different ways. A maximum of 16 hours of the total forty-hour requirement can be satisfied on campus, and a minimum of 24 hours of the requirement must be done off-campus for the greater community.

Grade-by-Grade Course Lists

These are *likely* lists of courses. Naturally, not every ninth grader, for example, will have the same list as every other. But, for the most part, you will find here department requirements and likely lists for students in each grade. Specific questions may be addressed to the student's advisor or grade dean.

Grade Nine:

Full-credit courses:

English 9

Atlantic World History

Biology

Foreign Languages usually level two or two honors of their chosen language, depending on eighth grade course and/or placement exam. Students are welcome to begin a new language at level 1.

Geometry or Algebra I (9) – ninth grade section, depending on student's previous math course and/or performance on the math placement exam.

Additional Grade Requirements for Grade Nine:

Physical Education students choose ONE: Concepts of Physical Fitness/Team and Life Sport or Dance Workshop PE

Arts half-credit course recommended of either type – studio/performance or appreciation/history

Computing & Communications half-credit course recommended

HMO

Advisory

Community Service

Grade Ten:

Full-Credit courses:

English 10

United States History

Foreign Languages usually level three or three honors of their chosen language. The successful completion of level 3 of the same language satisfies the graduation requirement in foreign languages.

Chemistry Most students satisfy the Science requirement with Biology and Chemistry.

Algebra II and Trigonometry or Geometry for students who took Algebra I (9) in 9th grade and have not yet taken Geometry. Those students who take and pass Algebra II satisfy their mathematics graduation requirement.

Additional Grade Requirements for Grade Ten:

Physical Education & Health Students choose ONE: Concepts of Physical Fitness/Team and Life Sport, Dance Workshop PE or Varsity PE for two trimesters. In the remaining trimester Health will be assigned.

Arts Half-credit course recommended. Ideally, the student should take the *other kind* of art half-credit course.

Computing & Communications Half-credit course recommended if not taken in ninth grade. If the requirement has been met, students may choose an elective course in this department.

Advisory

Community Service

Grade Eleven: Note that student schedules will vary widely beginning this year, depending upon completion of graduation requirements and choice of elective courses.

Full-credit courses:

English 11

3 or 4 other full-credit courses

By the end of 10th grade, most students have satisfied minimum course graduation requirements in the Departments of History, Foreign Language Science and Mathematics. We recommend that students maintain a balanced program and that they not stop studying in a given discipline once they have satisfied the minimum requirement. The courses we list here are the next courses in the sequence; note that they may be *elective* courses at this point.

History

Class of 2016, 2017, 2018: Students choose from among a number of electives, including Advanced Placement courses; APs are open only to juniors and seniors and require departmental approval. The History Department strongly recommends that before graduation students take at least one elective with a focus on geographic regions outside the United States and Europe.

Starting with Class of 2019: Students must take at least one non-AP History elective of their choice before graduation, in either junior or senior year. The History Department strongly recommends that one elective have a focus on geographic regions outside the United States and Europe. AP electives are open only to juniors and seniors and require departmental approval.

Foreign Languages

Students usually take level 4, 4Honors, AP Language & Culture, or the next course in their sequence of study. Students may elect to study a new foreign language.

Science

Most students take Physics. Students who have completed Biology and Chemistry may take an elective course. Qualified students may take an AP course.

Mathematics

Students may take Precalculus (three levels) or Introduction to Statistics

Additional Grade Requirements for Grade Eleven:

Physical Education

Students choose ONE: Concepts of Physical Fitness/Team and Life Sport, Dance Workshop PE, Varsity PE or CPR.

Arts

Students continue to work on requirement or, if requirement has been met, students may choose an elective art course.

Computing & Communications

Students should choose a half-credit course if one has not been taken in ninth or tenth grade. If the requirement has been met, students may choose an elective course in this department.

Quest

Advisory

Community Service

Grade Twelve: Note that student programs are certain to vary widely in Grade Twelve. See each departmental listing for the available courses and their prerequisites and selection procedures.

Full-credit courses:

English 12	Students choose among trimester electives or, with departmental permission, take AP English.
3 or 4 other full-credit courses	By the end of 10 th grade, most students have satisfied minimum graduation requirements in History, Foreign Language, Science, and Mathematics. We recommend that students maintain a balanced program and that they not stop studying in a given discipline once they have satisfied the minimum requirement. The courses we list here are the next courses in the sequence; note that they are <i>elective</i> courses at this point.
History	Class of 2016, 2017, 2018: Students choose from among a number of electives, including Advanced Placement courses; APs are open only to juniors and seniors and require departmental approval. The History Department strongly recommends that before graduation students take at least one elective with a focus on geographic regions outside the United States and Europe. Starting with Class of 2019: Students must take at least one non-AP History elective of their choice before graduation, in either junior or senior year. The History Department strongly recommends that one elective have a focus on geographic regions outside the United States and Europe. AP electives are open only to juniors and seniors and require departmental approval.
Foreign Languages	Students usually take Level 5, 5H, AP, a Seminar class or the next course in their sequence of study. Seniors are welcome to begin a new foreign language.
Science	Students who have completed Biology and Chemistry may take an elective course. Qualified students may take an AP course.
Mathematics	Students may take Calculus (three levels), Statistics (two levels), Senior Math Electives, and/or Math Seminar.

Additional Grade Requirements for Grade Twelve:

Physical Education	Students choose ONE: Concepts of Physical Fitness/Team and Life Sport, Dance Workshop PE, or Varsity PE.
Art	Students complete work on requirement or, if requirement has been met, student may choose an elective art course.
Computing & Communications	A half-credit course is required if one has not been taken in ninth, tenth or eleventh grade. If the requirement has been met, students may choose any elective course in this department.
Advisory	
Community Service	

Activities

Arts

The Arts Department at Horace Mann permits students to participate in the arts beyond the level demanded by coursework. Opportunities abound in all areas of the arts. The theatre department mounts three major productions per year. There are numerous concerts and recitals. Visual artists can propose and create special exhibits. Students who wish to make a commitment to the arts beyond what is required by coursework should consider this commitment when planning their schedules for coming years.

Athletics

Students at Horace Mann can play on any of a great number of teams. Interscholastic athletics is a significant commitment. Students who plan to play on teams should include this commitment when planning their schedules for coming years. Teams fielded by the Horace Mann Athletics Department include:

Fall

Boys' Cross-Country (JV,V)
Girls' Cross-Country (JV,V)
Girls' Field Hockey (V)
Boys' Football (JV,V)
Boys' Soccer (JV,V)
Girls' Soccer (JV,V)
Girls' Tennis (JV,V)
Girls' Volleyball (JV,V)
Water Polo (JV, V)

Winter

Boys' Basketball (JV,V)
Girls' Basketball (JV,V)
Boys' Fencing (JV,V)
Girls' Fencing (JV,V)
Boys' Skiing (V)
Girls' Skiing (V)
Boys' Squash (V)
Boys' Swimming (JV,V)
Girls' Swimming (JV, V)
Boys' Indoor Track (JV,V)
Girls' Indoor Track (JV,V)
Boys' Wrestling (JV,V)

Spring

Boys' Baseball (JV,V)
Boys' Crew (JV,V)
Girls' Crew (JV,V)
Boys' Golf (V)
Boys' Lacrosse (JV,V)
Girls' Lacrosse (JV,V)
Girls' Softball (JV,V)
Boys' Tennis (VB,V)
Boys' Track & Field (JV,V)
Girls' Track & Field (JV,V)
Ultimate Frisbee (V)
Boys' Volleyball (V)

Publications

Publications are a prominent part of life at Horace Mann. More than half of our students write for one or more publications at some time during their years here. Each publication has a faculty advisor who works closely with student writers and editors. Publications that appeared in recent years include:

Amplified

Art Nouveau

Beyond Magazine

Business Mann

Cinemann

Edible

FAD

Folio 51

For the Win

H2U

HM Reader

Horace Mann History Journal

Images

Insight

Mannikin

Manuscript

Pixelated

Prime

Psychology Observer

Speak

Spectrum

The Drum

The HM Chuckler

The Horace Mann Review

The Humanitarian

The Linguist

The Record

Thespian

Voyager

Word

Clubs

Horace Mann offers a vast array of clubs for students who wish to pursue interests not addressed by course offerings. Each club is advised by a member of the Horace Mann faculty and is supported by all available school resources. Students are encouraged to join a club that meets their needs and interests. When planning a schedule, club membership should be taken into consideration. It is better to make a significant commitment to one or two clubs that are of great interest than to join an array of clubs and be active in none of them. Most of the HM clubs are listed here.

AFYA Foundation	Green HM	Mock Trial
American Red Cross Club	Habitat for Humanity	Model Congress
Anime Club	HarMannics and HarManny	Model United Nations
Antibullying Leadership Network	Heart to Heart	Music Outreach
Architecture Club	HM Food Bank	Operation Prom
Bridge Club	HM Lions Report	Operation Smile
Build On Club	HMTV	OutDorrs Club
Cancer Awareness	Horace Mann Art Society	PAW (People for Animal Welfare)
Christian Culture Club	Horace Mann Business League	Political Society
Circle of Women	Horace Mann Dance Company	Semillas de Amor
Computer Science	Horace Mann Theatre Company	Spanish Club
Crohn's and Colitis Club	Ideas & Questions	Student Musical Production Club
Debate Team	Immigration Reform Club	Students for Student
East Wind West Wind	JaHMs	Support our Soldiers
Fashion Design Club	Junior State of America	The Horace Manniacs
French Club	Knowledge Master (KMO)	The Quiltbag (GSA)
Fusion Club – All Science Clubs	Lights, Camera, Action	The Union
Game Knights	Math Team	Women's Issues

Additional Student Activities

Anti-Smoking Mentors	Library Lunch Chat	Saturday Morning Tutoring
Book Day Committee	Middle School Mentors	Science Associates
Community Council	Peer Leaders	Senior Activities Committee
Health Peer Leaders	Pep Rally	Student Ambassadors
HM Tech Leaders	RuMannations Project	The Service Learning Team

Summer School at Horace Mann

Students entering grades 9-12 in the fall should think seriously about the opportunities afforded them by opting to take summer courses. Students may want to take a half credit course in Computing & Communications to fulfill their graduation requirement. In addition there are courses in history, math, and science that may help you achieve your overall academic goals.

Credit courses are offered in most disciplines. All course offerings are listed on the Horace Mann homepage under Academic Life, Summer Programs – Summer School --

<http://www.horacemann.org/page.cfm?p=200>.

These academic courses will be offered for credit Summer 2014:

US History	Introduction to Computer Science	
Chemistry	Algebra I	Algebra II
Physics	Pre-Calculus	Geometry

This year we are happy to be able to provide a free SAT prep course to rising 10th & 11th graders. The course will run June 23-27. All rising 10th & 11th grade students have been sent the link to register for this course. In addition, with the wonderful help of the College Counseling Dept., rising 12th graders can sign up for "Writing the College Application Essay". The course will be free of charge for rising Seniors who wish to attend. Students have two options: June 16-20 or June 23-27. Both courses will run from 10am-3pm each day. There will be time during the day for students to get lunch. Students must provide their own transportation to/from HM. Seniors have been sent the link by the College Counseling office to sign up for this course. For further information please email Beth Pili in College Counseling.

Please see Summer School FAQ on page 71.

Approval For AP Courses

Each department is responsible for setting appropriate requirements for the AP courses that it offers. All AP courses require departmental approval. Students who wish to apply for AP courses should discuss their current work with the appropriate teachers and department chair. Students in all advanced placement courses are required to take the Advanced Placement Examination. Entry into all Advanced Placement courses requires that the student be a trustworthy and respectful school citizen.

These are the requirements for admission to AP courses:

- Arts AP Music Theory
Junior or Senior standing is required.
Admission to AP Music Theory requires excellent work in previous music theory courses or other demonstration of preparedness and an interview with the Chair of the Music Department or course instructor.
- AP History of Art
Junior or Senior standing is required. Any student who has performed adequately in at least one Introduction to Art History course will be accepted into the course. Students who have not taken an art history course are eligible for the class with departmental approval.
- AP Studio Art
Department Approval. Senior standing is required. Most students will have completed the 1, 2 & 3 sequence courses
- Computing AP Computer Science
Admission requires passing Computer Science II and departmental approval.
- Counseling AP Psychology
& Guidance Admission to Advanced Placement Psychology has a prerequisite of Introduction to Psychology and requires approval of the department.
- English AP English
The department offers one section of Advanced Placement each year. Admission is competitive, and it requires grades in English that average closer to an A- than to a B+, if not higher, a writing sample, as well as the permission of the department.
- Foreign Advanced Placement courses in French, Japanese, Latin and Spanish are continuations of
Languages 3 Honors and 4 Honors courses. Students who maintain a minimum grade of a B+ in these honors courses are eligible to apply for Advanced Placement. In addition to excellent grades, admission to AP courses is determined by departmental approval. Students who receive a grade lower than B on their final exam are unlikely to gain admission to an AP course. An additional assessment may be required to determine eligibility.
- History Admission to AP U.S., AP European, and AP World History is open only to juniors and seniors, and will be determined by (a) successful completion of history surveys for grades 9 and 10; (b) permission of the Department, based on the following criteria: History grades that average A- or higher for all years and class citizenship. Students with History averages higher than B+, but not A-, will be considered on an individual basis. For rising seniors who apply, more weight will be given to grade averages in years 10 and 11.

Economics Admission to AP Economics is open only to juniors and seniors and will be determined by (a) successful completion of history surveys for grades 9 and 10; (b) permission of the Department, based on grade averages in History, Science and Math for all years and class citizenship. For rising seniors who apply, more weight will be given to grade averages in years 10 and 11. Economics (0112) is not required as a prerequisite. Students who have already completed Economics (0112) may not apply for AP Economics.

Mathematics AP Calculus AB

Admission requires a minimum grade of B+ in Precalculus AB (0441). If a student in Precalculus AB averages a B+ after the first three trimesters and has a final exam that lowers the year-end grade to a B, that student may sit for a placement exam (to be administered on JUNE 11, 2015) to determine whether they may gain admittance to this course. In certain exceptional circumstances, students who demonstrate brilliance in Precalculus (0440) throughout the year and on the final exam will be eligible to take this course. In all cases, approval of the department chair is also required.

AP Statistics

Admission requires a minimum grade of B+ in Precalculus (0440) or a minimum grade of B in Precalculus AB (0441) or a minimum grade of B- in Precalculus BC Honors (0442). Approval of the department chair is also required.

AP Calculus BC

Admission requires satisfactory completion of Precalculus BC Honors and approval of the department chair.

Science

Admission to all AP science courses requires permission of the department. Generally, students need to have earned a B+ or better in Biology, Chemistry, and Physics to be considered, although more recent grades may be given more weight. Particularly outstanding and interested students may be admitted to Physics and an AP science course (except AP Physics) concurrently. Special approval is required to take two AP Science courses concurrently.

Grades in mathematics courses will also be considered based on the demands of the particular AP science course. For AP Chemistry students must be enrolled in or have completed Precalculus, and for AP Physics students must be enrolled in or have completed AP Calculus AB or AP Calculus BC.

Students interested in taking an AP science course must meet with their current science teacher to discuss their program choices before submitting their Course Request Sheet.

Listing of Courses by Department

Arts

The practice of creativity calls upon intellectual, emotional, and physical intelligence and is key to the making of a fully educated and self-actualizing person. Through art making, one learns to meet the world's procession of challenges, accept responsibility, find solutions, and achieve goals.

The Arts Department encourages the young person, moving into adulthood, toward self-realization, forming the foundation for a life of exploration and performance excellence. Every concert, exhibition, or production is a tribute to the observations, analyses and disciplined choices experienced through artistic practice. In the Art Department, students experience the study of humankind's creative traditions, the joy of invention, and the experience of "making work"—images, objects, paintings, music, dances and performances. One proceeds, engaging fully in the moment, and in the invention of the new.

Graduation Requirement:

One and one-half credits in grades nine through twelve with at least one-half credit in studio or performance and at least one-half credit in appreciation or history.

Private Music Lessons

Lessons meet once per week and do not fulfill graduation requirements in Arts

Arranged through the Music Department office, Private Music lessons are available to students in all grades. Lessons are given once a week, by professional musicians on the staff of the department, and are available on all instruments, including voice. All students taking private lessons are expected to practice diligently and come to their lessons prepared. Students pay an annual fee of \$1300.00

Music

Full Credit Courses

Music Performance Seminar (0853) (MPFC)

Prerequisite: Approval of the Department

History/Appreciation

Grades 11-12

This course is designed for those who wish to pursue one or two musical topics at a very intense and advanced level. Past areas of concentration have been composition, conducting, orchestrating and advanced recording techniques. Students must be highly organized and self-motivated. This is a full-credit course.

Advanced Placement Music Theory (0851) (APMU)

Prerequisite: Approval of the Department

History/Appreciation

Grades 11-12

This course is designed to develop a student's ability to recognize and understand the architecture of music. Through analysis of form and structures, composition, aural recognition, sight singing, writing and dictation, the student will gain a much deeper understanding of both the art and the craft of musical composition and a greater understanding of musical analysis.

Topics in Music History (0832) (TIMH)

Prerequisite: Approval of the Department

History/Appreciation

Grades 11-12

This course in listening and analysis explores musical styles of various eras and cultures. Class discussions, listening sessions, and reading assignments are occasionally supplemented by field trips to open rehearsals and other musical events in New York City. A basic knowledge of music is essential in addition to a genuine desire to learn about and enjoy many styles of music.

Half-credit courses

History of Music (Bach to Stravinsky) (0830) (HSMU)

History/Appreciation

This course is designed for students who desire to become aware of the role music has played in the formation of Western civilization. We emphasize the evolution of musical styles and concepts in relation to the cultures in which the composers lived. Students are required to listen to music outside class. No previous musical training required.

Music Seminar (0833) (MSEM)

Prerequisite: Approval of the Department

History/Appreciation

Grades 11-12

This course in listening and analysis explores musical styles of various eras. Past areas of concentration have included: *Mahler and Symphonies*, *Verdi's Sacred Works*, and *the Concerto*. Students need to be well organized and self-motivated.

Great Music of the 20th Century (0841) (20MU)

History/Appreciation

We all love listening to music, but why do we like some artists and not others? Why do some recordings stand up to repeat listening, while others turn out to be passing fads? From Mahler and Bernstein to Jimi Hendrix and Radiohead, there are common elements that have added to the rich, fertile musical soil we know today. In this course you will learn how to listen more deeply into music to search for answers to these questions. Along the way, we'll explore select examples of many different genres and expand our knowledge and awareness of contemporary music.

History of Jazz (0840) (HJAZ)

History/Appreciation

The course focuses on the development of Jazz in America as it has manifested itself in cities such as New Orleans, Kansas City, Chicago, and New York. Tracing Jazz's roots through Ragtime, Big Band, be-bop, and Fusion, the class also covers such legendary performers as Louis Armstrong, Count Basie, Duke Ellington, and Miles Davis. The course utilizes detailed texts and listening materials to help students gain the skills necessary to understand and evaluate jazz music and the way it has made its way through the 20th century. Students should expect occasional guest performances in class, as well as attending one live jazz event as a class.

Music Theory (0850) (MTH1)

Prerequisite: Approval of the Department

History/Appreciation

Grades 9-12

This course focuses on studying, writing and analyzing basic tonal harmony and musical form. Beginning with a survey of music terminology and concepts, students will examine the evolution of Western harmonic vocabulary while being exposed to a wide range of musical styles and works.

Music Technology (0856) (MUTC)

Prerequisite: Approval of the Department

Performance/Studio

Grades 10-12

This course is a hands-on study of modern music creation utilizing Horace Mann's Pro Tools equipped recording studio. Students will study the nature of sound and vibrating bodies, sound generating devices, as well as how to record, manipulate, mix, and master music. Previous experience in a performing group or private music lessons and strong computer skills are strongly recommended.

Advanced Studio Production (0857) (AdvStuPro)

Prerequisites: Successful completion of Music Technology (0856), the ability to play an instrument, sing or compose music and permission of the instructor.

Performance/Studio

Grades 11-12

The Advanced Studio Production course provides a highly in-depth and hands-on study of recording, mixing and mastering techniques. While the instructor determines the course's scope and sequence, individual student talents and interests will help to shape the course's content and breadth. Topics covered will include multi-tracking, pitch correction, compiling alternate takes to create a polished product, the subtleties of microphone types, microphone techniques, and creating lead sheets and rhythm charts for studio musicians.

Orchestra (0822) (ORCH)

Co-requisite: Wind, Brass, and Percussion players must also enroll in Wind Ensemble

Prerequisite: Audition and approval of the instructor

Performance/Studio

The orchestra rehearses and performs masterpieces from the Baroque, Classical, Romantic, and Contemporary eras, and its members experience first-hand some of the great musical compositions of Western culture. Concerts each trimester enable students to share the joy of music making both on campus and with audiences in Manhattan. Participation in all dress rehearsals and concerts is required.

String Sinfonietta (0823) (SSIN)

Co-requisite: Orchestra

Prerequisite: Audition and approval of the instructor

Performance/Studio

The String Sinfonietta's repertoire covers the entire canon of string orchestra literature from the Baroque to Contemporary. The ensemble performs five to eight times per year, both on and off campus. Private Music lessons are expected and attendance at all dress rehearsals and concert is mandatory.

Glee Club (0801) (GLEE)

Prerequisite: Audition and approval of the instructor

Performance/Studio

Grades 9-12

The Horace Mann Glee Club has a long tradition of performing choral masterworks, as well as a wide range of choral music from varying countries and traditions. The curriculum focuses on group vocal production, choral blend, lyric diction, phrasing, standard performance, and developing a love for group singing. The ensemble performs four to six times a year, and every member is required to participate in all scheduled dress rehearsals and concerts. Students in all grades may audition for Glee Club.

Concert Glee Club (0803) (CONC)

Prerequisite: Audition and approval of the instructor

Performance/Studio

Grades 10-12

The Concert Glee Club is a select ensemble open to students in grades 10, 11, and 12 that performs advanced choral literature from both Western and non-Western traditions, vocal jazz, and pop. The ensemble performs eight to ten times a year, both on and off campus. Students are expected to take private lessons while in this ensemble. Participation in all dress rehearsals and concerts is required.

Jazz Combo (0813) (JAZC)

Prerequisite: Audition and approval of the instructor

Co-requisite: Enrollment in Wind Ensemble

Performance/Studio

This course is for students serious about studying and rehearsing both traditional and contemporary jazz music. The ensemble prepares for numerous performances and serves as a colloquium on the varied performing styles in jazz. Students are expected to take private lessons while in the ensemble. Participation in all dress rehearsals and concerts is required.

Wind Ensemble (0811) (SWE)

Prerequisite: Audition and approval of instructor

Performance/Studio

The Wind Ensemble performs both new and standard wind band works. The group performs three major concerts throughout the school year. Advanced members of the Wind Ensemble may be invited to perform additional concerts and repertoire with other ensembles.

Steel Drum Ensemble (0815) (SDRM)

Performance/Studio

Grade: 9-12

Co-requisite: None

This ensemble is designed to expose students to steel drum band works from a variety of musical styles. Students will develop the skills necessary to perform musical works from genres such as samba, calypso, pop and reggae. Some class time will be devoted to exploring the history and social relevance of the steel band movement. The ability to read music is not required, but is helpful, as students will be reading from sheet music. Students are required to perform in three evening concerts during the course of the year.

Theatre, Dance, and Film Studies

In the Department of Theatre, Dance, and Film Studies there are currently two Full-Credit Courses, numerous Half-Credit Courses and two One-Third Credit courses. The one-third credit is for participation in a trimester-long theatre or dance production or for a full trimester commitment to the after school Technical Crew.

Theatre, Dance, and Film Studies

Full credit course

Seminar in Acting (0875) (SEMA)

Grades: 11 & 12; Grade 10 with permission

Prerequisite: Intermediate Acting or by approval of the instructor

Performance/Studio

Students participate in an intense study of various acting techniques. The first part of the course concentrates on an actor's tools through sense and emotion memory, improvisation and basic acting

exercises. Scene study and technique are then studied in depth with individual critique and coaching by the instructor. Classic readings by Stanislavski, Boleslavsky, and Robert Lewis are essential to the course. Throughout the year students perform monologues, scenes and, occasionally, short plays.

Production Seminar (0865) (PRSE)

Grade 10-12

Performance / Studio

Production Seminar gives students the opportunity to explore all aspects of theatre performance and production culminating in a final performance. Students will work together to choose a play to produce. They will discuss aspects of style, choose the physical space to present the play, and design the set, lighting, and costumes. The class will cast the play from those enrolled in the course. All students will perform and they will receive instruction in acting styles and techniques. Rehearsals will be during class meeting periods. The students enrolled in Production Seminar will build and paint the scenery for the production and install all lighting elements. Emphasis will be placed on process driven exploration of the theatre art. Production Seminar is an immersive, hands on course designed for actors, designers, technicians or anyone curious about the art of theatre creation. (Class size is limited to 16 students.)

Theatre, Dance, and Film Studies

Half credit courses

Introduction to Classical Theatre (0871) (ICLT)

Grades 9-12 (not offered in 2015-2016)

History/Appreciation

Aiming to broaden students' appreciation of the origins, range and transformation of theatrical performance, the course concentrates on three developments in the history of world theatre, one per trimester:

- (1) classical Greek theatre of the 5th and 4th centuries BCE (tragedy, comedy and the satyr play)
- (2) classical Japanese theatre from the 14th to the 17th centuries CE (noh, bunraku and kabuki)
- (3) classical western European theatre of the 16th and 17th centuries CE (the “Golden Ages”)

In addition, the birth of opera as a reincarnation of ancient Greek tragedy is studied as well as the development of dance as a narrative art form. Each trimester, one play is read in class and studied closely to provide a case-study for the larger historical and cultural background. Quizzes and homework assignments complement the class work.

Introduction to Modern European and American Theatre (0872) (IMEA)

Grades 9-12

History/Appreciation

This course will introduce students to all the major trends and styles in Western theatre from the time of Shakespeare to the present. Revenge tragedy, Restoration Comedy, Romanticism, the advent of realism and the experimental theatre of the late 20th century will all be examined in survey form. In-class readings of exemplary playwrights from each era will be used and there will be an emphasis on historical content and the importance of influential individuals.

History of American Musical Theatre (0878) (HAMT)

History/Appreciation (not offered 2015-2016)

This course is an historical survey of the American Musical. Topics include its origins, development, and future. The class will attend, as a group, selected representative performances during the course of the year. Attendance at Horace Mann musical theatre events is also expected.

Introduction to Acting A (0873) (IADA)

Grade 9

Prerequisite: Audition and approval of the instructor

Performance/Studio [Maximum 14 students]

Students with a desire to learn the techniques of a more serious actor/director can audition for this introductory level course. Acting skills covered include physical awareness, stage presence, vocal projection, articulation, character development and risk-taking. Through playful improvisation exercises and increasingly challenging scene and monologue scripts, actors experience the power of their imagination, the strength of their instrument and the enjoyment of being part of a theatrical ensemble. Work is performed for an audience as often as once a trimester, with a final showcase at year's end. This section of Introduction to Acting is specifically geared to the 9th grade actor with heightened emphasis on imagination, improvisational skills, and physical expressiveness. Students who take this course are prepared for the *Acting and Directing B* should they choose to continue studying theatre at Horace Mann.

Acting and Directing B (0874) (IADB)

Grades 10-12

Performance/Studio (Maximum 14 Students)

This course is for students with a desire to learn a range of techniques for acting and directing. Acting skills covered include physical behavior, stage presence, vocal projection and articulation, character development, text analysis, and risk-taking. Through playful improvisation exercises and increasingly challenging scene and monologue scripts, actors experience the power of their imagination, the strength of their instrument and the enjoyment of being part of a theatrical ensemble. Attending performances outside of Horace Mann in addition to all school productions is a requirement of the course. Work is performed for invited audiences throughout the year with a final showcase at year's end. *Acting and Directing B* is specifically geared to the 10th-12th grade actor and may be preceded by *Introduction to Acting A*. Students who take this course are prepared for the *Advanced Acting Seminar* should they choose to continue studying theatre at Horace Mann.

Playwriting and Production (0877) (PWPR)

Grades 10-12

Prerequisite: Submission of a short scene and approval of the instructor

Performance/Studio (Maximum 12 students)

Entry to this course is by submission of a short scene and permission of the instructor. Students begin reading plays by American playwrights (Miller, Williams, Vogel) to learn to understand and analyze great writing. Scene writing and guided exercises provide the basis for experimenting with elements of structure, character, rhythm and style. The group collaborates to learn about drafting through performing each other's work, followed by revising and re-writing. All class members are expected to act in readings and participate in lively discussions on writing techniques. The final project is the writing of a one-act play that may be submitted to the Student-Written One-Act Play Festival. While selected plays are produced every other year in this festival, the course culminates annually in staged readings of each writer's work.

Stagecraft in School -- Period H crew (0860) (CREW)

Grades 9-12

Performance/Studio

This is a full-year, half-credit course which meets during a regularly scheduled period during the class day. In it students learn how to safely use tools in construction of set pieces, how to hang, focus, and circuit lights, and a variety of other skills related to theatrical scenic technology. Those in this course do not attend after-school classes and are not expected to run the back stage activities for the season's productions.

Theatre Design and Production

Theatre Design and Production A and B are offered as a single half-credit courses, with the option of continuing for a second year at a more advanced level. (Grades 9 - 12)

Theatre Design and Production A (0866) (TDPA)

Grades 9-12

Performance/Studio

Theater Production Design introduces Upper Division Students to the tools and techniques necessary to the process of designing for the theater as well as designing in other related fields such as interior architecture and themed environments. Areas that will be studied are drafting of plans and elevations, scale model making, color rendering, CAD lighting plots and architectural sketching. Students will work in a variety of media as they explore set, lighting and costume design for the theater. Emphasis will be placed on the tools needed to communicate one's design concepts using standards common in both the theatre and architecture industries. Completion of the course allows students to be eligible to design for the Horace Mann Theatre Company's season.

Theatre Design and Production B (0867) (TDPB)

Grades 10-12

Prerequisite: Theatre Design and Production A or by the approval of the instructor

Performance/Studio

This class is a continuation of concepts studied in Theatre Production Design (A). Students work on further refining their skills in drafting, model-making and color-rendering. More in-depth discussions of play and production text are explored and individual assignments may include Main Stage productions.

Film Studies (0879) (FMST)

Grades 10-12

Prerequisite: The Art of Film or by the approval of the instructor

Appreciation

Building on the foundation of Art of the Film, Film Studies investigates selected, more advanced topics dealing with various aspects of cinema. Each trimester concentrates on two areas of study:

- Trimester I: Cinematic grammar and style
The art of film and *auteur* theory
- Trimester II: Image and text
The soundscape of motion pictures
- Trimester III: Actors, characterization and dialogue
A final research project for each student

Functioning as a seminar, the course assesses students' contributions to class discussion, presentations, and in-class essays as a basis for a grade. Co-operative learning is emphasized. [Maximum of 12 students]

The Art of Film (0880) (AFLM)

Grades 9-12

History/Appreciation

This course looks at the evolution of film as an art form, concentrating on visual meaning and its eventual conjunction with sound. The contributions of directors, producers, actors, cinematographers, art directors, costume designers, editors, and special-effects people are all examined both through scene study and sometimes through watching an entire film. In addition, the development of a grammar of film and the emergence of genres such as the western, film noir and science-fiction are studied. Quizzes and homework complement the class work; there are occasional in-class essays.

Dance in Historical and Cultural Perspective (0881) (DHCP)

Grades 9-12

History/Appreciation

This course looks at dancing as it exists in a variety of world cultures – including our own – as social activity, as an expression of religious beliefs, as popular entertainment, and as high art. Through a combination of visual materials, readings, discussion, and in-class essays, the students ask and answer such questions as “What is dancing?”, “Why do we dance?”, “Why are there enemies of dance?”, “Where does choreography come from?”, and “How has dance evolved over the course of history?”. In addition to the class work, there are sessions in the dance studio where we try out what we’ve been studying, from social dances of various eras to ballet, modern dance, jazz and even recent film choreography. Quizzes and homework assignments complement the classwork and studio sessions.

Dance Workshop (0883) (DNW) for Arts Credit or (0957) (D1PE) for PE credit

Grades 9-12

Performance/Studio

May be taken for Performing Arts credit OR Physical Education credit -- meets 5 days out of the 10-day cycle for the entire year. Participation in after-school sports does not exempt students from Dance Workshop.

There are multiple sections of Dance Workshop. Students are placed not by grade level but according to skill level as assessed by the dance teachers. Placement is also dependent on fitting the section assignment into one’s schedule. Although a student may move from a primary to an intermediate level of dance, it will not be indicated by a separate course number. The transcript will simply show continuing participation in Dance Workshop.

Dance Workshop emphasizes the development of a strong technical base in Ballet, Pilates, Yoga, Modern Dance, Jazz, Tap, Hip-Hop and an awareness of other world dance influences. Training includes warm-up, improvisation, alignment, stretching exercises, and traveling combinations. Rhythmic awareness and the relationship of music to dance is stressed throughout.

Dance Performance (0885) (DNP) for Arts Credit or (0959) (D3PE) for PE credit

Grades 10-12

Prerequisite: approval of the instructor

Performance/Studio Maximum 15 students

May be taken for Performing Arts credit OR Physical Education credit--meets 5 out of the 10-day cycle for the entire year. Participation in after-school sports does not exempt students from Dance Workshop.

This course builds upon the foundations established in Dance Workshop and finally places the emphasis on performance. This culminates in presentations for Book Day, various assemblies and The Tilles Dance Conference at Long Island University.

Theatre, Dance, and Film Studies

One-third credit courses

Performance in Major Theatre and Dance Productions

Grades 9-12

Full participation in a trimester play or dance concert is required to receive a third-credit. Meets Mondays, Wednesdays and Fridays, end of school until 5:45 p.m.

Performance/Studio

Three fully-staged productions of important examples of world theatre are undertaken each year. Through them, students explore the art of theatre in all of its complexity. The Theatre Company aims to create the most professional productions possible. Actors learn style, interpretive skills, movement, vocal production, and gain experience in making commitments and meeting deadlines.

The goal of the Dance Company is to inspire and guide students in all elements of dance, choreography, and performance skills. The dance concert consists of both faculty and student-generated choreography, providing dancers with an optimum rehearsal and performance experience.

Stagecraft (Crew) (after school)

Grades 9-12

Performance/Studio

Active participation for a trimester is required to receive a third-credit. Meets Tuesdays and Thursdays from end of school until 5:45 p.m.

Four fully- staged productions of important examples of world theatre are undertaken each year. Through them, students explore the art of theatre in all of its complexity. The Theatre Company aims to create the most professional productions possible. Students learn technical skills such as carpentry, painting, sound engineering, and theatrical lighting, and gain experience in making commitments and meeting deadlines.

To take this course, the student must simply go to crew on one of the first three crew days in a trimester and commit to the Technical Crew for that trimester. The faculty will register the members of the class at the end of the second week of meetings.

Visual Arts

History of Art

Full-credit courses

Advanced Placement Art History (0719) (APAH)

History/Appreciation

This course is for students in grades eleven and twelve. Any student who has performed adequately in at least one Introduction to Art History Course will be accepted into the course. Students who have not taken an Art History Course are eligible for the class based on departmental approval.

This course is largely based on the standards set by the College Board as well as the typical college art history 101 course. However, students must expect supplemental projects and experiences that take advantage of the museum and gallery resources of New York City. The course will consider art beginning with the Ancient Near East and will end with a discussion of early 21st century digital art. Topics will include art and culture both from the European tradition and beyond the European tradition. Of special interest students will serve as docents in the Metropolitan Museum of Art, guiding our entire 8th grade through the East Asian Collection of Hindu and Buddhist Art.

History of Art

Half-credit courses

Introduction to Art History: The Ancient World (0701) (IAHA)

History/Appreciation (not offered 2015-2016)

This course covers architecture, sculpture, and painting as well as the decorative arts in the western world from Prehistoric Europe, the Ancient Near East, Greece, and Rome. There is also a consideration of the art from Meso-America, China, Africa and the Indian Subcontinent. This course also focuses on the changing intellectual, literary, social, historical and political climates surrounding these works of art. Students gain an understanding of the various possibilities involved in weaving a historical narrative and acquire the tools of visual analysis that will allow them to intelligently approach and understand works of art from vastly differing contexts. Architecture and museum assignments are a vital and exciting portion of this course.

Introduction to Art History: The Renaissance (0702) (IAHR)

History/Appreciation

This course is designed to provide a foundational knowledge of artists, genres, techniques, works, and comprehensive context(s) of the Renaissance in both Southern and Northern Europe. Seminal works of art will be explored in depth and students will be given the opportunity to ponder canonic images by artists such as Raphael, Michelangelo, Leonardo, Hieronymus Bosch, and Pieter Bruegel the Elder. Along with a greater understanding of history, students will gain the ability to “read” Renaissance images. Architecture and museum assignments are a vital and exciting portion of this course.

Introduction to Art History: History of Contemporary Art (0703) (IAHC)

History/Appreciation

This course introduces students to architecture, painting, sculpture, and other media created by artists from the 19th century to the present. The course provides an in-depth study of the origins of Modernism, and allows students to explore works by artists such as Edouard Manet, Claude Monet, Mary Cassat, Vincent Van Gogh, Pablo Picasso, Jackson Pollock, Frank Lloyd Wright, Donald Judd, Barbara Kruger, and many others. Works are placed in the social, political and cultural context of their production, offering students an understanding of modern history in addition to the crucial skills of formal analysis. Museum, and various NYC site visits are an exciting requirement of this course.

Studies in Art History (0710) (SIAH)

History/Appreciation

Grades 11-12 (prerequisite: 2 introduction classes OR AP Art History OR departmental approval)

Studies in Art History is designed for students who discover an interest in the discipline of Art History outside or beyond the AP curriculum. The topic-based course offers students the opportunity to delve in-depth into a particular subject in an advanced seminar setting. Museum visits and other in-person engagements with works of art are an integral part of this course. **The 2015-2016 topic for the Studies course will be: *Imagination and Fantasy in Renaissance Art.***

History of Photography (0712) (HOPH)

History/Appreciation

Grades 10-12

This course will present an overview of the major historical and critical issues in 19th, 20th and early 21st century photography. We will explore contemporary uses of photography, including the impact of digital imagery and the World Wide Web. As a medium, photography is closely linked to cultural, scientific and technological developments. We will examine photography's history and status as an art form, as a vehicle for social issues, and as a technological practice. Students will complete reading assignments and project research, and will make presentations to the class. We will examine such recurring themes as "Art or Technology" and "Document or Fiction." Questions regarding the role of photography in constructing notions of reality and of racial, sexual and gender identity will be addressed. There will be a final project in lieu of a final exam.

Studio Art

The Studio Arts Division at Horace Mann School offers students intensive and comprehensive instruction in several major disciplines of art. Each studio discipline is designed with a specific, formal sequence of courses, from the Foundation level to the Advanced level, thereby insuring an appropriate level of mastery at every stage of a student's program of study.

All Studio Arts courses should begin with the Foundation level. Foundation I and Foundation II courses are prerequisites for all the Advanced, Honors, and AP level courses. Disciplines can be crossed only by returning to the Foundation level course, in the newly chosen discipline. Exceptions to the sequence can be granted by departmental approval. But such students must demonstrate an appropriate level of mastery through an interview process and portfolio presentation.

The Studio Arts Division strongly encourages interdisciplinary work among its students, enriching a core study sequence with the philosophy, mediums, methods, and technologies of related and disparate artistic disciplines, the sciences, and the humanities.

Studio Art

Full-credit courses

The Honors level courses demand of students the highest standards of critical thinking, creative process and assured technique in their respective fields of study.

Prerequisites: Approval of the Department.

Performance/Studio

Grades 11 & 12 only

The AP Level: Department Approval and advanced standing are required. Most students will have completed the 1, 2 & 3 sequence of courses.

Honors Ceramics (0737) (HCER)

Honors in Drawing & Painting (0757) (HDP)

AP Drawing & Painting (0759) (APDP)

Honors Photography (0767) (HPTO)

Honors Photography 2 (0768) (HPT2)

Students who were enrolled in Honors Photography during their junior year may continue their work in photography by enrolling in the Honors Photography 2 course.

AP Photography (0769) (APPO)

Honors in Printmaking (0777) (HPRT)

Honors in Sculpture (0787) (HSCU)

Studio Art

Half-credit courses

Foundation Level I & II

All studio courses above Level I require departmental approval

Introduction to Ceramics I (0731) (CER1)

Performance/Studio

This course is an introduction to ceramics. Basic clay forming techniques will be explored, including pinch, coil, slab construction, and the potter's wheel. Students will learn the basics of using clay as a

vehicle for self-expression, focusing on utilitarian and sculptural forms. Students will acquire the basic skills and technical knowledge needed to gain an understanding of the nature of working in the ceramics medium.

Ceramics II (0732) (CER2)

Prerequisite: Ceramics I

Performance/Studio

“Wheel Throwing”

This course is an introduction to the potters wheel and will build upon the knowledge gained in Ceramics I. Functional and sculptural wheel thrown pottery will be explored, as well as glazes, slips, and other decoration techniques. This course focuses on technique and skill-building while leaving room for the student's own creative input.

Introduction to Drawing & Painting I (0751) (DP1)

Performance/Studio

An introduction to the fundamentals of art, this course develops "visual literacy" through the study of basic design concepts: line, shape, color, etc. Along with learning traditional *conventions* of representation, students are encouraged to develop the confidence and ability to express their individual and unique perceptions. Course work includes studio and out-of-class assignments. The boundaries of materials and techniques are open and can include varieties of approaches such as drawing with string or painting with light; or perhaps, even wind.

Drawing & Painting II (0752) (DP2)

Prerequisite: Drawing & Painting I

Performance/Studio

Lessons in visual perception, communication and expression through pictures, from world historical traditions to contemporary practices.

This course is designed to acquaint students with universal principles and cultural specifics of the pictorial arts. Sequential lessons will tell the story of our shared pictorial heritage, with an emphasis on concepts, history, themes and selected mediums. Students will create artwork that illustrates and enhances the ideas covered in class. Attention to artistic scholarship, fine craft and skill development will be emphasized.

The artwork produced will of course be reflective of each student's personality and special interests and strengths. However, this is not a course of personal expression for the sake of expression alone. In this class students will be expected to learn specific approaches and techniques in the spirit of artistic inquiry; through that discipline, creative individuality will come.

Photography I (0761) (PT1)

When everyone is taking pictures, what makes someone a photographer? Photographers possess a sophisticated level of knowledge, understanding and skill. This course introduces the basic technical and aesthetic concerns of photography, visual thinking, personal expression, camera handling and darkroom procedures. Students will use Single Lens Reflex cameras, both film-based and digital. The “hands-on” experience is supplemented with classroom discussions, lectures, slides, demonstrations, and readings. Topics include defining a subject, the principles of exposure and contrast, film development, digital capture, file management and printmaking. Darkroom time during school hours is an integral part of the course. Field trips to galleries and exhibitions are planned when possible. Students must have access to a 35mm film camera with manual controls and must purchase their own film and printing paper. Digital SLR cameras can be borrowed from the School. Financial assistance is available to qualifying students to provide equipment and materials.

Photography II (0762) (PT2)

Students are encouraged to expand their understanding of the possibilities of photography as an artistic medium while continuing to refine their technical skills and individual interests. The course explores various approaches to photography including documentary, narrative, constructed image, experimental and digital imaging. Sensitivity to the qualities of light and control of lighting conditions are also stressed. The basic principles of color photography are presented. Field trips to galleries and exhibitions are planned when possible. Digital SLR cameras can be borrowed from the School. Financial assistance is available to qualifying students to provide equipment and materials.

Introduction to Printmaking I (0771) (PNT1)

Performance/Studio

This course is an introduction to the printmaking medium. Students will explore traditional printmaking techniques including, woodcuts, etching, rubbing, silkscreen, and photographic silkscreen through a series of challenging assignments. Students will develop their drawing skills, study concepts in composition, learn new techniques, and explore their imaginations in an exciting art studio environment.

Printmaking II (0772) (PNT2)

Prerequisite: Printmaking I

Performance/Studio

In this course students will continue to develop their skills and will focus on specific printmaking techniques. Etching techniques such as aquatint, sugar lift, spit bite, and crayon transfer with multicolor etching may be explored. In silkscreen, students may explore four-color processes in photo-silkscreen. And with woodcut, multi-block printing, cut blocks, and airbrushing with stencil prints are explored. Conceptual development, self-expression, meaning/message, an understanding of composition are emphasized.

Introduction to Sculpture I (0781) (SCL1)

Performance/Studio

In this course students will explore the elements of three-dimensional design. Traditional sculpture techniques will be explored along with non-traditional and experimental processes. Students will learn to cast, mold, fabricate, and carve a variety of materials including corrugate board construction, paper/paper-pulp, gelatin cast, and working with clay, wood and plaster. Students will develop their technical and conceptual art-making skills within a supportive and creative environment.

Sculpture II (0782) (SCL2)

Prerequisite: Sculpture I

Performance/Studio

Students will learn to further explore three-dimensional space through the use of mixed media, sound, light, and movement. Students will develop a stronger understanding of the concepts of sculpture and will continue to develop technical skills in casting, carving, and fabricating a wide variety of materials.

Advanced Half Credit Courses

Advanced Level Studio Art Courses

Prerequisite: Foundation Levels I & II or departmental approval, based on portfolio review.

Grades 11 & 12 only

Ceramics III (0733) (CR1)

“Topics in Ceramics”

Prerequisite: Foundation level courses

Performance/Studio

Each year, Advanced Level III ceramics students will engage in activities that focus on specific aspects of working in the ceramics medium. Topics will vary and rotate from year to year. Possible topics may include: Multimedia Ceramics, Ceramics and the Printed Image, Mold Making & Casting, Tableware, Ceramic Sculpture, 2D Ceramics, Glaze Formulation, Alternative Firing Techniques, Site Specific Sculpture, or Architectural Ceramics.

Ceramics IV (0734) (CR4)

“Advanced Ceramics”

Prerequisite: Ceramics III

Performance/Studio

Advanced Ceramics IV students work on an independent-study basis. Through research and consultation, students will develop their own series of assignments and projects. Creative problem-solving and self-expression are paramount. This course requires students to be self-motivated and seek out answers to their own questions. Students will develop, discuss, and exhibit their artwork throughout the school year.

Drawing & Painting III (0753) (DP3)

Prerequisite: Foundation level courses

Performance/Studio

This is an advanced course in the techniques and media of drawing and painting. This course is for students seriously interested in developing their abilities. This course allows students the opportunity to concentrate on individual projects in preparation for the A.P. level.

Drawing & Painting IV (0754) (DP4)

Prerequisite: Drawing & Painting III

Performance/Studio (for seniors who wish to continue in a ½ credit course)

Drawing and Painting IV allows the advanced student to continue working on personal vision projects. The instructor will be available for advice and technical help in the realization of this vision; however, the student is responsible for the design of the projects undertaken. The student will share the work on a regular basis with other classes working in the same discipline. The personal projects will be shown as part of the end-of-the-year show, and are also eligible for application to juried shows during the year.

Photography III (0763) (PT3)

This course emphasizes individual choice of subject matter and method. Building on a firm understanding of photographic techniques, exposure, film processing, digital capture and printmaking, students are encouraged to investigate the interrelationships of subject, concept, technique and presentation. Class discussions and slides introduce students to special topics in contemporary photographic practice and theory. Each student will create a “body of work” or portfolio which will be discussed in depth by the class. Field trips to galleries and exhibitions are planned when possible. Digital SLR cameras can be borrowed from the School. Financial assistance is available to qualifying students to provide equipment and materials.

Photography IV (0764) (PT4)

Photography IV is a continuation of Photo III for qualified students.

Printmaking III (0773) (PR3)

Prerequisite: Foundation Level courses

Performance/Studio

This course provides advanced students with the opportunity to develop their expertise in an area of printmaking which they choose (e.g. woodcut, etching, silk-screen). Methods of making viscosity prints are also introduced. Students are encouraged to explore a particular technique and material in order to express their personal artistic statements. Creative freedom and self expression are paramount.

Printmaking IV (0774) (PR4)

Prerequisite: Printmaking III

Performance/Studio

Printmaking IV allows the advanced student to continue working on personal vision projects. The instructor will be available for advice and technical help in the realization of this vision; however, the student is responsible for the design of the projects undertaken. The student will share the work on a regular basis with other classes working in the same discipline. The personal projects will be shown as part of the end-of-the-year show, and are also eligible for application to juried shows during the year.

Sculpture III (0784) (SC3) IV(0785) (SC4)

Prerequisite: Foundation Level courses

Performance/Studio

Sculpture III, and Sculpture IV, allow the advanced student to continue working on a personal vision project. The instructor will be available for advice and technical help in the realization of this vision; however, the student is responsible for the design of the projects undertaken.

The student will share the work on a regular basis with other classes working in the same discipline. The personal projects will be shown as part of the end-of-the-year show, and are also eligible for application to juried shows during the year.

Video Production 9th and 10th Grades (0791) (VPR1)

Performance/Studio

Using digital/HD video, the class explores a variety of individual and team projects while learning the language of cinema. Examples culled from Hollywood, Independent and World cinema are examined and incorporated. Students initially work on class assignments, and then create personal and/or group movies. Special effects techniques will be acquired to help create deeper meanings. Learning to master editing in the professional, industry standard of FinalCutProHD, provides individuals with the means to fully achieve their visions.

Movies made in this course have included: action/adventure, claymation, comedies, crime, documentaries, dramas, funny horror, mockumentaries, music videos, socially responsible activist works, abstractions, as well as unique remakes of the great classics.

Video Production 11th and 12th Grades (0792) (VPR2)

Prerequisites: any foundation level visual arts course or permission of the instructor.

Performance/Studio

Although this course builds on concepts and techniques offered in the 9th and 10th grade video level, one can enroll in the 11th and 12th grade level without that prerequisite.

Building on the above course description, this class will create movies with more sophisticated visual and narrative structures. Students will work with the 'hidden' connections between shots, explore advanced sound editing, capture and creation, directing actors, learn lighting set-ups to obtain optimal picture quality, as well as create projects that emphasize crafting elements into a complete whole.

Computing & Communications

The Computing and Communications Department strives to help every student gain the proficiencies needed in an era of diverse and rapidly changing technologies. The flexibility of the program and its emphasis on computers as tools encourage students to explore the applications of computers to schoolwork while developing a foundation for continued computer education. Every member of the school community has access to a large state-of-the-art microcomputer network, including file servers, electronic conference areas, an online course management system, electronic mail, and electronic research databases.

The Computing and Communications Department also offers a range of introductory and advanced opportunities in computer applications and Computer Science. These courses cover topics ranging from media literacy, desktop publishing, HTML and Java to advanced courses in robotics, Computer Science and web site management.

Requirement:

- Class of 2015 and 2016 -One Half-Credit Course in grades nine through twelve.
- Class of 2017 and 2018-Either Introduction to Computer Science or Introduction to Microcontrollers and Robotics in grades nine through twelve.

Half-Credit Courses

Introduction to Computer Science (0620) (CPS1)

Grades nine through twelve

The FUNDamentals of Computer Science takes you beyond being just a user of technology, you become the producer by studying the insides of the computer from hardware to software. In this course students will learn about the principles of computer science in a hands-on environment that includes plenty of time to explore and create. Topics will include Internet security and safety, data representation, exposure to programming principles (HTML, JavaScript, CSS, Arduino, JAVA, Scratch and/or Snap!). Using computers is easy when you've got the basics, but this course will teach you the magic that goes on in the box.

Introduction to Microcontrollers and Robotics (0619) (ENGT)

Grades nine through twelve (departmental approval required for 9th graders)

Ever wonder how all those electronic gadgets work? Curious about what makes a robot work or what is inside the brick that controls the robot? This course will introduce engineering alongside programming concepts. Start the year learning to make electronic gadgets using the Arduino microcontroller and a variety of sensors, motors and LEDs. Later in the year class transitions to the Tetrix building system to design and program robots that are similar in size and form to robots built by the Horace Mann robotics teams. Students should anticipate documenting their work in a journal, using 3D modeling software, coding in compiled programming languages and spending time in the lab finishing their projects.

This course would be an appropriate entry point for a ninth grader interested in joining the robotics team. The robotics team participates in the F.I.R.S.T. program in the Tech Challenge. This course would also be an appropriate intermediate level course following CS1 for those students who enjoyed the engineering section of the introductory course.

Digital Publishing (0614) (DPUB)

Grades ten, eleven and twelve

Students enrolled in this course will study and practice in developing interactive media for the Web utilizing HTML5, JavaScript, CSS, and web publishing applications. Introductory skills will be covered using industry standard software to create, edit, and process digital media content for use in specific applications such as interactive web sites, nonlinear, and linear productions. Students will also learn the use of professional desktop publishing software for developing electronic media products. Students will apply the principles of typography and graphic design to develop documents, which combine text, graphics, and photographs on a printed page and in electronic formats. Adobe InDesign CS6 and Adobe Photoshop CS6 will be used as the main applications in addition to iBooks Author and other cloud based publishing software.

Media and Culture (0613) (MDCL)

Prerequisite: Introduction to Computer Science, Digital Publishing, or departmental approval

Students in this course will learn to analyze and study the media surrounding them, and then apply their knowledge to the creation of new media. Students will learn the tools of constructing and deconstructing media. The analysis and creation of media are necessary to become an intelligent consumer of modern media. As a means of expressing their involvement with the modern culture of media consumption, students will create thoughtful media using digital cameras, video cameras, and tools such as iMovie '11 and Adobe Photoshop CS5.

Computer Science 2 (0621) (CPS2)

Prerequisite: Introduction to Computer Science, Digital Publishing, or departmental approval

Take a journey from the 1980's to the 2000's through the eyes of a computer scientist. In this intermediate-level course students will learn about object-oriented design, one and two dimensional data structures, and recursion while exploring the history of the user-interface from console driven keyboard programs to modern day event driven devices. Projects may involve creating arcade games, making a Facebook-like application, drawing fractals and making an Android application.

Web 2.0 (0612) (WEB2)

Prerequisite: Introduction to Computer Science, Digital Publishing, or departmental approval

With the advent of Web 2.0, new technologies have made the experience of the Web more interactive. With this in mind, students will use a variety of design concepts as well as tools to produce quality web site content. The course will allow students to learn and work with Adobe Dreamweaver CS6, Adobe Photoshop CS6, cloud computing applications, Podcasts, weblogs, HTML5 and other software packages that are essential to produce Web 2.0 online content. Much of the course will incorporate working in the "cloud" computing environment inside and outside of the class.

Full Credit Course

Advanced Placement Computer Science with Data Structures (0623) (APCS)

Prerequisites: Computer Science II or departmental approval

The Horace Mann AP Computer Science course prepares students for the most current AP Computer Science exam and in addition teaches content consistent with most college and university CS1 and CS2 courses. The course topics include study of algorithms and data structures including linked lists, sets, maps, queues, stacks, trees, and hash tables. The course is taught using the Java programming language. Students are expected to take the AP exam at the end of the year. The department recommends students take this course after completing Computer Science II.

Counseling and Guidance

Requirements:

HMO in grade nine

Quest in grade eleven

Horace Mann Orientation (HMO) – Grade 9

Horace Mann Orientation (HMO) is a required, weekly support and orientation program for 9th grade students in the 1st trimester. This course is primarily intended to foster connections among 9th graders and between them and the 11th and 12th grade Peer Leaders who co-lead the groups with HM faculty members. As students acclimate to the HM Upper Division, this program also offers study skills support and an introduction to HM clubs, community service, and other extracurricular activities. Students also learn to utilize school resources. HMO teachers consist of faculty from various departments, including the Department of Counseling and Guidance, and grade-level deans.

Quest -- Grade 11

This course is a required, weekly discussion-based seminar for juniors in the 2nd and 3rd trimesters. The discussion topics focus on the theme of self-awareness, especially in relation to larger communities. Quest provides an opportunity for students to reflect on who they are, how they have come to be that way, and who they want to be in the future. By discussing both timeless and current themes and issues, students widen their knowledge of themselves and others, as well as explore their place in the world. The course is facilitated by Counseling & Guidance faculty and faculty from other departments.

Introduction to Psychology (0900) (IPSY)

Grades Eleven and Twelve

This year-long course examines the field of psychology, including the theories, research, and applications that constitute the discipline. The goal is to teach students about the science of psychology and to observe the applications in everyday life. Psychology offers the opportunity to better understand one's own and others' behaviors, explore a potential career path and encourage intellectual discovery. Specific topics include history of psychology, research, memory, intelligence, mental illness, treatment of psychological disorders, social psychology, and development. The issues and topics will be explored through textbook and supplementary readings, case studies, lectures, discussions, films and guest speakers.

AP Psychology (0901) (APPY)

Grade twelve

Prerequisite: Introduction to Psychology and approval of the department

This course is designed to represent college-level psychology studies. Students will study various approaches to psychology, types of research in psychology, facets of human behavior and cognition, neuroscience, and the treatment of various disorders. In addition, this course will examine topics in greater depth than the introductory course does, and will present some topics not covered in the introductory course. A strong emphasis will be placed on research within the various subfields of psychology. Independent projects will be required. Materials to prepare for the AP Psychology exam will be provided and practice exams will be offered.

Ethics in School and Society (0903) (ETES)

What is a good life? What is the purpose of education? How do we understand inequality? Are people naturally selfish, or altruistic? Questions like these are just the beginning of a study of ethics. Should there be a military draft? Should abortion remain legal? Should grading be abolished? Should the legal drinking age be changed? All of these issues have major ethical components.

This major elective course will serve as a year-long journey through the theory and practice of ethics in school and society. Students will gain a basic understanding of systems of ethics in history, as well as current controversies in ethical thought and action. Along with readings and lectures, classes will include discussion, debates, field trips, video and audio presentations, guest speakers, and an emphasis on student-directed inquiry. In addition, the class will include a service-learning component. We will engage in individual and group projects, at school and in the wider community, in order to act, learn, and reflect on central ethical and moral issues.

English

Horace Mann's Department of English trains students to be good readers: of texts, of the world around them, and, ultimately, of themselves. From ninth grade on our students develop their analytical skills through the study of a broad range of challenging texts, lively and probing seminar style discussions, and focused, challenging critical and creative writing assignments.

"Show don't tell" is a familiar refrain in our classrooms, shorthand for our emphasis on working from particulars to a general theory. In that sense, we foster a culture of evidence rooted in close reading. We assign fewer texts in order to emphasize attention to the details that give a work of literary art its richness and complexity. Seminar style classes put students' critical engagement with the texts at the center of our practice.

Grades nine, ten, and eleven have set curricula determined by each teacher. Senior electives, intensive one-trimester courses designed by faculty, culminate the study of English at Horace Mann. In addition, we offer one section of English AP. Admission is competitive.

Requirement:

Continuous enrollment in English, grades nine through twelve.

English Nine, Ten, and Eleven

In grades nine through eleven, the course of study in English is organized around the major literary genres: Poetry, Drama, and the Novel. In their senior year, students take trimester electives focused on authors, literary movements and themes, or creative writing. In the year-long courses freshman through junior year, individual faculty members develop their own curriculum at each grade level and for each genre, with an eye to including a wide variety of literary voices from a wide variety of literary traditions, time periods, and cultures. This approach not only expands students' awareness of literature's diverse range and scope, but it also helps students identify connections between seemingly disparate works.

In the past, students have studied Sophocles' *Oedipus Tyrannus* in tandem with Wole Soyinka's *Death and the Pale Horseman*, Genesis with *The Odyssey*, and *Frankenstein* with *The Turn of the Screw* and *Benito Cereno*. These juxtapositions broaden our awareness of the shared concerns and different approaches across different literary traditions. Exposure to multiple traditions also presents students with multiple ways of defining and engaging with a literary canon.

English 9 (0012)

All ninth graders begin their work in English with an ungraded writing trimester. Students write every day, in class and at home, and in a variety of styles, ranging from dialogues to poems, detailed descriptions to longer personal narratives. Daily writing is accompanied by daily feedback. We teach writing as a process. The class is taken pass/fail, a practice which allows us to keep the focus on the student's work and the teacher's feedback, and to give students the space to take risks and experiment. The following two trimesters involve the reading and analysis of literary texts, and the study of grammar. Grammar study culminates in April with a grade-wide grammar test.

English 10 (0014)

Students in tenth grade continue their literary studies in courses designed by their teacher. All tenth grade students study drama, poetry, and prose fiction with with a continuation of our grammar curriculum. As in ninth grade, a grade-wide grammar test is given in April.

English 11 (0016)

In English 11, genre study intensifies with one trimester units on poetry, drama, and the novel. All English 11 students complete a major research paper that brings together skills they have been working on since ninth grade: close reading, building from evidence to

argument, comparative analysis, and independent critical thinking. Depending on the class, research engages student in comparative literary-critical analysis, individual author studies, or New Yorker-style profile pieces. Regardless of the project, students work step by step, from searching for, sorting, and synthesizing a range of primary and secondary sources to developing from that material an extended critical-analytical study of their own.

Senior Electives (0018) (E12)

All seniors not in Advanced Placement English take three consecutive one-trimester electives. With the permission of the Department, these electives may be taken by eleventh grade students in addition to English 11.

The offerings each trimester cover a broad range of literary periods, themes, and genres. Some courses stress expository or analytic writing; others engage students in writing original poems or short stories. The Department varies electives in response to its own changing composition and the changing needs of our students.

Senior Electives recently offered:

Always Be Closing: The Work of David Mamet
Cultural Perspectives in Literature
Shakespeare and the Genres
Metamorphosis: A Thematic Approach to the Novella
Literature and Film
Toni Morrison
British Romanticism: Visions and Revisions
The Iliad
The Bible as Literature
The Short Story
Emily Dickinson
Bad Guys, Spies, and Private Eyes
Writing Nature, Writing Ourselves
New York Poets
Poetry Writing: A workshop
Poets of Moment: Billy Collins, Pablo Neruda, and Naomi Shihab Nye
Tolstoy
Now You See It: Magic and the Magician in Realist Literature
Americas: Other Voices in American Fiction
Anything Goes: British Eighteenth Centuries
Bad Girls: Exploring Female Misbehavior
Metamorphosis: A Thematic Approach to the Novella
Posthumanism: Freaks and Cyborgs

Advanced Placement English (0020) (APE)

The department offers one section of Advanced Placement each year. Admission is competitive, and requires grades in English which average closer to an A- than to a B+, as well as the permission of the department. Applicants are also required to provide a writing sample.

The curriculum of AP English consists of readings in poetry, Shakespearean drama, the essay, and prose fiction. Works considered in the current school year include *The Turn of the Screw*, *The Tempest*, *Heart of Darkness*, *To The Lighthouse*, *Beloved*, *King Lear*, and *Waiting for Godot*, among other works. Major units cover satire in its various forms and contemporary critical theory. Extensive written work accompanies the texts and emphasizes analysis of literary themes, styles, and techniques. Students in AP English are required to take the Advanced Placement Examination.

Foreign Languages

We teach languages, not only as basic tools of communication in an increasingly interdependent world, but also as a central and distinctive feature of human life. By stressing four basic skills—listening, speaking, reading, and writing—we aim to impart a love and respect for languages, and for the cultures and communities that speak them. Through art, film, authentic texts—both literary and other—and a wide array of sources available on the Internet, students not only learn the languages but also become acquainted with the culture, geography and history of the countries where they are spoken.

Graduation Requirement:

Sequential study through at least the third level of a full-credit language offering available in Chinese, French, Italian, Japanese, Latin, and Spanish. A minimum grade of C- is required to move to the next level of study. The grade of D in any language course gives the student credit for the course, but prohibits the student from continuing to the next level in the sequence of study. Students are encouraged to continue with language study throughout their four years in the Upper Division.

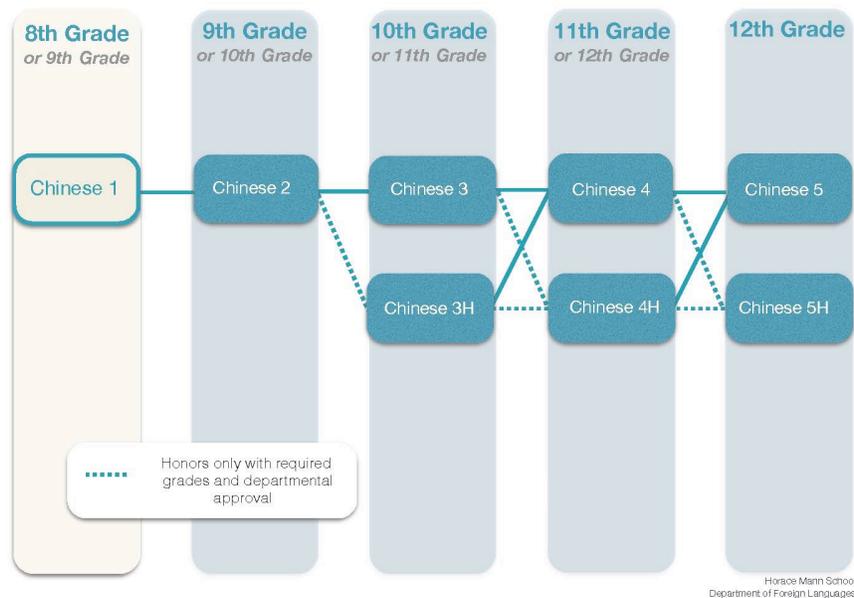
Requirements for Honors Courses:

Honors Courses are offered to students who excel in all four skills and demonstrate remarkable interest in the language. This designation is available at level 2 in French and Spanish and at level 3 in other languages. To remain in the honors track, students must maintain a minimum grade of B+ unless otherwise specified in course descriptions. Students who wish to move from a regular track to an honors level must achieve a grade of at least A- in the regular track course, and may be required to take an additional skills based assessment in order to obtain departmental approval.

Chinese

General Policies: Students interested in moving from a regular to an honors level must achieve a final grade of A- in the regular class and attain departmental approval.

Chinese Sequence



Chinese I (0285) (CHI1)

This course for beginners meets five days per week and emphasizes the fundamental elements of spoken and written Mandarin Chinese. Functional language is emphasized as language skill acquisition goes hand-in-hand with cultural exposure. The tone system, phonetic transcription, word order, grammar, and the basics of writing Chinese characters are important features of this class. Both simplified characters and traditional characters are used.

Chinese II (0287) (CHI2)

Prerequisite: Chinese I or placement exam

The second-level Mandarin Chinese language course will build on the basic skills acquired in Chinese I. There is an emphasis on colloquial usage, self-expression (both in speech and in writing), and Chinese culture, such as Chinese Lunar New Year and the Mid-Autumn Festival. Both simplified characters and traditional characters are used.

Chinese III (0289) (CHI3)

Prerequisite: Chinese II or placement exam

The third-level Mandarin Chinese language course is a continuation of Chinese II. The course continues to build upon the four skills of listening, reading, speaking and writing with increased focus on short compositions. Both simplified characters and traditional characters are used, and cultural topics are emphasized.

Chinese IV (0291) (CHI4)

Prerequisite: Chinese III or placement exam

The fourth-level Mandarin Chinese language course includes a review of basic and intermediate structures within a culture related context. The four language skills of listening, speaking, reading and writing are developed within a variety of classroom activities. Instruction progresses to more extensive practice with advanced grammatical elements, idiomatic expressions, and practical vocabulary. Students are asked to incorporate grammar and vocabulary elements to compose short compositions on designated topics and give multiple oral presentations. This course is conducted primarily in Chinese.

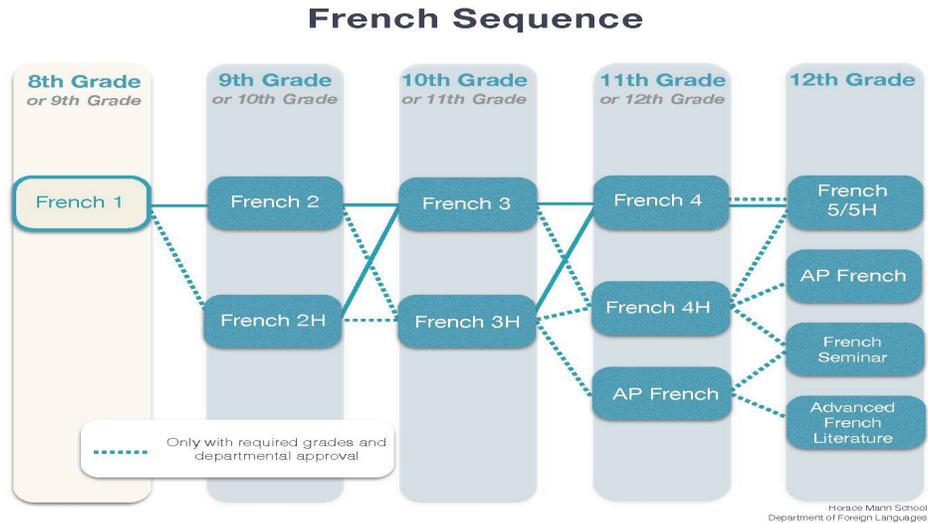
Chinese V Language and Culture (0295) (CHI5)

Pre-requisite: Chinese IV or placement exam

This course is designed to further develop proficiency in speaking and writing through readings and discussion of socio-cultural topics relevant to modern China. Students learn to further improve oral communicative competence by incorporating formal usages. Students also acquire vocabulary and grammar patterns necessary for conducting discussions inspired by selected Chinese films, as well as literary readings (traditional poetry, essays, short stories). Student progress is assessed through self-created dialogs, essays, presentations, comprehension quizzes and comprehensive tests. This class is conducted completely in Chinese.

French

General Policies: Students interested in moving from a regular to an honors level must achieve a final grade of at least an A in the regular class and attain departmental approval. A student wishing to enter an AP class from an honors class must achieve a final grade of an A-, or a B+ and take an additional skills based test, in addition to receiving departmental approval.



French I (0201) (FRN1)

In this beginning level course, which uses multimedia and internet based materials, students are introduced to basic vocabulary and grammatical structures of the language. Readings, songs, poems and other literary materials supplement the curriculum. All four skills are developed, with special emphasis on conversation. Francophone culture, geography and history are incorporated regularly into the course work.

French II (0203) (FRN2)

Prerequisite: French I, placement exam for new students

Although the fundamentals of French grammar are presented formally throughout the year, the emphasis in this course is on the development of fluency in French and on a more detailed study of reading and writing based on literary texts. Appropriate cultural topics are introduced through art and audio-visual materials. The use of French as a vehicle of daily communication is stressed. Active oral participation is of primary importance and is reinforced throughout the year.

French II Honors (0204) (FR2H)

Prerequisite: French I and department approval; placement exam for new students

This course parallels the French II course described above, but with much more extensive literary readings and more in depth study of grammar. Written assignments are given frequently and the course is taught almost entirely in French.

French III (0205) (FRN3)

Prerequisite: French II

This course continues the work of French II. More extensive grammar study, idiomatic expressions, practical vocabulary, readings, geography and culture are the basis of the course. Conversational skills are emphasized throughout the year with continuation of grammar, listening, reading and writing skills

French III Honors (0206) (FR3H)

Prerequisite: French II Honors or French II and departmental approval

Taught entirely in French, this course is designed for students with excellent background in the language. The class revolves around the four basic skills of listening, speaking, reading and writing French. French literature, including poetry and plays, is introduced and studied as a source of language and culture. Grammar is reinforced and vocabulary expanded through readings and constant conversation in French.

French IV (0207)

Prerequisite: French III

This course, taught primarily in French, focuses on the study of the cultures and literatures of the Francophonie along with grammar review in order to support communication. Students read, discuss, investigate, write and make presentations on various aspects of the French-speaking world. Materials are eclectic, and include literature, visual art, music and film.

French IV Honors (0208)

Prerequisite: French III Honors or French III and departmental approval

Conducted entirely in French, this course continues the work of French III honors with intensive practice of all four skills: listening, speaking, reading and writing. Through literary readings, current events, audio-visual exercises and grammar review, this course of study prepares students who wish to continue their studies in the AP French Language and Culture course.

Advanced Placement French Language and Culture (0213) (APFR)

Prerequisite: French III Honors with departmental approval and additional skills based assessment if warranted

Conducted entirely in French, this course prepares students for the Advanced Placement examination in French language and culture. The course is designed to promote fluency. Spoken French is emphasized through various audio sources, language laboratory sessions, films and video clips. Grammar is reviewed thoroughly and frequent reading and writing assignments promote student proficiency in these areas. Readings include representative works by major French speaking authors from the Renaissance to the present. The class also views videotaped versions of the readings, which are then discussed. Students are asked to write critical and analytical essays about literature and other cultural topics.

French V (0209) (FRN5) / French V Honors (0210) (FR5H)

Prerequisite: French IV Honors or French IV and departmental approval

This year long investigation into various aspects of the language, history, civilization and culture of France and the Francophonie offers students the opportunity to continue improving their language skills while they deepen their understanding of the diversity of the French-speaking world. French films and related readings serve as a springboard for discussion and writing. The course, taught entirely in French, asks students to read, discuss, debate, make oral presentations, and write compositions on a myriad of topics. Grammar is reviewed as necessary in order to support the clear communication of ideas.

Advanced French Literature (0215) (AFRL)

Prerequisite: French AP Language and Culture and departmental approval.

The AFRL curriculum reflects a balance of literary works by classical and modern French authors as well as modern “Francophone” texts by non-French authors of high quality. The course will study all major genres: poetry, fiction, drama/comedy, and essay. The chronology of the works selected will extend from the 16th to the 21st centuries. The course, conducted entirely in French, will emphasize close textual reading and analysis. Students will make formal oral presentations in class and will also write essays on assigned literary topics.

French Seminar (0216) (FRTP)

Prerequisite: AP French Language and departmental approval; an A in IV Honors with placement exam
Conducted entirely in French, this course is designed for students who have had significant previous study and who are able to function independently in a French environment. Students at this level demonstrate a high level of proficiency in speaking and writing. The students will attain a broader appreciation of French culture and literature through film, articles, short literary works, and other audio-visual components. The class takes a discussion style format as students debate, inquire and make connections to better understand the French culture. The course is divided into three units by trimester including topics such as: Gastronomy and French cuisine; Education; Introduction to the Francophone world; Immigration; French cinema; French philosophers; Introduction to French literature and theater. Assessment for this class is based on formal and informal expression, both written and spoken, and consists primarily of class projects, essays and oral participation in class.

Ancient Greek

Ancient Greek A (0350) (½ credit)

This entry-level half-credit course covers the fundamentals of the ancient Greek language and conveys a synopsis of the history, culture, and literature of the ancient Greeks. The textbook combines a thematic, story-based approach with structured grammar. In addition to learning basic rules of grammar and memorizing vocabulary, students will come to understand the relevance and scope of Greek derivation in the English language. Students will deepen their acquaintance with the classical world as the class explores how Greek mythology, philosophy, literature, science, and art have jointly shaped the foundations of Western civilization.

Ancient Greek B (0352) (½ credit)

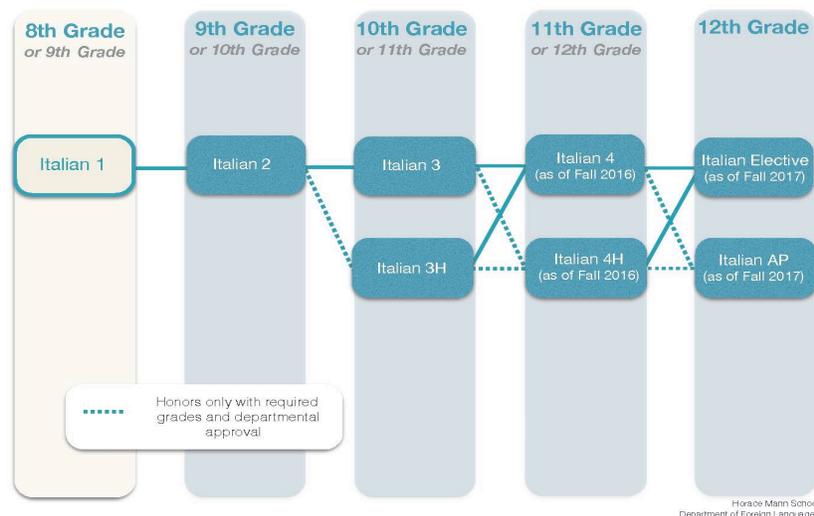
Course Requirement: Completion of Ancient Greek A or its equivalent

This half-credit course continues the work begun in Ancient Greek A. Students complete the study of the grammar and vocabulary essential for moving on to reading authentic Greek. The cultural emphasis of this class rests on the early history and mythology of the ancient Greeks. Starting in the second trimester, the class will read some of Herodotus' most compelling accounts in the *Histories* about protagonists in the Greco-Persian wars, and, time permitting, selected passages from the first book of Homer's *Iliad*.

Sequential levels of Ancient Greek will be added in subsequent years as warranted.

Italian

Italian Sequence



Italian I (0355) (ITL1)

Italian I provides an introduction to Italian language and culture through a communicative and interactive approach. Active participation in class is an integral part of the course. Students will learn about Italy within the European and World context, how students and people live, eat, and study in Italy, and what they do on a daily basis. Students will be engaged in a series of gradually more challenging tasks, through different activities in listening, speaking, reading and writing in every meeting. By the end of the first year students will have acquired the basics of Italian grammar and be able to converse primarily about everyday situations.

Italian II (0356) (ITL2)

Prerequisite: Italian I or placement exam

Italian 2, or Intermediate, is the second year of instruction for those students who have taken Italian 1. In their second year of Italian, the students continue the acquisition of the language in a communicative, yet more systematic way. Italian reality is presented through a variety of passages, articles, and poems aimed at familiarizing the students with culture and civilization while, at the same time, easing the transition from beginning to intermediate Italian. A review of topics is systematically built in, as the students progress forward into new topics and vocabulary.

Italian III (0357) (ITL3)

Prerequisite: Italian 2 or placement exam

In Italian 3 students advance their mastery of Italian language and culture through in depth exposure to grammatical and syntactical aspects of the language. A variety of original sources alongside a textbook are used in class to guarantee students are exposed to the linguistic wealth of Italian and its different cultures. By the end of the third year, students will be able to sustain extended, articulate conversations completely in Italian on a variety of topics, all taken from authentic sources, as well as give individual presentations to the class. They will also be able to write short essay both about themselves and other topics i.e. Italian history, the relationships between the US and Italy, contemporary social issues, such as the environment, Immigrants, the economy, Italian success stories etc.

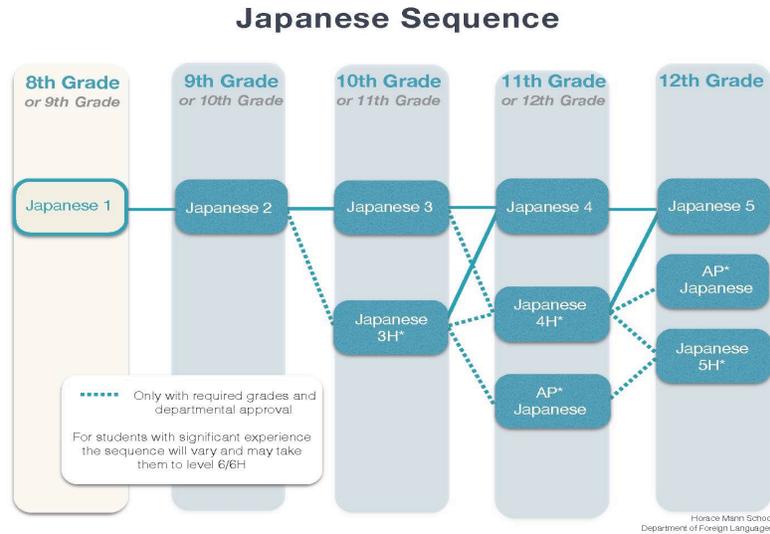
Italian IV (0358) (ITL4)

Prerequisite: Italian 3 or placement exam

Level 4 Italian students have reached a level of competency that allows them to read literary texts chosen from 19th and 20th century Italian poetry and prose. The Internet provides students with direct access to countless sites in Italian, be it universities, art societies, museums, research centers, or firms. Guided discussions, essays and other projects give students an opportunity to create connections with Italian history and society, and how they relate to the present day. This, along with students' previously acquired knowledge of regional and city differences, will allow them to understand, compare and contrast the many regional variations among Italians.

Japanese

General Policies: Students interested in moving from a regular to an honors level must achieve a final grade of A in the regular class and attain departmental approval. Any student wishing to enter an AP class from an honors class must achieve a final grade of an A-, or a B+ and take a placement test, in addition to receiving departmental approval.



Japanese I (0260) (JPN1)

This course introduces students to modern Japanese, building the foundations for understanding, speaking reading and writing the language. The spoken language is emphasized through grammar and vocabulary lessons, interactive dialogues, reading of short texts, and writing short journals in Japanese. Since language and culture go hand-in-hand, elements of Japanese culture are introduced. Students are offered opportunities to experience Japanese cuisine, games, songs and calligraphy. The students also participate in Japan Day and an off-campus trip to a Japanese tea ceremony.

Japanese II (0261) (JPN2)

Prerequisite: Japanese I or placement exam

In this course, students build on the skills acquired in Japanese I with a continued focus on the spoken language, basic grammatical forms and Kanji writing. Students do more frequent journal writing and complete two major projects. In these projects, students participate in a Japanese play and study cultural topics. Students participate in Japan Day as well as a variety of other cultural and experiential learning activities.

Japanese III (0263) (JPN3) and Japanese III Honors (0264) (JP3H)

Prerequisite: Japanese II or placement exam and departmental approval

In this course, students continue building their competence in written and spoken Japanese and mastering a number of complex grammatical forms. Reading comprehension of literary passages, essay and haiku writings, and some Japanese films are used to expose students to the language in authentic and natural contexts. This course emphasizes practical communication skills and the rudiments of the formal language, both written and spoken. The students participate in Japan Day and complete projects on cultural topics.

Japanese IV (0265) (JPN4) and Japanese IV Honors (0266) (JP4H)

Prerequisite: Japanese III or placement exam and departmental approval

This course emphasizes developing fluency in Japanese. It is also a preparatory course for AP classes and the SAT II in Japanese. The course includes a comprehensive grammar review, the writing of essays and poetry, and the reading of simple literary texts. Students plan and perform a play and participate in other cultural events. The writing of Japanese on a word processor is encouraged. This course is conducted primarily in Japanese.

AP Japanese Language and Culture (0271) (APJP)

Prerequisite: Japanese III Honors, IV Honors or placement exam and departmental approval

Conducted entirely in Japanese, this course is designed to prepare the students for the Advanced Placement examination in Japanese Language and Culture. This course aims to foster oral and written proficiency in language and culture. Students will develop the productive, receptive and cultural skills necessary to communicate with native speakers of Japanese. Oral Japanese is stressed and perfected through class discussions, auditory practice, language laboratory sessions, films and frequent reading and writing assignments. Students write expository essays in Japanese and analyze some literary works. Grammar and Kanji are reviewed thoroughly.

Japanese V (0267) (JPN5) and Japanese V Honors (0268) (JP5H)

Prerequisite: AP Japanese, Japanese IV or IV H or placement exam and departmental approval

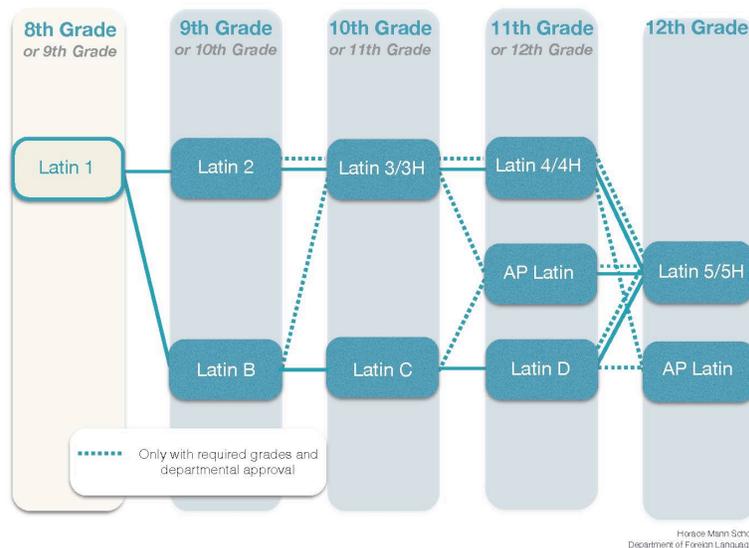
This course is designed for students with a solid Japanese language background. It is also designed for the students who have completed AP Japanese. Students learn to use honorifics, humble and polite language, increase their study of Chinese characters (Kanji), and read literary texts in Japanese. They are encouraged to participate in speech contests and other events, and to use Japanese word processors for writing essays and email. The class is conducted completely in Japanese.

Japanese VI (0269) (JPN6) and Japanese VI Honors (0270) (JP6H)

A continuation of Japanese V and V honors, these courses are for students with advanced skills who have completed all previous course offerings in Japanese. Students are encouraged to complete independent projects that reflect their interests and abilities. The class is conducted completely in Japanese.

Latin

Latin Sequence



Latin I (0301) (LATI)

Latin I is designed for students new to the study of Latin. In this course students are introduced to core concepts of Latin grammar and develop basic reading vocabulary. The primary course focus rests on mastery of declensions, conjugations, and the grammatical structures of the Latin sentence. Students will acquire the skills to read stories adapted from the famous legends of Roman mythology and history. Through the eyes of the great storytellers of Rome students will become acquainted with the classical world, the Roman way of life, and Roman culture. In addition, they will learn to understand Latin as one of the foundational languages of European culture.

Latin B (0304) (LATB)

(Half-credit course)

Latin B is designed for students with one year of prior Latin instruction. In Latin B students continue the study of Latin, strengthening their grasp of Latin grammar and expanding their vocabulary. As they learn to read the language of Caesar, Vergil, and Ovid, among others, they will solidify their reading skills and broaden their capacity for analysis and interpretation. In addition, the course will focus on the traces Latin has left in the English language. It will provide a nuanced understanding of the stories Romans loved to hear, about their gods, their heroes, and their ancestors. Upon successful completion of this course students may continue with either Latin C or Latin II.

Latin II (0303) (LAT2)

Prerequisite: Latin I, completion of MD Classics or placement exam

Students continue their study of Latin by furthering their acquisition of basic grammar, vocabulary and forms. The course includes a review of Latin I and the completion of rudiments of grammar. Students learn much new vocabulary while continuing to work with historical readings. For the first time, students read selections of Latin prose literature in the original, mostly from the works of Caesar.

Latin C (0306) (LATC)

Half-credit course

Prerequisite: Latin B or placement exam and departmental approval

This course is the sequel to Latin B. Emphasis will continue to be placed on the acquisition of vocabulary and more complex grammatical constructions through readings, which explore the history, culture, mythology, and geography of the Roman world. Increased attention will be placed on accurately developing sight reading abilities of Latin prose. Upon successful completion of this course, students may continue with Latin D or Latin III.

Latin III (0305) (LAT3) Latin III Honors (0307) (LT3H)

Prerequisite: Latin II or with placement exam and departmental approval

The objectives of this course are to read, understand, and interpret Latin prose literature in the original. Authors include Cicero, Sallust, and Pliny the Younger as well as some poetry may be read. Students explore the stylistic differences and literary richness of classical authors as well as a more specific theme: the political scene in the late republic and the early empire.

Latin D (0310) (LATD)

Half-credit course

Prerequisite: Latin C or placement exam and departmental approval.

This course is the sequel to Latin C and completes the study of advanced Latin grammar and syntax through primary sources. The objective of this course is to gain increased proficiency in reading authentic Latin by studying selected works of Cicero and Pliny the Younger. In addition to the emphasis placed on producing literal and accurate translations, students will continue to develop familiarity with Latin style while devoting attention to literary and historical analysis. By studying these authors we will also explore the political, social, and cultural background of the late Republic and early Empire, which is the context for these works.

Latin IV (0308) (LAT4) and Latin IV Honors (0309) (LA4H)

Prerequisite: Latin III Honors or Latin D and departmental approval

The objective of this course is to read in the original verse significant portions of Vergil's *Aeneid*, arguably the most important work created during the Golden Age of Latin literature. Students will continue to hone their skills at producing literal and accurate translations while mastering a core vocabulary essential to reading other works of classical Latin. Students will for the first time also explore the language of the poem, through scanning and reading aloud the epic meter, dactylic hexameter. Any true understanding of the importance of this work cannot be done without also exploring the political, cultural, and historical background in which Rome's national epic was created. Those students not intending to take the Latin AP course should consider this course.

Advanced Placement Latin (0317) (APLE)

Prerequisite: Latin III, III Honors or Latin D and departmental approval.

In this course, students read considerable selections of Vergil's *Aeneid* (epic poetry) and Caesar's *Bellum Gallicum* (prose) in Latin. A thorough knowledge of the plot of the remaining portions of each work will be read in English so that significant themes, central characters, and key ideas may be fully explored. This course emphasizes an appreciation of both works as important examples of their respective genres, with special attention paid to literary style, critical interpretation, and the workings of hexameter verse. The political, historical, and cultural environment that gave rise to the figures of Caesar and Augustus will be explored in detail.

Latin V (0312) (LAT5) and Latin V Honors (0313) (LA5H)

Latin VI (0314) (LAT6)

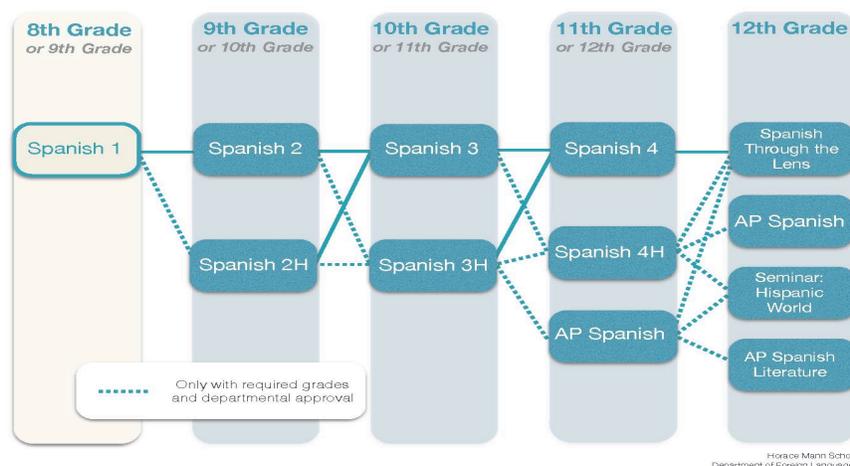
Prerequisite: Latin IV, Latin IV Honors, Latin AP, or Latin D and departmental approval

The objectives of this class are to explore the influential writings of major Roman authors from the Golden and Silver Ages of Latin literature, thus allowing students to continue their study beyond the AP level. Reading selections will draw from both prose and poetry and may include the following authors: Catullus, Horace, Ovid, Martial, Livy, and epigraphic sources. In addition to developing a greater understanding of the nuances of the language, significant attention will be paid to the historical period of the authors, the historical references within the works, syntactical constructions, and poetic styles.

Spanish

General Policies: *Students interested in moving from a regular to an honors level must achieve a final grade of A- in the regular class and attain departmental approval. A student wishing to enter an AP class from a level 3 or 4 honors class must achieve a final grade of at least a B+ and departmental approval. The Department reserves the right to require an additional skills based assessment to determine a student's preparedness for any advanced level course.*

Spanish Sequence



Spanish I (0320) (SPN1)

For students with little or no background in the Spanish language, this is an intensive introductory course. Students learn the fundamentals of spoken and written Spanish. Through active engagement in basic classroom discussions, which are conducted almost exclusively in Spanish, and through the use of a multi-faceted textbook and print and audio-visual materials, students begin to understand and speak Spanish. Simple readings as well as writing exercises on topical subjects complement the course to cultivate a fluency in the written language and a preliminary appreciation of Hispanic cultures.

Spanish II (0321) (SPN2)

Prerequisite: Spanish I; placement exam for new students

A continuation of the work begun in Middle School or Spanish I, this course aims to increase students' mastery of the oral and written language. Students will increase their grammar and vocabulary knowledge with a focus on bettering their comprehension and fluency. To this end, the reading and written assignments of this class will be more complex and students will be asked to begin to synthesize their knowledge of the language by giving short oral presentations and written compositions.

Spanish II Honors (0322) (SP2H)

Prerequisite: Accelerated Spanish I and departmental approval; placement exam for new students

The Honors Spanish II class has the same objectives as Spanish II but moves at a more rapid pace and will focus on the acquisition of more complex grammar elements and the development of a larger vocabulary. Supplemental literary readings, and longer writing and speaking assignments are also required at this level. This class is taught almost entirely in Spanish.

Spanish III (0323) (SPN3)

Prerequisite: Spanish II

Spanish III includes a review of basic and intermediate structures within a rich cultural context. Instruction progresses to more extensive practice with advanced grammatical elements, idiomatic expressions, and practical vocabulary. Students are asked to incorporate grammar and vocabulary elements to compose short compositions and give multiple oral presentations. While some reading passages are included to develop comprehension and build vocabulary, the main emphasis is on oral proficiency. By the middle of the second trimester, this class is taught entirely in Spanish.

Spanish III Honors (0324) (SP3H)

Prerequisite: Spanish II Honors or Spanish II and departmental approval

Conducted entirely in Spanish, this course stresses a thorough review of previously studied structures, advanced grammar, extensive oral practice, reading comprehension, and composition. Selections from works by major Hispanic authors that represent a variety of genres are also studied and discussed. This course is, in essence, a Pre-AP class and students who excel will be recommended for AP Spanish Language and Culture for the following year.

Spanish IV (0325) (SPN4)

Prerequisite: Spanish III or Spanish III Honors

Spanish IV is designed to foster continued development of oral and written proficiency in Spanish. The four language skills—listening, speaking, reading and writing—are developed within a variety of classroom activities, such as debates and presentations. Topics for readings, discussion and student developed blogs reflect cultural topics and current events in the Spanish-speaking world. Short videos, newspaper articles and cultural readings, and compositions with appropriate grammar review aid further linguistic development.

Spanish IV Honors (0326) (SP4H)

Prerequisite: Spanish III Honors or Spanish III and departmental approval

This course in advanced oral and written proficiency is offered to students who have truly excelled in Spanish III, as well as to Spanish III Honors students who maintained a B average, and who may need more practice before continuing to the AP level. This course, conducted entirely in Spanish, offers students additional opportunities to refine their skills and to improve their proficiency in speaking and in writing. While video and audio materials provide opportunities for discussion and writing, literary texts provide an introduction to literary discourse and analysis. Increased oral and written proficiency is the main objective of the class and advanced grammar topics are reviewed to facilitate this development. The reading of a full-length literary text and trip to see the production staged is a highlight of the year.

Spanish through the Lens: Hispanic Film (0333) (SPN5)

Prerequisite: Spanish IV and departmental approval

Students continue to develop their language skills through the study and analysis of Hispanic films and related cultural modes of production. During this course of study, conducted in Spanish, students view and discuss films, as well as read literature (e.g. *poetry, excerpts of novels, essays, short stories*) related to each cinematographic work. Student progress is assessed through analytical dialog, essays, presentations, as well as comprehension quizzes. Relevant grammar is reviewed contextually through these films and related works. The study of several films per trimester will represent a diverse vision of the Hispanic world. The course serves as an introduction to interdisciplinary studies in preparation for university work.

AP Spanish Language and Culture (0329) (APSL)

Prerequisite: a minimum grade of B+ in Spanish III Honors or Spanish IV Honors and departmental approval

Students who enter this college level course are considered Spanish proficient and will work to become fluent by mastering advanced grammar, colloquial speech, idioms, and an extensive vocabulary. To this end, the course is conducted entirely in Spanish and works on the refinement and sophistication of both written and spoken language skills. While grammatical elements will be reviewed, this is a secondary component to the authentic use of the language. A variety of authentic written and audio-visual materials, including Hispanic texts and movies, are the basis for class activities, which include: extensive classroom discussion, oral presentations, and both formal and informal writing. All activities will serve to prepare students for the Advanced Placement examination in Spanish Language and Culture.

Seminar: The Hispanic World (0332) (SHSW)

Prerequisite: a minimum grade of B+ in AP Spanish Language or A- in Spanish IV Honors and departmental approval

Conducted entirely in Spanish, this full-year elective course is a topical study of different cultural elements and moments in history relating to the Hispanic World. Using film, articles, short literary works, and other audio-visual components, the class will take a discussion style format as students debate, inquire, and make connections to better understand the very diverse cultures of Spanish-speaking countries. The course is divided by trimester to allow for study of Spain, Latin America, and the Hispanic and Latino communities in the United States. Topics that are covered include flamenco, the bull fight, the drastic changes that have occurred in Spain since the end of Francisco Franco's dictatorial rule, the Spanish conquest of the Americas, Latin American revolutions and independence, US intervention in Latin America, magical-realism, gastronomy, art, and immigration. Assessment for this class is based on formal and informal expression, both written and spoken, and consists primarily of: class participation, oral presentations, essays, and quizzes.

AP Spanish Literature and Cultures (0331) (S5LT)

Prerequisite: B+ in AP Spanish Language with departmental approval

In this course, conducted exclusively in Spanish, students read and discuss a variety of Spanish and Latin American works of all genres that reflect different literary periods and movements. The works are presented chronologically and thematically, which facilitates comparison with other art forms such as painting, photography, dance, sculpture, architecture and film. Students will be evaluated based on their class participation that reflects the thorough reading of literary and cultural texts; frequent essays; short presentations and periodic auditory and written quizzes and exams. A primary objective of the course is to stimulate an appreciation of literature and other art forms that reflect the many facets of the Spanish-speaking world. This study will help students find connections to other fields and prompt reflection and comparisons as they increase their mastery of the language.

History

The Department aims to equip students to examine their own lives and the development, goals, and values of their society. Designed to convey a basic understanding of both Western and non-Western history from the pre-modern world to the present, the curriculum emphasizes economic and social forces as well as political and cultural factors. Throughout the curriculum, students are asked to grapple with the complexity of historical causality, to analyze and discuss primary and secondary sources, and to construct sophisticated historical arguments.

The History Department strongly recommends that before graduation students take at least one course with a focus on geographic regions outside the United States and Europe.

Requirements:

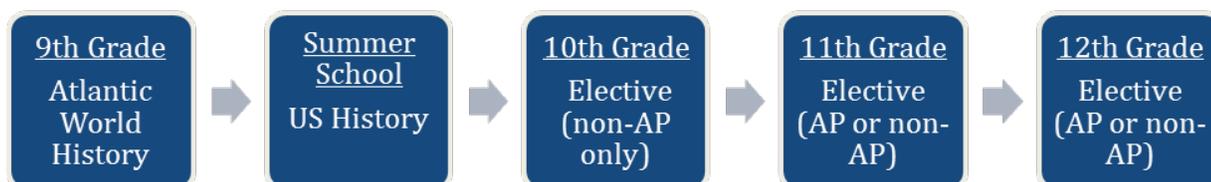
Grade 9: Atlantic World History
Grade 10: United States History
Grade 11 or 12: One non-AP elective (starting with Class of 2019)

History Department Sequencing

Typical Sequence



Summer School Sequence



Admission to AP History electives is based on the permission of the History Department and the specific criteria listed under each AP course. Students who applied to an AP elective and were not admitted for the current year are still eligible to apply for next year. But the Department will expect to see significant improvement in a non-AP history elective during the student's junior year.

Students in ninth and tenth grade may not be enrolled in AP History electives, which are open to juniors and seniors only.

Required Courses

Grade 9: Atlantic World History (0105) (AWH)

Atlantic history is the study of the world created by the interaction of peoples in Africa, Europe, and the Americas. This course will examine the migration (both voluntary and involuntary) of people and the exchange of goods, ideas, and practices across and around the Atlantic Ocean. Major themes include the transatlantic slave trade, the rise of colonial societies and Atlantic labor systems, the transformation of

Europe through exploration and expansion, the spread of revolutionary ideas, the rise and fall of imperialism in Africa, and the crises of a new global age. Students will be asked to investigate the Atlantic world from the various perspectives of those who experienced it and to analyze how historians have interpreted the Atlantic past in different ways. Over the course of the year, students will learn how to weigh evidence and balance these multiple perspectives to develop historical arguments and interpretations. These skills will be refined in three analytical papers, which must be submitted to earn a passing grade for each trimester.

Grade 10: United States History (0108) (USH)

This course surveys the United States' past from the colonial period through the modern era. The curriculum examines the physical, demographic and bureaucratic growth of the nation alongside the development of its political, social, economic and cultural institutions and traditions. Students consider the changing roles that gender, race and class have played throughout American history. Exams evaluate conceptual skills as well as analytical abilities and mastery of historical content. Students write three analytical papers, which must be submitted to earn a passing grade for each trimester.

Elective Courses

Classical World Civilizations (0146) (CCIV)

Prerequisite: Successful completion of history surveys for grades 9 and 10.

This course on Classical World Civilizations will focus on some of the greatest ancient civilizations of the world. Topics will include the following:

- 1) Fifth Century Greece
- 2) The Egyptian and Near Eastern Empires of the Hellenistic World
- 3) The Mauryan and Gupta Empires of India
- 4) The Roman Republic and the Empire through Nero
- 5) The Zhou, Qin, and Han dynasties of China

The course will, then, cover a number of important regions across the globe, and will highlight many of the unique features that account for the greatness of these civilizations. Indeed, within each major civilization we will explore the traditional aspects of historical study – the political, economic and diplomatic. However, there will also be an examination of social and cultural themes to give a more full and thorough examination of these civilizations. So while textbooks and other traditional historical readings will be used for this type of coverage, we'll use primary sources, art, and literature as well.

Topics in Political Philosophy (0147) (POPH)

Prerequisite: Successful completion of history surveys for grades 9 and 10.

In his *Republic*, Plato begins his discussion of the ideal state by asking a question: what is justice? In one way or another, every political system must deal with that question; at heart, political philosophy ponders the definitions of right and wrong. In other words, political philosophy is a branch of moral philosophy, one with a specific focus. Fundamentally, political philosophy is concerned with the relationship between the individual and society; more narrowly, it is concerned with the relationship between the individual and the state, and with the design of that state. This course will deal with the basic questions of political philosophy as they have been asked throughout Western history. What is the nature of justice? What are the rights of the individual, and on what are they founded? What are the responsibilities of the individual? Is there such a thing as natural law and natural morality? What are the responsibilities of the government? What is the legitimate source of political authority? How are goods distributed in a just society? When, if ever, should the common good take precedence over individual liberty? The course will follow the historical dialogue, from the time of Plato to the present day; the aim of the course is to teach students how to think philosophically about political issues. Students will read the work of thinkers such as Plato, Aristotle, More, Hobbes, Rousseau, Locke, Freud, Marx, Thoreau, and Wollstonecraft.

Global Conflict and Global Security: World War to Cold War to Now (0143) (GCON)

Prerequisite: Successful completion of history surveys for grades 9 and 10.

This course covers global conflict from 1919 to the present. It considers the global crises leading up to and resulting from World War II by analyzing the political, economic, social and military clashes between the key countries that dominated these events – Russia, Germany, Britain, France, the United States, China and Japan. The course begins with the creation of the Soviet Union and ends with the *current* international situation and threats to global security – threats posed by international terrorism (ISIS and Al-Qaeda), Iran, and North Korea. Breaking news in foreign and security affairs will be considered as it occurs. The course will concentrate on these topics:

The Rise and Fall of the Soviet Union and the Russian Aftermath: The nature, development and ultimate collapse of the Soviet Union, as well as Russia since 1991 and its drift back to authoritarianism and expansionism under Putin.

The Rise and Fall of Nazi Germany: The rise and appeal of Hitler; the nature and fate of the Nazi state, its geopolitical aims and plans for expansion, and the Holocaust.

World War II in Europe and Asia. The crisis of appeasement and the outbreak of World War II in Europe, the fall of France, the Battle of Britain, and the course of World War II in Europe. Japan's attempt to conquer China and control Asia, and World War II in the Pacific.

The Cold War. The origins of the Cold War, the division of Europe, and the role of NATO. The Korean War. The strategic military balance between the United States and Soviet Union. The end of Soviet domination of Eastern Europe, and the reunification of Germany.

The History of Nuclear Weapons. The development of nuclear weapons from the Manhattan Project to the present, how nuclear weapons work, the use of atomic weapons to end World War II, and the problem of nuclear proliferation. The accelerating Iranian and North Korean nuclear and missile programs and the threat they represent.

China. The rise of China as a major power and the implications of that on the balance of power in Asia.

In addition to studying some of the most compelling history of the last 95 years, the course aims to understand *why* things happened the way they did and not some other way – and to examine the circumstances and options that countries and leaders faced (or thought they faced), what was at stake and why leaders chose the options they did. Students will prepare political and strategic option analyses at the key turning points (“pivot points”) as well as essay analyses of those turning points. The course will also introduce some basic game theory and use it as one tool of analysis. Extensive class discussion and video material are important elements of the course.

Comparative Race and Ethnicity (0151) (CRAE)

Prerequisite: Successful completion of history surveys for grades 9 and 10.

This course examines race and ethnic relations in the United States and in other contemporary multiethnic/multiracial societies in the Americas (Brazil, Canada, the Caribbean), Asia, and Africa. It will also emphasize how to analyze current events with a deeper historical grounding.

Our approach to the topic begins with the examination of some basic concepts, such as ethnicity and race, racism and ethnocentrism, racial and ethnic stratification, prejudice and discrimination, and the theoretical models of race relations—i.e., assimilation and pluralism. From these introductory sessions, the course will move to specific group studies. We will examine the role of ethnicity and race in shaping collective and personal identities in the United States. We will then consider patterns of race and ethnic relations in other heterogeneous societies while adopting a comparative perspective—vis-à-vis the American (U.S.) case. Our

global approach will emphasize the prevalence of intergroup conflict in the modern world. A major component will also be examining current events as they relate to our study. If taught this year, for example, topics would have included the crises in Ferguson, MO; New York City, NY; Paris, France; and eastern Ukraine.

History of the Islamic World (0155) (HISW)

Prerequisite: Successful completion of history surveys for grades 9 and 10.

For nearly the entire life of a Horace Mann student, the United States has been at war in the Islamic world. And yet, outside of violent images of revolution and fundamentalists that we see in the media, many of us know very little about the people and culture of a region that we are so intertwined with. This course seeks to explore the history of the Middle East and Islamic World so that we may better understand the complexities of one of the world's most important civilizations.

The culture and religion of Islam have acted as a unifying force across large sections of Africa, Asia, and Europe, creating essentially a single world-system that included West Africa, the Middle East, and India, as well as parts of Europe and China. The shared religion of Islam, which often carried with it a shared priority on literacy and education, created the basis for a level of cultural exchange and technological development unprecedented in world history. This class will examine the Islamic world system in three distinct periods in its history: the rise of Islam and the development of Islamic Empires; the eighteenth and nineteenth centuries, when empires such as the Ottomans faced external political and intellectual challenges from a rising Europe as well as from internal reform movements; and finally the rise of nation-states after World War I. The spread of Islam brought new ideas in art and architecture, revived and expanded on Greek philosophy, and introduced an unprecedented level of religious tolerance to the medieval world. The latter two sections will also lead us to examine topics that students have been exposed to before—the Enlightenment, absolutism and constitutionalism, gender relations, colonialism, nationalism, and socialism—but we will study them in a new context. We will also explore new topics such as economics and world trade (the Suez Canal and oil), Cold War alliances, and Islamic politics and fundamentalism.

Decolonization and Postcolonialism in South Asia, Southeast Asia, and Africa, 1945–Present (0157) (DEPO)

Prerequisite: Successful completion of history surveys for grades 9 and 10.

This course covers revolution and its aftermath in South Asia, Southeast Asia, and Africa. This elective takes an in-depth look at national independence movements in these regions after World War II. In some cases the movements spawned thriving countries and in other cases they led to conflict and poverty. The course will seek to examine the cultural (e.g., ethnic, racial, and religious diversity), social (e.g., economic development), and political (e.g., the development of democracy) influences that led to each country's modern situation. Students will collectively engage theoretical approaches to imperialism and colonialism, the psychology of colonialism, and patterns of decolonization and development while broadening their global perspectives and challenging engrained stereotypes and preconceptions.

In each trimester we'll work with theories of imperialism and colonialism as we explore the modern historical development of each of our regions. This development follows a similar pattern in each region: the exploitation and oppression of the colonial era, the creation and growth of a national independence movement, the challenges, struggles, and achievements of postcolonial development. In the first trimester we'll be looking at colonization, independence, and development in the first two nations to gain independence after World War II: India and Pakistan. In trimester two we'll shift our focus to Southeast Asia as we investigate the pattern of development in Vietnam, Indonesia, Thailand, Cambodia, Malaysia, Burma, and the Philippines. And, finally, in trimester three we'll turn to Africa, taking on the independence and postcolonial development of nations such as Nigeria, Kenya, Ghana, Sudan, Rwanda, and South Africa.

Students will play a very active role in this seminar-style class. In each trimester there will be opportunities to develop research and presentation skills, in addition to honing skills in critical reading and analytical writing. We'll engage with primary and secondary sources, use images, video, and other multi-media resources, and keep an eye at all times on contemporary events unfolding in the postcolonial settings we're studying. We seek to examine the past for its own sake, but we also aim for a deeper and more expansive understanding of today's world.

History Through the Lens—Movies and American Culture (0159) (HTTL)

Prerequisite: Successful completion of history surveys for grades 9 and 10.

What would a historian in 2065 say about American society in 2014 based on the year's top-selling movies, all adapted from comic books or fantasy stories? How could movies from the 1950s about a corporate office worker, a New Jersey longshoreman, or a cowboy in the Old West, tell us about identity and conformity in that decade? This class asks and tries to answer those questions.

This class does **not** focus on the “art” of movies. Instead, it explores the evolving conversation that movies have with significant historical and cultural moments—from the Great Depression and World War II to the 1960s and the Age of Reagan.

Students will learn to understand movies: (1) as a reflection of the society in which they were made; (2) as interpreters of history; (3) as shapers of history; (4) as products of a particular business, the movie industry, and the relationships among these categories.

After close examination of films and reading in primary and secondary works, students will write regular movie responses, longer analytical papers, and do research on topics raised throughout the year.

Contemporary U.S. History, 1960 to the present (0160) (CONT)

Prerequisite: Successful completion of history surveys for grades 9 and 10.

At the start of a new century, the United States finds itself in the enviable position of a dominant political, economic, cultural, and military power. But the U.S. had to undergo some profound changes to get to this point. This course will examine the development of the U.S. from 1960 to the present and try to shed some lights on key issues of the recent past by focusing on four major areas: (1) law and politics, (2) popular culture, (3) foreign policy, (4) social and economic changes from post-industrialization. We will use a variety of texts including films, original documents, scholarly articles, and music. Specific topics include:

Fall Trimester – 1960's: liberalism under JFK, the Great Society, and the Warren Court; Containment and Vietnam; Television and Rock N' Roll and the cultural mainstream; Civil Rights and Black Power; the Counterculture and the end of Modernism; the New Left, 1968, and the rise of the Silent Majority.

Winter Trimester – 1970's and 1980's: Nixon and Watergate; Social Movements of the 70's – feminism, gay rights, fundamentalism, and the environment; New York City's budget crisis and the blackout; Postmodernism and Malaise; the Reagan Revolution.

Spring trimester - 1980's to the present: Culture and Society in 1980's; the end of the Cold War; the rise of Bill Clinton; the rise of technology and changes in popular culture; Prosperity and Division in the 1990's; the Clinton wars at home and abroad; 9/11; Bush and resurgent conservatism; prospects for the Obama presidency.

Voices of Protest: The Progressives to the Present (0161) (VOPP)

Prerequisite: Successful completion of history surveys for grades 9 and 10.

Throughout American history, protest movements have challenged Americans to live up to their professed ideals. Voices of Protest studies the last century through those protest movements, analyzing how citizens have attacked the status quo and formulated new alternatives. The class will consider the ways dissent is articulated and its complex influence on society - from the Suffragists through today's Tea Party. The

course is organized around six broad protest movements of the 20th century. We will analyze and engage with the history of various protest movements – as well as the responses to them – through a variety of sources, some rarely considered in history classes: portions of novels, short stories, even plays and poetry. Using different forms of literature to probe history incorporates an interdisciplinary approach to the class; however, more traditional primary and secondary sources (essays, articles, manifestos, speeches, and images) will be a key component of the assigned readings and discussions.

Students will write responses to readings, as well as complete research projects in areas of personal interest. We will move through the material thematically and chronologically, and address the following six units:

- (1) Capitalism's Discontents: from Industrialization to Occupy Wall Street
- (2) Civil Rights: from the New Negro to Black Power
- (3) War Protests: from World War I to Afghanistan
- (4) Women's Rights: from Suffragism to Modern Feminism
- (5) Gay Rights: from Stonewall to Marriage Equality
- (6) Environmentalism: from the Disappearing West to Ecoterrorism

Economics (0112) (ECON)

Prerequisite: Successful completion of history surveys for grades 9 and 10. After completing this course, students may not apply for AP Economics.

The course provides a basic introduction to modern economics, especially as it applies to people, the choices they make, what role they have in the American economy, and what role the U.S. economy plays in the world economy. The course has both an *American* and a *global* focus. Economics is the study of how people use limited resources to satisfy unlimited wants and is certainly not limited to markets and money. In the widest sense, all decisions are economic decisions because our resources, including time, are limited but our desires are not.

Central to the course are these questions: How is the American economy organized? How do markets for goods and services work? How do labor and resource markets work? How does international trade work? How is the world economy organized? What should governments—the U.S. government and foreign governments—do to achieve low unemployment, stable prices and economic growth? How do banks and the U.S. and global financial markets work? How do securities markets work? How does the Federal Reserve System regulate the money supply, interest rates, and the economy? How are companies and industries organized? Why are some industries dominated by a few large companies? How much should government regulate business to prevent monopoly and ensure competition with antitrust laws? What can be done about environmental pollution and the overuse of resources? What can be done about increasing income inequality and poverty? How can the American economy remain competitive in an era of globalization? How is the U.S. labor market changing?

The course will also cover the fundamentals of *securities investment and financial planning*, including the common investment vehicles used by investors—such as stocks, bonds and mutual funds—as well as more exotic items such as options and futures. Students will learn how to put together a portfolio of securities and work together to follow its performance.

Throughout the course, students will study the current condition of the American and global economy by following current economic news and developments in companies, markets, and new products. *The Wall Street Journal*, *Investor's Business Daily*, *Business Week*, and other publications will be used.

This is a “hands-on,” “real-world” course designed to develop basic understanding of economics and finance. There is an economic way of thinking, and students will learn how to apply that to actual problems and situations. Economics is something you *do*, rather than simply a body of material to study.

Religion in History (0144) (RELG) [Course not offered 2015-2016]

Prerequisite: Successful completion of history surveys for grades 9 and 10.

This course will examine major topics in the history of religion and will examine a variety of religious traditions: Judaism, Christianity, Islam, Hinduism, Buddhism, Taoism, Shinto and Native American belief systems.

History Research Seminar (0149) (HSEM) [Course not offered 2015-2016]

Prerequisite: Successful completion of history surveys for grades 9 and 10.

What is the difference between popular history and scholarly history? Between the History Channel and a PBS documentary? Does it matter? That's part of what this seminar will explore—defining a culture of truth, determining its function in America today, and asking why we should care. The primary objective of History Research Seminar is for students to learn how to practice the craft of history. By engaging in a thoughtful and thorough research process, students will write several research papers on topics of their choice, especially those topics not currently covered in the standard curriculum. Examples of recent topics have included ancient Egypt, the First Crusade, Buddhist influence in the Han Dynasty, the destruction of Pompeii, the fall of the Roman Empire, third party movements in the United States, intelligence operations in Spain during World War II, the gulag in the Soviet Union, the political history of contemporary Iran, and political humor from Mark Twain to Mort Sahl. Students will be expected to present their research results in both oral presentations and written papers. They should also be prepared to respond to comments and suggestions when revising and rewriting early drafts. By the end of the year, students will have completed a number of independent research projects, demonstrating their command of the subject matter that interests them most and participating in the hands-on experience of historical discovery.

United States Legal History (0152) (USLH) [Course not offered 2015-2016]

Prerequisite: Successful completion of history surveys for grades 9 and 10.

As times change, so does our sense of right and wrong, justice and morality. These struggles are also reflected in the changing nature of the law. In fact, in 1891 one of the greatest legal minds in history, Oliver Wendell Holmes, said that the law was like a “magic mirror” in which all of the values, conflicts, hopes, and fears of society are reflected.

We can see this today with issues involving privacy and technological surveillance. The struggle for the law to understand our current digital age is no different than past struggles when the law tried to cope with abortion, privacy, civil rights, freedom of speech, the war on drugs, the regulation of the economy, freedom of religion, slavery, and federalism.

In this class we will explore the topics listed above, but we will do so by taking a broad view of the law. We will look at constitutional issues and also examine criminal law, contracts, property, and even the law of torts. And we will, of course, examine court cases, laws, and academic studies. But we will also look at the social and cultural factors and thus use, art, films, literature, and original documents to get a full view of the law and its place in our society.

East Asian History (0154) (EASN) [Course not offered 2015-2016]

Prerequisite: Successful completion of history surveys for grades 9 and 10.

The rise of Asia's geopolitical power in the last few decades will very likely be the most important structural change of the twenty-first century. What preceded and caused this global shift is the subject of this course. Though we will not cover every dynasty, we will investigate the history of three regions—China, Korea, and Japan—during the classical world, late imperial period, and especially the twentieth century. To understand East Asia's recent rise, we need to know where it started from and why this development was neither inevitable nor unprecedented; after all, East Asia has been a geopolitical center before.

Topics to be discussed include: the early history of globalization along the ancient Silk Road; the notion of “dynasty” as both a useful and distorting category of analysis; the myths surrounding the building of the Great Wall; the pre-modern and modern manifestations of samurai culture; Korea’s robust history of diplomacy and print culture; civil service exams and their role in social advancement; gender’s role in creating unique East Asian cultures; comparisons between the Sino-Japanese-Korean War and World War II; the events of World War II and its wrenching results; the ideological clashes of nationalism and communism; the nuclear and human rights challenges posed by North Korea; the democratic transition in South Korea; the corporate culture and textbook controversy in Japan; the Great Leap Forward and Cultural Revolution in China; the remarkable success of economic reconstruction; and how the U. S. might respond to the rapidly changing dynamics of East Asia.

Advance Placement World History (0106) (APWL)

Prerequisite: (a) Successful completion of history surveys for grades 9 and 10 (b) Permission of the Department, based on the following criteria: History grades that average A– or higher for all years and class citizenship. Students with History averages higher than B+, but not A–, will be considered on an individual basis. For rising seniors who apply, more weight will be given to grade averages in years 10 and 11. Class meets every day. Open to juniors and seniors only.

AP World History attempts to cover the entire scope of human history, from the beginnings of the first human civilizations (in approximately 8000 BCE) to the present day. In doing so, our goal is to gain an understanding of the large-scale trends and patterns in human societies, cultures, migrations, technologies, and religions. Our focus is not so much on the specific details of any individual society or culture, although students will learn about the social and political structures of cultures ranging from the ancient Persians to the Mongols to modern China. More importantly, students will learn to see the history of interactions and interrelationships among the peoples of the world in different periods of history. Students should expect to do a significant amount of reading and writing, as well as participating actively in class discussions.

Advanced Placement Modern European History (0107) (APEU)

Prerequisite: (a) Successful completion of history surveys for grades 9 and 10 (b) Permission of the Department, based on the following criteria: History grades that average A– or higher for all years and class citizenship. Students with History averages higher than B+, but not A–, will be considered on an individual basis. For rising seniors who apply, more weight will be given to grade averages in years 10 and 11. Class meets every day. Open to juniors and seniors only.

AP European history covers the social, political, economic, and cultural development of Europe from 1450 to the present. Students should be prepared to engage in lively debates and discussions that consider not only the events of the past, but also the different ways in which historians have understood those events. Historiographical trends (*Annales*, gender, culture) will thus comprise a significant aspect of the course. Students will also be asked to pursue independent research projects and can expect guidance from the instructor as well as a generous amount of room for exploration. Because of the emphasis on writing, students should be ready to devote significant time to the crafting and refining of arguments in essays and papers. The classes are conducted in a seminar-style format, so active class participation is both encouraged and expected.

Advanced Placement United States History (0110) (APUS)

Prerequisite: (a) Successful completion of history surveys for grades 9 and 10 (b) Permission of the Department, based on the following criteria: History grades that average A– or higher for all years and class citizenship. Students with History averages higher than B+, but not A–, will be considered on an individual basis. For rising seniors who apply, more weight will be given to grade averages in years 10 and 11. Class meets every day. Open to juniors and seniors only.

This course is designed to provide students with the analytical skills and factual knowledge to deal critically with problems and materials in American history. Students deal with primary sources, are introduced to American historiography, and read numerous scholarly articles and monographs. Emphasis is given to writing historical essays, and students are expected to submit short essays and reports. Students

may also have the opportunity to produce a major research paper based on their individual interest in any area of American history. Major themes include the following: the paradoxical growth of freedom and slavery in the American colonies; interaction with Native Americans; republicanism; liberalism and the significance of ideology; expansionism; religion; economic development; sectionalism and patterns of segregation; race, class and gender; reform; political party development; significant issues in diplomacy; the impact of war on American society; contemporary issues in American society; and the growth and development of a democratic culture.

Advanced Placement Economics (0114) (APEC)

Prerequisite: (a) Successful completion of history surveys for grades 9 and 10 (b) Permission of the Department, based on grade averages in History, Science and Math for all years; and class citizenship. For rising seniors who apply, more weight will be given to grade averages in years 10 and 11. Class meets every day. Open to juniors and seniors only. Economics (0112) is not required as a prerequisite. Students who have already completed Economics (0112) may not apply for AP Economics.

This is a college-level course in modern economics. The course is devoted to the analysis of economic situations and economic problems. Major topics include the nature of markets, the structure of the American economy, product, labor and resource markets, the organization of American industry, government regulation of business and antitrust laws, taxation, the monetary system, inflation, business cycles, and government policies to achieve full employment and encourage economic growth. Much attention will also be given to the global economy and international economics, international finance and trade, to the role of the United States in the world economy, and to issues of American productivity and competitiveness.

The course has a strong public policy orientation, and current economic problems— including the problems of poverty, increasing income inequality, environmental pollution, and resource use (and overuse)—will be explored. World economic development and issues of globalization will also be discussed. Since most contemporary problems have economic roots, the course will provide students with the economic understanding to address these problems. Some attention will be paid to the recent recession and financial crisis, how these came about, what is being done by the Federal Reserve and the Treasury to address them, and the slow recovery from the recession, and how recent changes in the U.S. labor market have complicated matters.

Contrary to what many people believe, economics is not essentially about money or wealth or even markets. Rather, it is about the use of limited resources to satisfy unlimited wants. Economic thinking requires *choices*. That means that the tools of “economic” thinking can be applied to many situations in everyday life and to how people make decisions. (Should I do this or that? How much time should I spend on this or that? How can I make both you *and* me better off?) This wider view of economics, which applies “economic” principles to wider human behavior and social cooperation, will also be a focus of the course, and game theory will be one of the tools used.

This is an economic training course, a course that stresses economic reasoning and application. Economics is not simply a subject to study. It is something you *do*.

Independent Study Opportunities

Independent Interdisciplinary Research Seminar (0902) (INST)

Prerequisite: Approval of IIRS director

Successful IIRS participants earn one full-credit

The Independent Interdisciplinary Research Seminar allows motivated, responsible students to study topics not included in the Horace Mann curriculum or to continue research on a topic covered in a previous course. Each student in the IIRS designs a research project and pursues it through independent study guided by a faculty mentor. Students meet with their mentors at least once per week and with the seminar director once every other week. IIRS members also convene twice per week for an interdisciplinary seminar.

All participants keep journals in which they record their research. Each trimester they must produce evidence of their work, usually a research paper, a literary or artistic work, a scientific experiment, or a performance. The project's content determines the form of the final result. Project grades are commensurate with the Horace Mann grading policy and comprise two-thirds of the trimester grade.

During seminar sessions students teach each other about the knowledge acquired through their independent work. They also discuss a limited number of common readings. The grade for the seminar constitutes one-third of the trimester grade.

Senior Initiative Project

Graded Pass/Fail

Offered in the 3rd trimester for seniors only

A Senior Initiative Project is an independently pursued and rigorous exploration of a specific area of interest. The project may build upon the student's previous studies, but it should not merely duplicate them. Seniors wishing to pursue a Senior Initiative Project must fill out an application in the middle of the second trimester. Applications will be evaluated by the Senior Initiative Project (SIP) committee, which will determine which students will be allowed to participate in the program.

The Senior Initiative Project must have a permanent component appropriate to the project's discipline. While a written document may be a part of the final project, SIPs can not be a lengthy research paper. One or more days will be set aside at the end of the academic year for students to present their final projects to the HM community. The final assessment will be determined by the nature of the project and is subject to approval by the SIP committee.

Seniors currently enrolled in five full-credit courses may drop one course in the third trimester to work on a Senior Initiative Project. There are some exceptions: English, AP classes, Independent Study, and courses required for graduation cannot be dropped. Some courses may require the student to take a final at the end of the second trimester. Students must have earned a grade average of a B- in the first two trimesters of the course to be dropped. Students planning to drop a course will need to speak with their college counselor for advice on how this relates to the college admissions process. They will also need to seek approval from their grade dean.

Interdisciplinary Studies

Identity, Gender and Sexuality (0908) (PHLI)

Prerequisite: Students must be in 11th or 12th grade

Half credit

This course aims to provide an introduction to the field of gender and sexuality studies. Central themes of the course will come from modern philosophers. We will use these ideas to inform our understanding of selected literature, film, art, current events, music and pop culture. We will also draw from the expertise of faculty members to explore questions like: How is gender and sexuality expressed and interpreted in different cultures? What role does biology play in examining gender and sexuality? How do race and gender or sexuality intersect? How does language influence identity, or the reverse? Is there a history of sexuality? If so, what is it? Students will leave the course with a framework for understanding how gender and sexuality shape identity.

Library

The Library Department believes that research skills must be learned within a meaningful context. Consequently, this department does not offer an independent library skills course. Instead, the research process is introduced through library instruction classes coordinated with departmental courses. Because resources and strategies used vary by discipline and subject matter within disciplines, library classes are tailored to specific assignments. Print, non-print, and electronic resources are presented, as well as techniques for gathering, evaluating, and crediting information sources.

Mathematics

The Mathematics Department believes that problem-solving skills--analysis of a problem, plan for solution, completion, review and extension of solution--are essential to critical, logical thinking in all disciplines. Our program, therefore, presents students with opportunities to develop these skills along with basic mathematical concepts. Using various approaches, including the use of graphing calculators and our mobile lab laptop computers, the Department strives to develop students' curiosity, initiative, confidence, responsibility, enjoyment, and satisfaction in dealing with mathematics. While the required sequence ends with *Algebra II and Trigonometry*, nearly all students continue the traditional sequence through Precalculus and Calculus.

Requirements:

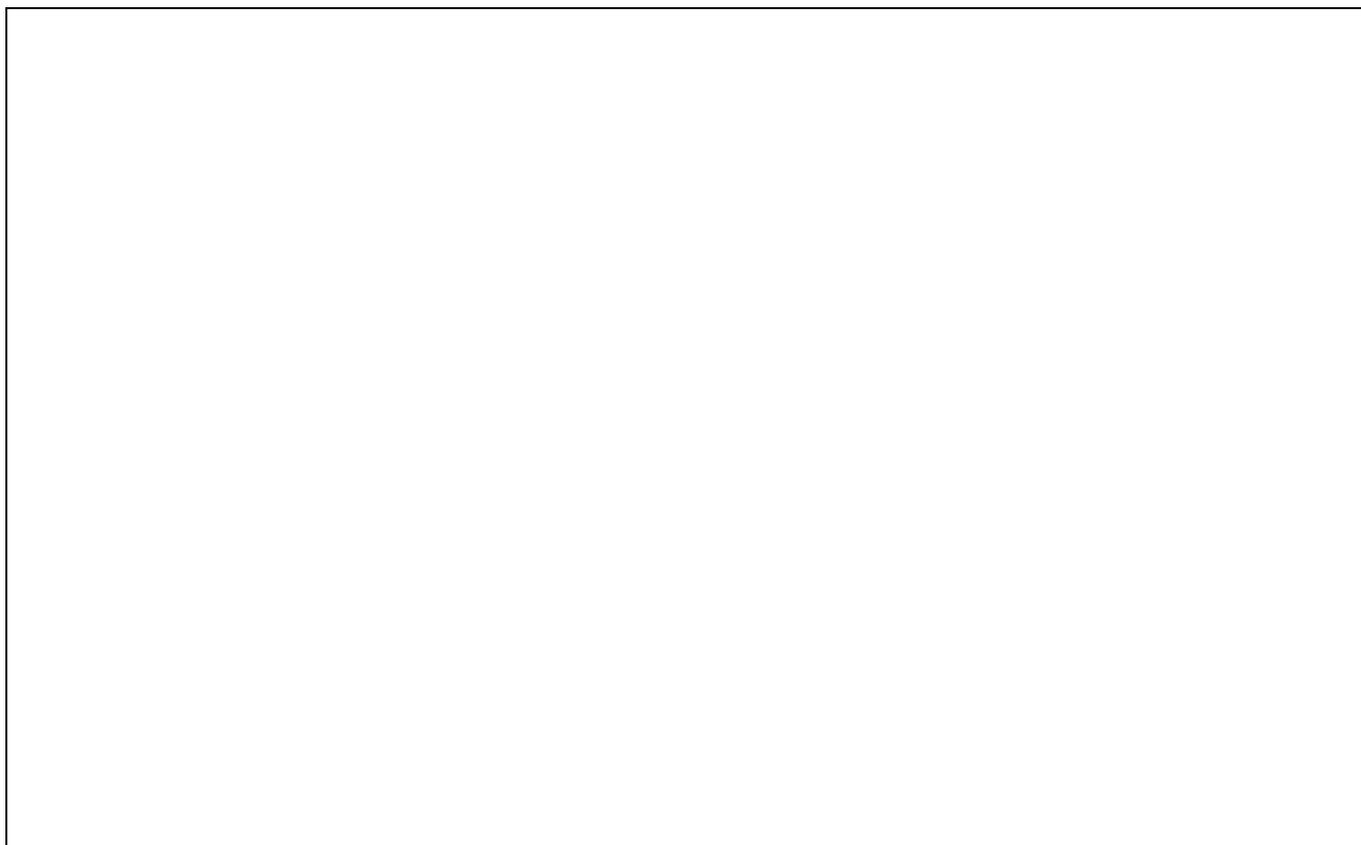
Algebra I

Geometry

Algebra II and Trigonometry

Many of the elective courses and honors courses have special prerequisites. For specific details, please refer carefully to the italicized information that follows each course name in the listings that follow.

A diagram indicating the pathway between mathematics courses is provided below:



Required Courses

Algebra I and Problem Solving (0411) (ALG1)

Meets five times per week

Parents of students enrolled in Algebra I should carefully consider the options for summer math courses described in the Summer School FAQ at the end of the Program of Studies.

This is an Upper Division course designed for those students who have yet to master a full, rigorous Algebra I program. Horace Mann students who took Math 8B in the eighth grade must take this course, and many ninth grade students new to Horace Mann are also appropriate candidates. The core topics are designed to help students gain the algebraic foothold they will need to be successful in the upper level courses. Special emphasis is placed on helping students develop problem-solving techniques they will be able to use in future courses.

Geometry (0420) (GEOM)

Prerequisite: Algebra I

The course is designed to convey an appreciation of geometry as a deductive system. Starting with undefined terms, postulates, and definitions, the students follow the progressive development of theorems and their proofs to create a mathematical structure with rich aesthetic and practical value. In building this axiomatic structure, they improve their ability to recognize and organize the various relationships among points, lines, triangles, polygons, and circles in the plane. Throughout the year, students will engage in a series of guided explorations using the dynamic software program, *Geometer's Sketchpad*.

Geometry Honors (0421) (GEOH)

Prerequisites: Algebra I and approval of the department chair

In addition to the major topics of Geometry, the Honors sections study the advanced geometry of the triangle. After using the dynamic geometry software *Geometer's Sketchpad* to conjecture relationships in triangles, students prove theorems associated with the orthocenter, incenter, circumcenter and centroid. Throughout the course great emphasis is placed on proof and the skills associated with effective communication of complex ideas. The year culminates in a final project in which pairs of students present the proof of a "great" theorem during a full class period.

Algebra II & Trigonometry (0430) (ALG2)

Prerequisites: Algebra I and Geometry

The thematic thread that ties this course together is the mathematical concept of a function. Students learn to interpret functions algebraically and graphically, as well as how to connect the two. Functions of particular interest are the sine, cosine, exponential, logarithmic, linear, quadratic, and absolute value. There is a substantial treatment of trigonometry and complex numbers. The course is presented in a spirit of investigation, facilitated by the use of the graphing calculator. Skill-building is emphasized as students learn to attack problems with a toolbox of acquired algorithms. Of equal importance, students encounter open-ended problem-solving in which they learn how to devise their own strategies for tackling non-routine problems.

Algebra II & Trigonometry Honors (0431) (AL2H)

Prerequisites: Algebra I, outstanding performance in Geometry and on the Geometry final exam, a demonstrated passion for mathematics, and approval of the department chair. In addition, in the spring, students who have been identified by their teachers as potential candidates for the jump from regular Geometry (0420) to Algebra II & Trig Honors (0431) will be asked to sit for a non-routine problem-solving exam to help gauge their readiness for a course of this level.

This Honors course covers the topics in Algebra II & Trigonometry in greater depth, and will also cover additional topics such as group and field theory, matrices, analytic geometry, and sizes of infinity. This is a demanding course, requiring a high level of abstraction and mathematical maturity. Students will be expected to stretch themselves intellectually and to grapple with exciting, difficult material throughout the year.

Elective Courses (Grades 11 and 12)

Precalculus Options

To accommodate the interests and abilities of individual students, the Department offers three levels of Precalculus to those who have earned at least a C- in *Algebra II & Trigonometry (0430)*. Students who wish to continue their study of traditional mathematics should elect a Precalculus course to be taken in the year after *Algebra II & Trigonometry*. These courses may lead to a math elective in the senior year.

Precalculus (0440) (PREC)

Prerequisite: Algebra II and Trigonometry (0430)

One of the major goals of this course is to improve the problem-solving skills of our students. The course begins with a review of trigonometric functions, their graphs, and their inverses. This is followed by a comprehensive study of the Law of Sines and the Law of Cosines that culminates in an in-depth unit on TI-84 programming. The year continues with units covering the conic sections, combinatorics, and probability. The year concludes with a study of exponential growth and decay with specific applications to finance and medicine.

Precalculus AB (0441) (PRAB)

Prerequisite: A minimum grade of B+ or better in Algebra II and Trigonometry (0430) and approval of the department chair.

This course lays the foundation for a college-level course of Advanced Placement Calculus AB. The central theme is a combination of theoretical study and practical applications of the elementary functions, including trigonometric, polynomial, exponential, logarithmic, and sequential functions. In addition, the course includes an extended unit on combinatorics and probability.

Precalculus BC Honors (0442) (PRBC)

Prerequisites: Algebra II and Trigonometry Honors (0431) and approval of the department chair. In certain exceptional circumstances, students who demonstrate brilliance in Algebra II (0430) throughout the year and on the final exam will be invited to take this course.

This course involves a highly theoretical, rigorous approach to the mathematics of Precalculus. Topics include vector analysis, modeling with parametric equations, combinatorics and probability, sequences and series, recursion, polar coordinates, and an introduction to differential calculus. Graphing calculators are used for exploration. Each student is expected to do a project (the equivalent of a term paper) in the third trimester.

Contemporary Calculus (0450) (COCA)

Prerequisite: A minimum grade of C in any Precalculus course.

This calculus course is paced to allow both depth and exploration. The graphing calculator is used as a tool to examine the topics included in a traditional introductory calculus course: functions and their graphs; limits; the derivative and its applications; definite and indefinite integrals; and logarithmic, exponential, and trigonometric functions. In addition, students study topics not usually accessible in traditional calculus courses. Through calculator exercises students take advantage of numerical methods to analyze problems, discover underlying concepts, and gain insight into the relationship between the geometric and algebraic representation of the central ideas.

Advanced Placement Calculus AB (0451) (APAB)

Prerequisites: A minimum grade of B+ in Precalculus AB (0441) and approval of the department chair.

If a student in Precalculus AB averages a B+ after the first three trimesters and has a final exam that lowers the year-end grade to a B, that student may sit for a placement exam on JUNE 11, 2015 to determine whether they may gain admittance to this course.

In certain exceptional circumstances, students who demonstrate brilliance in Precalculus (0440) throughout the year and on the final exam will be eligible to take this course.

Meets every day

A rigorous introduction to Calculus, this course covers the concepts of differentiation and integration, with applications to rates of change, optimization, area, and volume. One semester of college calculus credit may be earned from this course. This course culminates in the AP Calculus AB exam in the spring.

Advanced Placement Calculus BC Honors (0452) (APBC)

Prerequisites: Precalculus BC Honors (0442) and approval of the department chair

Meets every day

The culmination of the honors sequence in mathematics, this course is taken in preparation for the Calculus BC examination of the College Board. All of the work covered in Calculus AB is included as well as additional topics in special methods of integration, infinite series, polar coordinates, arc lengths, and vectors and parametric equations. Two semesters of college calculus credit may be earned from this course.

Introduction to Statistics and Probability (0460) (STAT)

Prerequisite: Algebra II and Trigonometry (0430)

We are bombarded daily with numerical information in news, in advertisements, and even in conversation. This course will begin with a unit on combinatorics (counting principles) and probability that will help to build a foundation for exploring and applying methods in statistical analysis. Students will learn how to collect data effectively, how to analyze data numerically and graphically, and how to use their analyses to decide whether claims based on numerical information are reasonable.

Advanced Placement Statistics (0462) (APST)

Prerequisite: A minimum grade of B+ in Precalculus (0440); or a minimum grade of B in Precalculus AB (0441) or a minimum grade of B- in Precalculus BC Honors (0442). Approval of the department chair is also required. Meets every day

This course is an introductory statistics course similar to those required for college majors in the social sciences, health sciences, and business. In preparation for the Advanced Placement Statistics examination of the College Board, this course introduces the major concepts and tools for collecting, analyzing, and drawing conclusions from data. One semester of college statistics credit may be earned from this course.

Senior Math Electives (0466) (SEMC)

Prerequisite: satisfactory completion of any level of Precalculus and approval of the department chair.

Senior Math Electives is a full-year, full-credit course designed to give students the opportunity to study engaging mathematical fields that are outside of the traditional high school syllabus. Project-based “learning by doing” will be an integral part of the experience. Students will be evaluated through their work on problem sets and projects. The course is divided into three distinct trimesters, usually taught by three different teachers. Topics may change year-to-year, but past offerings were:

The Analysis of Games: In this trimester course, we will examine what mathematicians call *combinatorial game theory*. This field studies games like Tic-Tac-Toe, Checkers, or Dots and Boxes, in which there is no random chance and no hidden information. We will play a *lot* of games, think about them, talk about them, and write about them, with an eye towards developing “best” and “worst” strategies from the ground up.

An Introduction to Fractals: Benoit Mandelbrot first organized the study of fractal geometry, partly because of the interesting and plentiful occurrences of objects with beguiling characteristics in the natural world (like the coastline of Scotland) and within mathematics (such as a line finitely contained in space that is infinitely long, though without any area). In this trimester, we will investigate the mathematical properties and constructions of these objects by considering the history of their development (as well as the conundrums and pop culture interest they produced), the mathematics used to describe and define them, and, finally, the computer programming that allows us to construct them.

An Introduction to Programming: In this trimester, we will investigate computer programming in a number of languages. Students will begin by exploring LaTeX so they get used to the idea of syntax. From there they will explore a variety of languages, including TI-Basic, Processing, Scratch, and Python. Students will work on *Project Euler* problems to help discover how choosing the language best suited for a task is an essential part of the problem-solving process. The trimester will culminate in groups of students working collaboratively to create a project that stretches their new abilities.

Math Seminar (0470) (MSEM)

Prerequisites: A demonstrated passion for mathematics, a minimum grade of A- in Precalculus BC Honors (0442) and approval of the department chair. Students may be allowed to take Math Seminar and Advanced Placement Calculus concurrently.

This is a full-credit course designed for students with a serious interest in pursuing higher mathematics. The course is problem-set based to give students the experience of working through complex material in an independent setting. The special topics offered vary from year to year and have, to date, included number theory, inversive geometry, linear algebra, multivariable calculus, finite calculus, continued fractions, game theory, and advanced problem-solving.

Physical Education & Health

The Physical Education Program is designed to instruct students in sports and fitness activities, while ensuring all students are prepared in professional lifesaving skills through our CPR/AED for the Professional Rescuers & Health Care Providers and First Aid class. While serving the diverse needs of our students, the purposes of basic instruction are to develop a commitment to lifelong physical activity, to guide students toward fitness and health, and to provide an environment in which students enjoy participating in physical activity.

Requirements:

Physical Education each term, grades nine through twelve, unless replaced by team membership or an approved Independent Out of School/Athletic contract. Certification in CPR/AED for the Professional Rescuers & Health Care Providers. Health Education in grade ten.

The physical education program recognizes the wide range of abilities and interests of its students and seeks to offer choice and flexibility in its offerings while maintaining optimal standards and requirements. Students will choose *Concepts of Physical Fitness/Team and Life Sport*, *Dance Workshop PE*, or *Varsity PE* when planning their schedules for the coming year. Registration for particular activities within the unit selected will be conducted each trimester within the Department of Physical Education. Registration will take place on the first day of scheduled classes each term. Registration in the department is for these purposes: (1) for credit to be conferred for team participation; (2) for approval of an Independent Out of School/Athletic contract; and/or, (3) selection for CPR/AED for the Professional Rescuers & Health Care Providers and First Aid.

Concepts of Physical Fitness/Team and Life Sport (0955) (PE)

Students will participate in a program that provides the most up-to-date information on strength-development/conditioning regimens and activities that develop personal living skills, integrate physical skills, and lead toward the objective of selecting appealing physical activities available outside of class.

In the *weight-training* component, students will be taught the proper use of equipment as well as the effects of its use on the body. The Fitlinxx system adds technology to the physical education department as well as aiding the teachers in teaching the students proper technique and use of our Cybex machines. The *cardiovascular fitness* component will begin with the identification of each student's target heart rate zone and allow students to achieve it through various endurance and muscle-toning workouts. Students will be "tested out" periodically in order to assess progress, general knowledge of the human anatomy and the equipment used to work specific muscle groups.

In the *team and life sport* component, students will participate in both individual and team sport activities. Students will learn the rules of play of each sport or activity and the fundamental skills necessary for the enjoyment of each. Seasonal offerings include: field hockey, soccer, floor hockey, tennis, golf, horseshoe, bocce, jogging, flag football, volleyball, basketball, softball, speedball, team handball, ultimate frisbee, and childhood playground games.

Dance Workshop (0957) (D1PE) for PE credit or (0883) (DNW) for Arts Credit

Grades 9-12

May be taken for Physical Education credit OR Performing Arts credit -- meets 5 days out of the 10-day cycle for the entire year. Participation in after-school sports does not exempt students from Dance Workshop.

There are multiple sections of Dance Workshop. Students are placed not by grade level but according to skill level as assessed by the dance teachers. Placement is also dependent on fitting the section assignment into one's schedule. Although a student may move from a primary to an intermediate level of dance, it will not be indicated by a separate course number. The transcript will simply show continuing participation in Dance Workshop.

Dance Workshop emphasizes the development of a strong technical base in Ballet, Pilates, Yoga, Modern Dance, Jazz, Tap, Hip-Hop and an awareness of other world dance influences. Training includes warm-up, improvisation, alignment, stretching exercises, and traveling combinations. Rhythmic awareness and the relationship of music to dance is stressed throughout.

Health Education --Grade 10

The Health Education curriculum provides an interactive forum with students, teachers, and Upper Division Peer Leaders to understand health issues. As students acquire knowledge and obtain skills, they gain the self-confidence and sense of responsibility necessary for making decisions that affect their quality of life. The curriculum builds on basic life-skills training in self-image development and independent thinking, stress management, and effective communication. It includes research, role-playing, guest lectures, written and oral reports, movies, and interactive group discussions. The skills students learn form a basis for exploration in areas such as human growth and development, emotional health, alcohol, tobacco and substance abuse, nutrition, and preventive medicine.

Varsity PE (0956) (VPE)

Departmental Approval required

Grades 10-12

Students who participate in after-school sports, for a minimum of 2 seasons, may request to take Physical Education during the last period of the day in order to avoid early dismissal conflicts. Varsity PE is not guaranteed however, due to constraints of scheduling. **Students not in-season will be expected to participate in a regularly scheduled physical education class.**

Certification in CPR/AED for the Professional Rescuers & Health Care Providers

Graduation Requirement

Students will learn how to provide first aid in emergencies. This certification course integrates the lifesaving skills of rescue breathing, first aid for choking, CPR with AED and water safety skills. If a scheduling conflict occurs, American Red Cross classes are offered outside of school. Please contact the Physical Education department if a conflict should arise.

Out-of-School/Independent Athletic Contracts

Departmental Approval required

Grades 10-12

Students may be permitted to use out-of school activities for physical education credit. Students will be limited to activities not offered by the school at any time or meet minimum athletic team standards equal to those offered at school. A contract will be allowed only one trimester per school year. An athletic contract request for a sport in season is not permitted.

- ❖ Contract forms must be submitted on or before the first day of class each trimester. Athletic contracts can be found on the physical education Haiku page. (Not the athletic website). **Late submissions will not be accepted!**

Science

The science curriculum is chiefly concerned with the experimental and theoretical processes by which scientists explore the natural world and with the application of these results to contemporary problems. The laboratory orientation of our classes encourages students to relate theory to experiment. Teachers work to foster creative and independent research. Most students take introductory courses in Biology, Chemistry, and Physics. Non-AP advanced courses may be taken after completing Biology and Chemistry, and AP courses may be taken by qualified students who have completed Biology, Chemistry, and Physics.

In laboratory courses, one of the class meetings each week is a double laboratory period.

Requirements:

Biology

Chemistry or Physics

Introductory Courses

Biology (0520) (BIO)

Usually taken in Grade 9.

Laboratory Course

The course provides a survey of the major areas of inquiry in biology including molecular biology, genetics, physiology, behavior, evolution, and ecology. Students design and test hypotheses, collect and analyze data, and draw conclusions during double laboratory periods every week to support their understanding of biological phenomena. Students also explore current research including cutting edge discoveries through reading, debate, and discussion.

Chemistry (0530) (CHEM)

Usually taken in Grade 10.

Laboratory Course

Chemistry concerns the composition and properties of matter. The topics discussed in the classroom are explored through demonstrations and reinforced through weekly laboratories. Topics include atomic and electronic structure, bonding, reactions, stoichiometry, gas laws, states of matter, solutions, reaction kinetics, thermodynamics, equilibrium, acids and bases, electrochemistry, organic chemistry, and nuclear chemistry.

Physics (0540) (PHYS)

Prerequisites: Biology (Chemistry recommended). Students who have not completed Algebra II and Trigonometry will require special permission from the department - please consult with your advisor, your current science teacher and/or the Department Chair about whether this is a suitable program choice. Students who elect to enroll in Physics before or in place of Chemistry must have completed Algebra II and Trigonometry. Usually taken in grade eleven.

Laboratory Course

Physics is an algebra-based course with a focus on mastering fundamental principles and developing scientific reasoning and problem-solving skills. Students learn to apply their conceptual understanding and mathematical skills in solving a broad range of problems. The course includes a weekly laboratory to reinforce the concepts learned in class and to provide an opportunity for students to experience the process of scientific inquiry first hand. Topics covered include Newtonian mechanics, thermodynamics, electricity and magnetism, waves, optics, and atomic and nuclear physics.

Physics Honors (0541) (PHYH)

Admission requires permission of the department. Generally, students need to have earned an A- or better in all science and mathematics courses to be considered. Interested students are encouraged to talk with their current science teacher and/or the Department Chair prior to requesting Physics Honors. Given the significant demands of Physics Honors, the department does not routinely give permission for concurrent enrollment in Physics Honors and an AP Science; students who are interested in doing so must discuss this with their current science teacher and the Department Chair before submitting their Course Request Sheet. Physics Honors may not be taken by students who have completed Physics (0540).

Laboratory Course

Physics Honors is an introductory non-calculus college physics course covering Newtonian mechanics, simple harmonic motion, fluids, thermodynamics, electricity and magnetism, waves, optics, and atomic and nuclear physics. Extensive use is made of algebra, trigonometry, and graphical methods. The laboratory section is similar to that of Physics, but places a greater emphasis on independent projects and the writing of scientific papers. At the conclusion of this course, students take the AP Physics 1 and AP Physics 2 examinations. This course is for students who are prepared for and interested in exploring physics more deeply than in Physics (0540).

Topical and advanced electives

Biotechnology (0522) (BOTC)

Prerequisites: Biology and Chemistry

Laboratory Course

Students will explore the historical, technical, and social developments associated with various advances in biotechnology. Areas of study will include fermentation, antibiotic production and resistance, DNA sequencing and fingerprinting, DNA amplification by polymerase chain reaction, the Human Genome Project, genetic testing, genetically modified organisms, gene therapy, and immunology. The class will have a lecture/discussion/laboratory format, with the goal of imparting literacy in the technologies, controversies, and challenges emerging from such capabilities.

Advanced Topics in Biology (0523) (TPBO)

Prerequisites: Biology and Chemistry

Laboratory Course

This is a second course in biology for students who wish to explore some topics in biology in greater detail and with greater freedom than a traditional textbook-oriented course. The course will focus on various topics of interest in biology. A majority of class time will be spent in discussion and laboratory experiments, rather than lecture. Students will design and conduct experiments and lead discussions on scientific articles. The course will incorporate aspects of other areas of study, such as engineering, ecology, physiology, physics, chemistry and history. Specific topics vary from year to year. Examples of past topics include: the biology of food; urban ecology and biodiversity; exercise physiology; bacteriology and microbiology and animal behavior. The class may also include field trips and guest speakers to enrich and supplement studies in the course.

Advanced Placement Biology (0525) (APBO)

Prerequisites: Biology, Chemistry, and Physics or Physics Honors, as well as permission of the department. Particularly outstanding and interested students may be permitted to take Physics concurrently.

Laboratory Course

The AP Biology course places a strong emphasis on overarching themes in biology, and is organized into a conceptual framework consisting of four Big Ideas. They are: 1) Evolution drives the diversity of life; 2) Biological systems utilize free energy and molecular building blocks to grow, to reproduce, and to maintain dynamic homeostasis; 3) Living systems store, retrieve, transmit, and respond to information; and

4) Biological systems interact with each other and with the environment. To bring these concepts to life we study detailed examples taken from human and plant physiology, molecular and cellular biology, genetics, ecology, and evolution. Class discussions incorporate the analysis and interpretation of primary data, and emphasize current areas of scientific research. Inquiry driven labs are used to support student learning. Many of these labs are multi-week and allow students the freedom to design an experiment within the context of the investigation, while learning a variety of techniques used in biological research. Students are required to take the AP Biology exam at the conclusion of the course.

Advanced Placement Environmental Science (0570) (APEV)

Prerequisites: Biology, Chemistry, and Physics or Physics Honors, as well as permission of the department. Particularly outstanding and interested students may be permitted to take Physics concurrently.

Laboratory Course

AP Environmental Science is the equivalent of a one-semester, introductory college course in environmental science. The course is interdisciplinary, with elements of geology, ecology, environmental studies, chemistry, and physics. The course stresses scientific principles in the analysis of issues. The goal is to prepare the student with the tools required to understand interrelationships of the natural world in order to be able to evaluate environmental problems and solutions. Pressing issues of today—global climate change, loss of biodiversity, overpopulation, water supply—are a sample of topics covered. Although the course is designed to enable students to undertake more advanced study of environmental science, it is also a strong foundation for those students who will use its lessons in many other fields of study. Students are required to take the AP Environmental Science exam at the conclusion of the course.

Experiments in Physics and Chemistry (0532) (EXPC)

Prerequisites: Biology and Chemistry

Laboratory Course

This course is designed for those students who are interested in exploring topics in chemistry and physics from an experimental perspective. This full-year elective explores topics in a way that encourages independent thought and provides direct experience with scientific investigation. It also stresses presenting scientific findings in oral and written form. The course consists of five to seven units investigating topics such as analytical chemistry; chemical synthesis; organic chemistry; forensics; novel materials; mechanics; waves, sound, and light; analog and digital circuits; energy; and atmospheric science. In the third trimester, students will pursue an independent project on a subject of interest to the student, selected in consultation with the teacher. Although some library-based research will be involved, the major emphasis of the course will be explorations that involve data collection and analysis in the chemistry and physics labs.

Selected Topics in Physics (0543) (TPHY)

Prerequisites: Biology and Chemistry

Students select their area of emphasis within large themes that are selected by the instructor. One theme is considered each trimester. The themes will be *Information and Complexity*, a new and exciting study in science which considers systems that are more than the sum of their parts, self-evolving systems, cellular automata, and the underlying principles of thermodynamics and atomic and nuclear physics; *Energy and Climate*, which is built on the discussion of thermodynamics and understandings of energy sources such as oil, coal, gas, wind, solar, hydropower and nuclear, as well as evolving environmental, economic and political developments; and *Weapons*, a study of the physics of weapons of mass destruction including nuclear, biological, chemical and cyberweapons. All themes include discussions of the political, economic and social implications of recent findings in science. Questions of art and design feature prominently in

the discussions during the first two trimesters and contribute to student projects throughout. Students write several in-class essays, one review of a museum exhibit, film or play, and complete two self-defined projects each trimester. Readings and videos are assigned. There are no tests. Participation in class discussions and their on-line extensions is required and is considered in the grade. ***This course does not fulfill the Physics prerequisite for AP Science courses.***

Advanced Placement Chemistry (0535) (APCM)

Prerequisites: Biology, Chemistry, and Physics or Physics Honors, as well as permission of the department. Particularly outstanding and interested students may be permitted to take Physics concurrently. Students must be enrolled in or have completed Precalculus.

Laboratory Course

In this course, the equivalent of an introductory college course, considerable emphasis is placed on the quantitative aspects of chemistry as well as on sophisticated experimentation. The topics covered are similar to those in the introductory chemistry course, but on a much deeper level. They include chemical bonding, stoichiometry, gas laws, solutions, atomic and nuclear chemistry, thermodynamics, reaction kinetics, equilibrium, acids and bases, oxidation-reduction, and organic chemistry. The laboratory work incorporates a variety of techniques supported by analytical equipment. Extensive problem-solving skills are needed to master this course. Students are required to take the AP Chemistry examination at the conclusion of the course.

Advanced Placement Physics with Calculus [AP Physics C: Mechanics and AP Physics C: Electricity and Magnetism] (0545) (APPH)

Prerequisites: Biology, Chemistry, and Physics or Physics Honors, as well as permission of the department. Students must be enrolled in or have completed AP Calculus AB or AP Calculus BC.

Laboratory Course

AP Physics is a calculus-based treatment of physics concepts in mechanics and in electricity and magnetism. All calculus techniques are discussed before they are applied. Topics discussed include motion, Newton's laws, conservation of energy and momentum, gravitation, rotation and angular momentum, oscillations, electric and magnetic fields (including Gauss's law and Ampere's law), static and moving charges, circuits, and electromagnetism (including Faraday's law). Ideas from introductory physics are amplified and more broadly applied, and new ideas are introduced.

Concepts are developed and reinforced by measurements, modeling exercises, and applications in the laboratory. Modeling is done with spreadsheets or with software such as vPython and EasyJava Simulations, which are available at no cost online. Phenomena are sometimes filmed and then analyzed with iMovie and Tracker, another Open Source program. Lab reports are required periodically in a format usually used in college-level physics courses. Students submit problem sets most weeks, and take unit exams every three weeks or so. Students are required to take the AP Physics C exams in Mechanics and in Electricity and Magnetism at the conclusion of the course. A final project may be assigned in lieu of a final exam.

Science Research (0550) (SRES) (0552) (SRE1)

Open to students in Grades 10, 11, and 12. Selection is at the discretion of the department. Interested students must meet with the Science Research Coordinator to discuss possible projects, before submitting their Course Request sheet.

Half-credit course (0550) – Full-credit course (0552)

This is not a "course" in the usual sense of the word; it is an opportunity for students interested in designing and executing their own research projects. What students will do will depend on their needs and interests:

- Students who are pondering a project for the first time will design and complete small-scale projects that they may complete here at school or at home, with an eye toward finding a research

mentor for the following summer.

- Others may already be working in a research lab part-time and will continue that work, or perhaps have completed research. Those students will prepare for various local and national science fairs or for competitions such as the Intel science competition.

Some common activities range from project presentations during class as well as readings from the scientific literature on topics related to individual projects. All students must participate in SciTech, a science and technology celebration, which is held in mid-April at Horace Mann.

Summer School for HM Upper Division Students
Frequently Asked Questions

1) If I'm currently in the 8th grade and would like to take a Summer School course, what courses are available to me?

a) Math -- HM students currently enrolled in Algebra I 8B who have the approval of the Middle Division Department Chair may enroll in Algebra I during the summer session. Students who successfully complete this course with a B+ or higher can move on to Geometry in the fall of their 9th grade year. If you have any questions about this option, please speak to Mr. Jaros, Middle Division Math Dept. Chair.

New students entering Horace Mann in the fall of their 9th grade year and who have not successfully tested out of Algebra I in the entrance exam may be advised to take this course over the summer. New students who achieve a grade of B+ or higher in this course can move into Geometry in the fall. If you have any questions about this option, please speak to Mr. Worrall, Upper Division Math Dept. Chair.

b) Introduction to Computer Science -- Current 8th graders can enroll in this half credit (half day) course. Successful completion of the course with a passing grade fulfills the HM graduation requirement for our Computing and Communications Dept. Students completing this course also have the option of moving up to Computer Science 2 in the fall.

c) Italian I -- Students may opt to take Italian I in the summer for credit. Successful completion of this course would allow students to move into Italian II in the fall.

2) I am currently in the 9th grade and am enrolled in Algebra I. How can I take Algebra II in 10th grade?

Many students who entered HM as new students in 9th grade face this situation as do students from our own HM course, Algebra I 8B. You have several options:

a) You may enroll in Geometry in the summer following 9th grade. If you pass the course in the summer you will move into Algebra II in the fall.

b) With the approval of the Department Chair you may move into Algebra II in 10th grade and take Geometry in the summer following your 10th grade year. To do this you must guarantee, in writing, that you will complete Geometry in the summer following 10th grade. Failure to enroll in the course in the summer following Algebra II in 10th grade will mean that you will take Geometry as an 11th grader, but this is NOT advised.

c) Students who take Algebra I in 9th grade, and Geometry in 10th grade, also have the option of taking Algebra II in the summer following 10th grade. *Though this option is now available, it is not the preferred route of the UD Math Department.* Students are best served taking Algebra II during a regular academic year. If, however, you are a 10th grader who hasn't take Algebra II by the end of the academic year and would like to be able to move into Pre-Calculus in the 11th grade, this option can work for you. Students who opt for this route MUST have the approval of the UD Math Dept. Chair. Please speak to Mr. Worrall before applying.

For a more detailed explanation of the various paths you may follow taking Math in Summer School, see the PDF "Summer School Options for 9th & 10th Graders" found on the first page of the Summer School web page.

3) **I took Algebra I in 9th grade, and I'd like to be able to take Calculus by my Senior year. How can Summer School help me?**

Students who begin in Algebra I in 9th grade and who have been unable to use the summers after 9th and 10th grade to get on the normal math sequence by taking either Geometry or Algebra II may use the summer after 11th grade to take Pre-Calculus. This course is **ONLY** for students who, as 11th graders, are enrolled in Algebra II & Trigonometry. If a student completes the summer course with a C+ or higher, he or she can, with Department Chair approval, enroll in Contemporary Calculus in 12th grade. With a grade of B or higher, the student, with approval, will be eligible for AP Statistics. If a student achieves a grade of B+ or higher the student can, with department approval, apply for AP Calculus AB.

For any questions about these Math options and about how they may best fit into your overall academic plan, feel free to contact Mr. Worrall, Upper Division Math Dept. Chair.

4) **If I take United States History in the summer following 9th grade, what other history courses may I take in 10th grade?**

For students who love history and would like to take additional history courses during their Upper Division career, this summer history course opens up that possibility. Though students are not eligible to apply for AP credit history courses until the 11th grade, they may apply for all other history electives in the fall, including Economics. Students taking this summer course should be aware that 11th & 12th grade students are given priority in the scheduling of these electives during the regular academic year. If you enroll in United States History over the summer and plan to apply for an AP history elective in 11th grade, then it's highly recommended that you sign up for a full-credit history class in the 10th grade. Skipping an entire year of history will make it harder to succeed in an AP history elective. Conversely, for students for whom history is often a struggle during the regular year, the summer history course offers these students a chance to focus on a single subject without the distractions of other courses, other homework, and the high demands of extra-curricular activities.

If you have more questions about the U.S. History Survey course, please speak with Mr. Catapano, the instructor.

5) **I would like to take Chemistry in the summer after 9th grade. Is this an option?**

Students sometimes choose to take this course in the summer so that they may move into Physics during their 10th grade academic year or to create space in their schedule for another elective course (options for which are quite limited). However, the Science Department believes that not all students will be ready to take physics in 10th grade. In particular, students who wish to take Physics concurrently with Algebra II will need department approval to take Physics, and this approval generally requires a high level of achievement in Biology, Chemistry, and math. Students who have not completed or are not concurrently enrolled in Algebra II may not take Physics. You must discuss your plan for your schedule in detail with your grade dean before applying.

6) **I hear about lots of people taking Physics over the summer. When is this a good option?**

As with any Summer School course, the first question for all students is: how does this fit with my overall academic objectives? Most students take summer school Physics for one of three reasons: to create an opportunity to take an advanced Science course in 11th grade without dropping another subject; to be able to drop science in 11th grade to make time for another interest; or to be able to concentrate on physics without having to fit it into an already demanding 11th grade year. All students considering summer Physics need to understand the intensive nature of this course, and be committed to doing the required daily work.

For students with a strong interest in science, taking summer Physics and doing well in it allows them to fulfill basic requirements for advanced science courses before 11th grade. Students considering this

should consult with their advisor and think about how this fits into their overall academic plans for 11th and 12th grade. Students should also consult with their current science teacher to discuss the likelihood of their being admitted to an advanced science course in 11th grade.

Students who wish to take summer Physics so they can focus on it at a time when there are fewer conflicting demands often find that summer school provides an environment in which they can be very successful. Frequently, students remain for 1-2 hours after classes officially end at 2:00 pm to work on problem sets with others, to get individual help from the teaching assistants and student assistants, and to meet with their teacher. The environment of the course is supportive, and students bond over lab work and problem sets in a way that is not often possible during the regular academic year.

7) **If I took Chemistry in the summer, should I take Physics in the summer, too?**

The answer to this question depends on the academic program of the individual student. It may or may not be a good idea. You should consult with your dean, advisor, and science teacher, and also with the College Counseling office.

8) **I'm worried that I won't be able to keep up. Is Summer School right for me?**

The pace of Summer School isn't for everyone. One day is the equivalent of an entire week of regular classes and in the case of the science courses each day is a week plus a lab period. To aid students in dealing with this fast paced environment teachers enlist a variety of methods to help students get through the day. There are break periods, snack moments, homework sessions in the middle of the morning or afternoon sessions to break up the pattern of lectures and classes, and a very deep commitment on the part of the teachers to help you get through your course. Help is always available from your teachers and your fellow students, and the Summer School office door is always open. I am also available to help you when you are feeling overwhelmed.

9) **How do I sign up for Summer School?**

Applications are available on the Summer Programs -- Summer School link on the HM Home Page. Applications will be accepted directly by me in the Katz Library or can be mailed to the attention of Galina Rutoiz in the Business Office. A student **MUST** have the approval of his or her **advisor** and **parent** to take any course for credit. There are spaces available on the application for their signatures. No application will be considered complete without these signatures.

If you have any questions that I haven't addressed here, feel free to stop by and speak to me in person in the library to get more advice about deciding whether Summer School is right for you.

Caroline Bartels
Director of Summer School
347-582-7043
Caroline_Bartels@horacemann.org