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Graduation Requirements

Eighteen full credits in the academic disciplines (see next page for departmental requirements)

Four years of Physical Education/team sports/approved out of school contract

Certification in CPR/AED

HMO (9th grade Counseling & Guidance requirement)

Health 1 (Physical Education & Health requirement)
Health 2 (Beginning Class of 2022)

Seminar on Identity (11th grade Interdisciplinary requirement)

Advisory

Service Learning
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

**World Languages**
Proficiency through Level III in Chinese, French, Japanese, Latin, or Spanish.

**Science**
Biology
Chemistry or Physics

**Mathematics**
Geometry
Algebra II and Trigonometry

**Arts**
A total of two credits in grades nine through twelve, minimum. All students must take at least one-half credit in studio/performance, and at least one-half credit in appreciation.

**Physical Education & Health**
Physical Education in 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 1
Health Education 2 (Beginning Class of ‘22)

**Computer Science & Robotics**
One-half credit in grades nine through twelve.

**Counseling & Guidance**
HMO in grade nine.

**Interdisciplinary**
SOI in grade eleven.
**Service-Learning**

In the 2020-2021 academic year, the Upper Division requirement will be grade-wide Service-Learning Days. Attendance is required of all students for their Grade’s Service-Learning Day, as a graduation requirement. Dates for each grade’s day will be available by the end of the 2019-2020 academic year.

In the fall, the CCVA will be reaching out to the HM community for Committee members from each grade to plan and implement the grade-wide Service-Learning Days, and the individual activities within each day.

**Service-Learning Team and HM 246**

The Upper Division Service-Learning Team and HM 246 continue to be the flagship service-learning programs at HM. Students in grades 9-12 who would like to continue their service-learning beyond the requirement are encouraged to apply.

The Service-Learning Team meets weekly after school on Tuesdays for visits to local community agencies, where we participate in programs for elementary-aged participants, and a program for Older Adults; and Thursdays, when we meet on campus as a Team for reflection, learning and planning.

The HM 246 program meets weekly after school on campus. Elementary and middle school-aged participants from local agencies come to the HM campus for programs led by HM Upper Division students.

Each program operates on the “trimester” schedule, similar to the athletic schedule. Students commit to a minimum of one trimester participation.

For more information on service-learning at HM, please go to [www.hmccva.org](http://www.hmccva.org) or email [servicelearning@horacemann.org](mailto:servicelearning@horacemann.org).
The Katz Library

The Katz Library for the Upper Division is a central hub of student activity at Horace Mann School. Between making reading recommendations for pleasure reading, helping with databases, or assisting in finding books for specific projects, the librarians and staff are always available to students and faculty.

Because we believe that research skills should not be learned in a vacuum, but rather should be tied to curricula, librarians work closely with faculty and students to provide detailed instruction around specific assignments. To this end, the library collects heavily in the areas that will support the curriculum and we consistently order books upon request.

The Library’s collection houses nearly 54,000 books, videos, DVDs, and audio books, as well as many magazines. In addition, the Katz Library subscribes to roughly fifty research databases that are available 24/7 through remote access with a student or faculty ID. The library provides seating for 180 students, with soft-seating areas for comfortable leisure reading and studying. Over forty laptops are available for student use in the library, as well as twenty desktops. Seven group study rooms, located on both floors of the library, allow students to work collaboratively. One of these rooms also serves as an electronic classroom where research classes meet to work with librarians and their teacher. Students may eat lunch and drink throughout the library, but they are expected to keep the library clean.

Throughout the school year, the Katz Library hosts a variety of special events, such as club-sponsored break festivities, holiday movie celebrations, and Library Spirit Day. Some of our most popular programs are the weekly book group meetings. Upper Division students take part in twice-weekly Literary Lunch Chat meetings where students discuss books they are currently reading for pleasure and for school. The group discussions frequently focus on beloved books that are being made into movies or television series. The Mock Printz Committee, which meets weekly, chooses the best young adult book published during the year.

Katz Library Hours
Monday-Friday: 8:15-5:50
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
World Languages Usually level 2 or 2 Honors in their chosen language, depending on the level of previous preparation and/or placement exam. Students are welcome to begin a new language at level 1.
Geometry

**Half credit courses:**

Physical Education
Students choose ONE: Concepts of Physical Fitness/Team and Life Sport, CPR/First Aid, Lifeguarding, Learn to Swim, Health 1 (must be taken in 9th or 10th grade) or Dance for PE credit.

Arts Half credit course recommended of either type-studio/performance or appreciation.

Computer Science
Half credit course recommended.

**Additional requirements:**

HMO
Advisory
Service Learning
Grade Ten

**Full credit courses:**

English 10

United States History

World Languages Usually level 3 or 3 Honors in their chosen language. The successful completion of level 3 of the same language satisfies the graduation requirement in World Languages.

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

Algebra II and Trigonometry

**Half credit courses:**

Physical Education & Health Students choose ONE: Concepts of Physical Fitness/Team and Life Sport, CPR/First Aid, Lifeguarding, Learn to Swim, Health 1 (must be taken in 9th or 10th grade) or Dance for PE credit or Varsity PE.

Arts Half credit course recommended.

Computer Science & Robotics 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.

**Additional requirements:**

Advisory

Service Learning
Grade Eleven

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

Beginning with the class of 2022, the Upper Division is discontinuing our Advanced Placement program. We are replacing these courses with innovative, challenging classes that speak to our students’ needs as twenty-first century learners. As rising ninth, tenth, and eleventh graders plan their courses, they should keep in mind that a variety of advanced upper level courses will be available within each discipline, but these courses will not be designated as AP courses, nor will they prepare students to take the AP exam. We will administer AP exams only as long as we offer AP courses. By the spring of 2022, no AP exams will be administered on our campus.

**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 World Languages, 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 2021: Students must take a non-AP course before graduation. 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 seniors and require departmental approval.

Class of 2022, 2023, and 2024: Students are required to take a third year of History in either grade 11 or 12.
**World Languages**

Students usually take a Level 4, Studies, or Seminar course, or the next course in their sequence of study. Students may elect to study a new world language.

**Science**

Most students take Physics. Students who have completed Biology and Chemistry may take an elective course. Qualified students in the class of 2021 may take an AP course.

**Mathematics**

Most students take a precalculus course (3 levels). Qualified students may also take Introduction to Statistics and Probability or Discrete Math concurrently with a precalculus course.

**Arts**

Students may take a full credit class in the Visual Arts Department

### Half credit courses:

**Physical Education & Health**

Students choose ONE: Concepts of Physical Fitness/Team and Life Sport, Dance for PE credit, Lifeguarding, Learn to Swim, Health 2 (must be taken in 11th or 12th grade) Varsity PE or CPR/First Aid.

**Arts**

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

**Computer Science & Robotics**

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, either full- or half credit.

### Additional requirements:

- Interdisciplinary
- SOI
- Advisory
- Service Learning
Grade Twelve

Note that student programs are certain to vary widely in grade twelve. See each departmental listing for the available courses and their prerequisite and selection procedures.

Beginning with the Class of 2022, the Upper Division is discontinuing our Advanced Placement program. We will be replacing these courses with innovative, challenging classes that speak to our students’ needs as twenty-first century learners. As rising ninth, tenth, and eleventh graders plan their courses, they should keep in mind that a variety of advanced upper level courses will be available within each discipline, but these courses will not be designated as AP courses, nor will they prepare students to take the AP exam. We will administer AP exams only as long as we offer AP courses. By the spring of 2022, no AP exams will be administered on our campus.

**Full credit courses:**

**English**

3 or 4 other

Full credit courses

By the end of 10th grade, most students have satisfied minimum graduation requirements in World Languages, 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 elective courses at this point.

**History**

Class of 2021: Students must take at least one non-AP History elective of their choice before graduation. 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 seniors and require departmental approval.

Class of 2022, 2023, and 2024: Students are required to take a third year of History in either grade 11 or 12.
World Languages  Students usually take Level 5, a Language & Culture course, or a Seminar class. Seniors are welcome to begin a new world language.

Science  Students who have completed Biology and Chemistry may take an elective course. Qualified students in the class of 2021 may take either a 400-level course or an AP course.

Mathematics  Students may take a calculus course, a statistics course, Senior Math Electives, Discrete Math and/or Math Seminar.

Interdisciplinary  Students may apply to do a full credit Independent Study.

Arts  Students may take a full credit course in the Visual Arts Department.

**Half credit courses:**

Physical Education & Health  Students choose ONE: Concepts of Physical Fitness/Team and Life Sport, Dance for PE credit, Lifeguarding, Learn to Swim, Health 2 (beginning class of 2022; must be taken in 11th or 12th grade) Varsity PE or CPR/First Aid.

Art  Students continue to work on requirement or, if requirement has been met, students may choose an elective art course, either full-or half credit.

Computer Science & Robotics  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 half or full credit elective course in this department.

**Additional requirements:**

Advisory

Service Learning
Activities

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:

<table>
<thead>
<tr>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys’ Cross-Country (V)</td>
<td>Boys’ Basketball (JV, V)</td>
<td>Baseball (JV, V)</td>
</tr>
<tr>
<td>Girls’ Cross-Country (V)</td>
<td>Girls’ Basketball (JV, V)</td>
<td>Boys’ Crew (V)</td>
</tr>
<tr>
<td>Field Hockey (JV, V)</td>
<td>Boys’ Fencing (V)</td>
<td>Girls’ Crew (V)</td>
</tr>
<tr>
<td>Football (JV, V)</td>
<td>Girls’ Fencing (V)</td>
<td>Golf (V)</td>
</tr>
<tr>
<td>Boys’ Soccer (JV, V)</td>
<td>Boys’ Skiing (V)</td>
<td>Boys’ Lacrosse (JV, V)</td>
</tr>
<tr>
<td>Girls’ Soccer (JV, V)</td>
<td>Girls’ Skiing (V)</td>
<td>Girls’ Lacrosse (JV, V)</td>
</tr>
<tr>
<td>Girls’ Tennis (JV, V)</td>
<td>Girls’ Squash (V)</td>
<td>Girls’ Rugby (V)</td>
</tr>
<tr>
<td>Girls’ Volleyball (JV, V)</td>
<td>Boys’ Squash (V)</td>
<td>Girls’ Softball (JV, V)</td>
</tr>
<tr>
<td>Water Polo (JV, V)</td>
<td>Boys’ Swimming (V)</td>
<td>Boys’ Tennis (JV, V)</td>
</tr>
<tr>
<td></td>
<td>Girls’ Swimming (V)</td>
<td>Boys’ Track &amp; Field (V)</td>
</tr>
<tr>
<td></td>
<td>Table Tennis (V)</td>
<td>Girls’ Track &amp; Field (V)</td>
</tr>
<tr>
<td></td>
<td>Boys’ Indoor Track (V)</td>
<td>Boys’ Volleyball (V)</td>
</tr>
<tr>
<td></td>
<td>Girls’ Indoor Track (V)</td>
<td>Ultimate Frisbee (V)</td>
</tr>
<tr>
<td></td>
<td>Wrestling (JV, V)</td>
<td></td>
</tr>
</tbody>
</table>

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

- Artsphere
- Bibliomann
- Business Mann
- Cinemann
- ECO2
- Excelsior
- FAD Magazine
- Folio 51
- For the Culture
- For the Win
- Framework
- HM Eats
- LitMag
- Mannikin
- Manuscript
- OPUS
- Pixelated
- Prime
- Rec Mag
- Spectrum
- The Chronicle
- The Empire
- The Horace Mann Record
- The Horace Mann Review
- The Linguist
- The Mantra
- The Mix
- The Verdict
- Venture
Clubs
Horace Mann offers a wide variety of clubs for students who wish to pursue interests not addressed by course offerings or explore in greater depth beyond the classroom. Each club is advised by a member of the Horace Mann faculty and is supported by all available school resources. We encourage students to join one or more clubs that match their interests, as these extra-curricular activities are integral to student life in the Upper Division. When planning their schedules, students should take their club commitments into consideration. It is often better to make a significant commitment to one or two clubs that are of great interest than to join an array of clubs and not have the time to actively engaged in any of them. Most of the Upper Division’s active clubs are listed here:

Anecdotes
Animal Awareness
Apsis Aero
Art Club
Automotive Engineering Club
Book Club
Cancer Awareness Club
Chess Club
Classics Society
Debate
DECA Business Club
East Wind West Wind
Economics Challenge
Esports Club
F=ma Physics Olympiad Club
Fashion Design Club
Feminist Students Association
FRC Robotics
French Club
FTC Robotics
Game Knights
Gender Sexuality Alliance (GSA)
Girls on the Run
Girls Who Code
Glam4Good
Green HM
Habitat for Humanity
Happiness Club
Health Disparities
Heart to Heart
HM Civic Engagement Club
HM Lions Report
HM Stomp
HM Technology Club
HM Ukes
Horace Mann Business League
Horace Mann Dance Company (HMDC)
Horace Mann Hospitality Club
Horace Mann United Nations Club
Horace Mann Music Outreach Club
Horace Mann Social Impact Investment Club
Horace Mann Theatre Company (HMTC)
Hospital Outreach Program
HuMann Rights
Improv Club
InCHM Startup Incubator
ISO (Into Student Optics)
Latinx Influencers of Tomorrow
Linguistics Olympiad
Mock Trial
Model Congress
Moneyball
Operation Prom
Operation Smile
OutDoors Club
Parliamentary Debate
Period@HM
Persian Club
Poetry Out Loud
Saturday Morning Music Program
Saturday Morning Tutoring
Science Bowl
Science Olympiad
Seize the Seas
She’s the First
Shoot your Shot
Soldiers’ Stories
Spanish Club
Speech Team
STEAM on the Hill
Students for Students
Sunshine Mail
Teams
The Programming Club
The Union
Trivia Team
UD Math Team
Wellness Initiative Club
Women in Business
Women in Science and Engineering (WISE)
Course Number Designations at HM

100-level  Pass/fail, partial year required courses

200-level  Foundational courses appropriate for all UD students

300-level  Elective courses appropriate for all UD students who have taken the prerequisite foundational coursework, typically taken in 11th/12th grade

400-level  Elective courses with substantial additional rigor; entry requires permission of the department. Students are generally limited to no more than 3 full-credit 400/400S level courses.

200H / 300H  Honors courses which typically move at a faster pace and cover additional material relative to equivalent non-Honors courses; entry requires permission of the department.

400H-level  Seminar style courses which incorporate a significant amount of student-initiated and student-led work

AP and 400-Level Courses

Each department is responsible for setting appropriate requirements for the AP and 400-level courses that it offers. All AP and 400-level courses require departmental approval - the specific requirements are outlined in individual course descriptions. Students who wish to apply for AP or 400-level 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.

Beginning with the class of 2022, the Upper Division is discontinuing our Advanced Placement program. We are replacing these courses with innovative, challenging classes that speak to our students’ needs as twenty-first century learners. As rising ninth, tenth, and eleventh graders plan their courses, they should keep in mind that a variety of advanced upper level courses will be available within each discipline, but these courses will not be designated as AP courses, nor will they prepare students to take the AP exam. We will administer AP exams only as long as we offer AP courses. By the spring of 2022, no AP exams will be administered on our campus.
Arts

The Arts curriculum balances performance and practice with careful academic study and analysis. Whether in Music, Theatre/Dance/Film Studies, or Visual Arts, students are challenged to use their intellectual, emotional and physical intelligence to create meaningful work, exhibitions and performances. Instructors encourage students to take the risks necessary to explore, create and grow as artists, while providing for them the framework for understanding how their endeavors relate to the larger artistic world.

**Graduation Requirement:**

A total of two credits in grades nine through twelve. All students must take at least one-half credit in studio/performance, and at least one-half credit in appreciation in any arts discipline.

**Music (ARTM) Courses Offered in 2020-21**

200-level
- Glee Club (ARTM 210)
- Jazz Combo (ARTM 211)
- Orchestra (ARTM 212)
- Steel Drum Ensemble (ARTM 213)
- Wind Ensemble (ARTM 214)
- Recording Studio Technology 1 (ARTM 215)
- Great Music of Modern Times (ARTM 230)
- History of Jazz (ARTM 231)
- History of Music: Bach to Stravinsky (ARTM 232)
- Music Theory (ARTM 233)

300-level
- Recording Studio Technology 2 (ARTM 310)

400-level
- Chamber Winds (ARTM 410)
- Concert Glee Club (ARTM 411)
- Treble Choir (ARTM 412)
- String Sinfonietta (ARTM 413)
- AP Music Theory (ARTM 401)
- Music Theory and Composition (ARTM 420)
- Topics in Music History Seminar (ARTM 421S)
Theatre, Dance, and Film Studies (ARTDF) Courses Offered in 2020-21

200-level
- Acting (ARTDF 210)
- Stagecraft in School - Period H Crew (ARTDF 211)
- Dance Workshop
- The Art of Mindfulness Yoga (ARTDF 213)
- Dance in Historical and Cultural Perspective (ARTDF 230)
- History of American Musical Theatre (ARTDF 231)
- The Art of Film (ARTDF 232)
- Performance in Major Theatre & Dance Productions (⅓ credit)
- Stagecraft Afterschool (⅓ credit)

300-level
- Playwriting and Production (ARTDF 311)
- Theatre Design and Production (ARTDF 312)
- Film Studies (ARTDF 330)
- Dance Performance

400-level
- Musical Theatre Performance (ARTDF 410S)
- Theatre Ensemble Seminar (ARTDF 411S)
- Design Production Workshop (ARTDF 412S)

Visual Arts (ARTV) Courses Offered in 2020-21

200-level
- Ceramics 1: Introduction to Ceramics (ARTV 210)
- Ceramics 2: The Pottery Wheel (ARTV 220)
- Drawing and Painting 1: Conventions of Representation and Personal Exploration (ARTV 211)
- Drawing and Painting 2: Naturalism, Abstraction, and Imagination (ARTV 221)
- Sculpture 1: Intro to Sculpture in Multimedia (ARTV 212)
- Sculpture 2: Textiles and Soft Media (ARTV 222)
- Printmaking 1 (ARTV 213)
- Printmaking 2 (ARTV 223)
- Photography 1: Understanding Light and Composition (ARTV 214)
- Photography 2: All About Color (ARTV 224)
- Filmmaking 1: The Art of Visual Storytelling (ARTV 215)
- Filmmaking 2: Field and Studio Production (ARTV 225)
- Art History: Art of the Ancient World (ARTV 216)
- Art History: Contemporary Art (ARTV 217)
- Art History: Global Architecture (ARTV 219)
300-level
□ Ceramics 3: Complex Forms and Surfaces (ARTV 310)
□ Ceramics 4: Building a Body of Work (ARTV 320)
□ Drawing and Painting 3: Structures of Forms and Ideas (ARTV 311)
□ Drawing and Painting 4: Themes and Personal Invention (ARTV 321)
□ Sculpture 3: Hard Media (ARTV 312)
□ Sculpture 4: Contemporary Sculpture and Installation (ARTV 322)
□ Printmaking 3 (ARTV 313)
□ Photography 3: Medium Format (ARTV 314)
□ Photography 4: Visual Language (ARTV 324)
□ Filmmaking 3: Creating the Short Film (ARTV 315)
□ Filmmaking 4: Advanced Filmmakers Workshop (ARTV 325)

400-level
□ AP Art History (ARTV 401)
□ AP Studio Art: Photography (ARTV 402)
□ AP Studio Art: Drawing and Painting (ARTV 403)
□ Art History: What is a Masterpiece? (ARTV 415)
□ Studies in Art History: Imagination and Fantasy in Global Art (ARTV 420)
□ Ceramics 5: Directed Study in Ceramics (ARTV 410S)
□ Drawing and Painting 5: Directed Study in D&P (ARTV 411S)
□ Sculpture 5: Directed Study in Sculpture (ARTV 412S)
□ Printmaking 4: Directed Study in Printmaking (ARTV 413S)
□ Photography 5: Directed Study in Photography (ARTV 414S)
Music

200-level courses:

**ARTM 210 - Glee Club**
*One-half credit, meets every other day*
*Prerequisites: Audition and approval of the instructor.*

*Studio/Performance credit*

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 practices and developing a love for group singing. The ensemble performs three to five 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.

**ARTM 211 - Jazz Combo**
*One-half credit, meets every other day*
*Prerequisites: Audition and approval of the instructor.*

*Co-requisite: Enrollment in Wind Ensemble*

*Studio/Performance credit*

This course is for students who are 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. Students in all grades may audition for Jazz Combo.

**ARTM 212 - Orchestra**
*One-half credit, meets every other day*
*Prerequisites: Audition and approval of the instructor.*

*Studio/Performance Credit*

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 throughout the year 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. Students in all grades may audition for Orchestra.
**ARTM 213 - Steel Drum Ensemble**
*One-half credit, meets every other day*
*Prerequisites: None*

**Studio/Performance Credit**
This ensemble is designed to expose students to steel drum band works from a variety of musical styles. Students develop the skills necessary to perform musical works from genres such as samba, calypso, pop and reggae. Some class time is 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 read from sheet music. Students are required to perform in three evening concerts during the course of the year. Students in all grades may enroll in the Steel Drum Ensemble.

**ARTM 214 - Wind Ensemble**
*One-half credit, meets every other day*
*Prerequisites: Audition and approval of the instructor.*

**Studio/Performance Credit**
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 chamber ensembles. Participation in all dress rehearsals and concerts is required. Students in all grades may audition for the Wind Ensemble.

**ARTM 215 - Recording Studio Technology 1**
*One-half credit, meets every other day*
*Prerequisites: Approval of the instructor.*
*Open to students in grades 10-12*

**Studio/Performance credit**
This course is a hands-on study of modern music creation utilizing Horace Mann’s ProTools-equipped recording studio. Students 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, strong computer skills and Music Theory (ARTM 233) are strongly recommended.

**ARTM 230 - Great Music of Modern Times**
*One-half credit, meets every other day*
*Prerequisites: None*

*Appreciation credit*
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 students will learn how to thoughtfully listen and analyze music to search for answers to these questions. Along the way, students will explore select examples of many different genres and expand our knowledge and awareness of contemporary music.

**ARTM 231 - History of Jazz**
*One-half credit, meets every other day*
*Prerequisites: None*
*Appreciation credit*
This 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 though 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 and may have to attend one live jazz event as a class.

**ARTM 232 - History of Music: Bach to Stravinsky**
*One-half credit, meets every other day*
*Prerequisites: None*
*Appreciation credit*
This course provides students with an overview of Western classical music history. Through listening, viewing, and analyzing representative musical works from all major style periods, students will study the evolution of each style period, Western harmony, and noteworthy composers and the cultures and times in which they created their work.

**ARTM 233 - Music Theory**
*One-half credit, meets every other day*
*Prerequisites: None*
*Appreciation credit*
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 harmonic vocabulary while being exposed to a wide range of musical styles and works.
300-level courses:

**ARTM 310 – Recording Studio Technology 2**
One-half credit, meets every other day  
**Prerequisites:** Approval of the instructor and the successful completion of Recording Studio Technology 1 (ARTM 215)  
Open to students in grades 10-12  
**Studio/Performance credit**
The Studio Production 1 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 help to shape the course’s content and breadth. Topics covered 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.

400-level courses:

**ARTM 401 - AP Music Theory**
Full credit, meets 5 days/week  
**Prerequisites:** Departmental approval  
Open only to seniors in 2020-2021.  
**Appreciation credit**
This course is designed to correspond with collegiate-level introductory courses in Music Theory. The development of musicianship skills, including dictation, sight singing, and functional harmony are central to the course, as is the student’s ability to recognize, understand and describe elements and processes of tonal music that are presented in scores. Notational skills, fluency and speed in all concepts are emphasized.

**ARTM 410 - Chamber Winds**
One-half credit, meets every other day  
**Prerequisites:** Audition and approval of the instructor  
**Co-requisite:** Wind Ensemble  
**Studio/Performance Credit**
Chamber Winds is an advanced wind and percussion group that focuses on classic and contemporary works for chamber ensemble. This select ensemble performs at least 4 times per year, with additional opportunities available. Throughout the year, we explore the fine details of ensemble playing, including tone production, technique, and an understanding of each part within the complete texture. Additionally, Chamber Winds members are expected to study
privately on their instrument and serve as musical leaders in UD and MD ensembles. Every student is required to participate in all dress rehearsals and concerts.

**ARTM 411 - Concert Glee Club**
One-half credit, meets every other day  
Prerequisites: Audition and approval of the instructor  
Open to students in grades 10-12  
Studio/Performance Credit  
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 four to eight 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.

**ARTM 412 - Treble Choir**
One-half credit, meets every other day  
Prerequisites: Audition and approval of the instructor  
Open to students in grades 10-12  
Studio/Performance Credit  
The Treble Choir is a select ensemble open to treble singers in grades 10, 11, and 12 that performs advanced choral literature from a large range of musical traditions. The ensemble performs four to eight 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.

**ARTM 413 - String Sinfonietta**
One-half credit, meets every other day  
Prerequisites: Audition and approval of the instructor  
Co-requisite: Orchestra  
Studio/Performance Credit  
The String Sinfonietta is a select ensemble that performs advanced string repertoire from a wide variety of eras and musical traditions, with special attention given to works composed in the last one hundred years. In addition, members of Sinfonietta are expected to serve as musical leaders of the HM Orchestra community, and to actively contribute to the well being of both UD and MD ensembles. The ensemble performs a minimum of four times a year, both on and off campus. Private music lessons are expected and attendance at all dress rehearsals and concerts is mandatory.
ARTM 420 - Music Theory and Composition
Full credit, meets 5 days/week
Prerequisites: Departmental approval
Appreciation credit
This course is designed to develop a student's ability to understand, manipulate, and create music. Through a series of compositional assignments, the analysis of form and structures, aural recognition, sight singing, and dictation, students will gain a much deeper understanding of both the art and the craft of musical composition, as well as a greater understanding of musical analysis. By the end of the year, the students can expect to have created a portfolio of original compositions for a variety of instruments and ensembles.

400S-level courses:

ARTM 421S - Topics in Music History Seminar
Full credit, meets 5 days/week
Prerequisites: Departmental approval
Open to students in grades 11 and 12
Appreciation credit
This is a topics-based course for students with advanced knowledge in music history and analysis. This class explores and examines musical traditions from around the world and challenges students to analyze music’s function and role from cultural and political perspectives. Independent research, class presentations, discussions, listening/viewing sessions, and reading assignments may be supplemented by field trips to musical events in New York City.

Private Music Lessons
Lessons meet once per week during students’ free periods or after school 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 $1,500.00.
Theatre, Dance, and Film Studies

200-level courses:

**ARTDF 210 - Acting**
One-half credit, meets every other day  
Prerequisites: None  
Studio/Performance credit
Acting is for students who are interested in the history and fundamentals of Acting. Skills covered include physical behavior, stage movement, voice and speech, character development, improvisation, and historical or period drama. Using the work of contemporary and classical playwrights, students begin to develop their own technique. We open our studio to the school community for in-class performances at least once per semester. Attending performances outside of Horace Mann in addition to all school productions is a requirement of the course. Students who take this course are prepared for Theatre Ensemble Seminar and Acting for the Camera.

**ARTDF 211 - Stagecraft in School - Period H Crew**
One-half credit, meets every other day  
Prerequisites: None  
Studio/Performance credit
This is a full-year, half credit course which meets during a regularly scheduled period during the school 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 backstage activities for the season’s productions.

**ARTDF 212 - Dance Workshop for Arts Credit**  
**PHED 212 - Dance Workshop for PE Credit**
Meets every other day  
Prerequisites: Participation in after-school sports does not exempt students from Dance Workshop.  
Studio/Performance one-half credit or PE credit
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.

**ARTDF 213 - The Art of Mindfulness Yoga**

*One-half credit, meets every other day*

*Prerequisites: None*

*Studio/Performance credit*

A regular yoga practice increases mental clarity, boosts memory, reduces stress and improves overall health and well-being. This full-year, half credit course consists of three main components:

- **Breathing Exercises** to calm, energize or focus the body/mind, and to create greater communication between the two brain hemispheres
- **Yogic Postures** (asanas) to build strength, balance, and flexibility
- **Mindfulness Meditation** to relax the nervous system, increase concentration and improve decision making

Yoga and mindfulness have also been known to build confidence and support foundational skills in actors, singers, dancers and public speakers.

**ARTDF 230 - Dance in Historical and Cultural Perspective**

*One-half credit, meets every other day*

*Prerequisites: None*

*Appreciation credit*

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.
**ARTDF 231 - History of American Musical Theatre**

*One-half credit, meets every other day*

*Prerequisites: None*

*Appreciation credit*

Examining musical theatre as a commercial product, an agent for cultural change, and as a chronicle of our times, this course is an historical survey of the American musical. We look at the musical's development from its origins in burlesque, light opera, and vaudeville; to its contemporary form, with a focus on the changing views of audiences and in the context of American and world culture. The class attends selected performances during the course of the year. Attendance at Horace Mann musical theatre events is also expected.

**ARTDF 232 - The Art of Film**

*One-half credit, meets every other day*

*Prerequisites: None*

*Appreciation credit*

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.

**Performance in Major Theatre & Dance Productions**

*One-third credit, meets Mondays, Wednesdays and Fridays from end of school until 5:45pm.*

*Prerequisites: Auditions*

*Studio/Performance Credit*

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 Horace Mann 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 Horace Mann Dance Company is to inspire and guide students in all elements of dance, choreography, and performance skills. The dance concert consists of faculty-generated choreography, providing dancers with an optimum rehearsal and performance experience. The dance concert occurs every fourth year.
Stagecraft Afterschool
One-third credit, meets Tuesdays and Thursdays from end of school until 5:45pm.
Prerequisites: None
Studio/Performance credit
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 Horace Mann 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.

300-level courses:

ARTDF 311 - Playwriting and Production
One-half credit, meets every other day
Prerequisites: Submission of a short scene and approval of the instructor. Grades 10-12
Studio/Performance credit
Students begin reading plays by influential playwrights, 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 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.

ARTDF 312 - Theatre Design and Production
One-half credit, meets every other day
Prerequisites: None
Studio/Performance credit
Theatre Production Design introduces Upper Division students to the tools and techniques necessary to the process of designing for the theatre as well as designing in other related fields such as interior architecture and themed environments. Areas that are studied include drafting of plans and elevations, scale model making, color
rendering, CAD lighting plots and architectural sketching. Students work in a variety of media as they explore set, lighting and costume design for the theatre. Emphasis is 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.

**ARTDF 313 - Dance Performance for Arts Credit**
**PHED 313 – Dance Performance for PE Credit**
One-half credit, meets every other day
Prerequisites: Approval of the instructor
Participation in after-school sports does not exempt students from Dance Performance.
Studio/Performance one-half credit or PE credit
This course builds upon the foundations established in Dance Workshop and finally places the emphasis on performance. The course culminates in multiple presentations throughout the year.

**ARTDF 330 - Film Studies**
One-half credit, meets every other day
Prerequisites: The Art of Film or by approval of the instructor
Grades 10-12
Appreciation credit
Building on the foundation of The Art of Film, Film Studies investigates selected, more advanced topics dealing with various aspects of cinema. Each semester concentrates on three areas of study:

**Semester I:**
Cinematic grammar and style
The art of film and auteur theory
Image and text

**Semester II:**
The soundscape of motion pictures
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.
400-level courses

**ARTDF 410S - Musical Theatre Performance**
One-half credit, meets every other day
Prerequisites: At least 1 credit (2 half credits) in any combination of Acting, Dance Workshop, Dance Performance, Glee Club, Concert Glee Club, Treble Choir, or successful participation in school sponsored theatrical productions.
Auditions for this class will be held in the Spring for the following Fall.
Grades 11-12

Studio/Performance credit
Through individualized instruction and small group work, students identify areas of artistic growth and work with their instructors to select and learn material from the Musical Theatre. Students have time in class to prepare and perform their pieces in a studio setting. In this course students approach the works of the Musical Theatre from the perspective of both actors and musicians. Students work together and independently to create a book of repertoire that is representative of the world of musical theatre, their personality, and skill set. Performances showcasing this work are open to the greater school community.

**ARTDF 411S - Theatre Ensemble Seminar**
One-half credit, meets every other day
Prerequisites: At least 1 Credit (2 half credits) in any combination of Acting, Acting for the Camera, Dance Workshop, Dance Performance, Theatre Design and Production, Musical Theatre Performance, Playwriting and Production, Design Production Workshop, or by approval of the instructor.
Grades 10-12

Studio/Performance credit
Theatre Ensemble Seminar gives students the opportunity to explore the process of mounting a production as a Theatre Company. Students work together to conceptualize, rehearse, design, direct, and perform a production for their school community. Experiments in acting, movement, voice, playwriting, and design are used to create original performances. Theatre Ensemble is an immersive, hands-on, student-centered, and student-motivated course designed for curious theatre-artists with a grounding in the principles of performance and design.
**ARTDF 412S - Design Production Workshop**  
*One-half credit, meets every other day*  
**Prerequisites:** Theatre Design and Production  
**Grades 10-12**  
**Studio/Performance credit**  
This class is a continuation of concepts studied in Theatre Design and Production. Students work on further refining their skills in drafting, model making and color rendering. This course allows for more in-depth discussions of design production and text. Collaborative design thinking processes are the basis of this course. Areas of study include performance design, architectural, and themed environments. Students also have the opportunity to develop designs for Horace Mann School main stage productions in theatre and dance.

**COURSES NOT OFFERED IN 2020-21**

**ARTDF 310 - Acting for the Camera**  
*[Not offered in 2020-21]*  
*One-half credit, meets every other day*  
**Prerequisites:** Acting or by approval of the instructor. Grades 10-12  
**Studio/Performance credit**  
This course provides practical instruction for acting on camera and navigating a film set. The fundamental techniques covered in Acting are applied to performances in a variety of formats, including film, web content, commercials and television. Actors experiment with a range of styles and genres using both original and produced text. Throughout the year, students in Acting for the Camera collaborate with students taking Film II to create unique on-screen moments. The class watches and discusses a wide variety of on-screen performances and applies observations to their own craft. This course is specifically geared to the 10th-12th grade actor, but is open to anyone with an interest in developing confidence and skills on camera.
Visual Arts

The Visual Arts Department provides all students with critical making and thinking tools that allow for self-reflection and expression through the physical manipulation of the world. Students learn to broadly apply practical skills and conceptual modes to understanding and representing human experience. They are encouraged to engage in interdisciplinary work, enriching a core study sequence with the philosophy, media, methods, and technologies of related and disparate artistic and academic disciplines – ultimately broadening their understanding of the world beyond Horace Mann School.

History of Art
200-level courses:

**ARTV 216 - Art History: Art of the Ancient World**
*One-half credit, meets every other day*
**Prerequisites:** None
**Appreciation**
The very definition of “Ancient Art” is one that is constantly re-evaluated by art historians. We will begin this course in “pre-history,” debating what qualifies as art, and study similarities (and differences) between works that were made in different parts of the world. From Algeria’s Tassili N’ajjer cave paintings to China’s Terracotta Army, students will look and think about the impact of art on its world. The course will provide analytical tools and historical information that will allow students to think intelligently about objects not covered in class. In addition to discussion-based class meetings, we will make use of the vast resources of New York City through required trips to museums, buildings, and monuments.

**ARTV 217 - Art History: Contemporary Art**
*One-half credit, meets every other day*
**Prerequisites:** None
**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 Beyoncé, Edouard Manet, Claude Monet, Barbara Kruger, Faith Ringgold, Basquiat, 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.

**ARTV 219 - Art History: Global Architecture**
*One-half credit, meets every other day*
**Prerequisites:** None
**Appreciation**
This course is designed to provide a foundational knowledge of global architecture, both sacred and secular. Ultimately, students will be able to think critically about why buildings appear as they do, and even have opportunities to design their own dream structures. The first semester is titled Sacred Spaces. Students will discuss various belief systems from around the globe and learn about architectural forms built to support/further/facilitate rituals for those beliefs. Students will
be exposed to architectural forms from around the world, thinking critically, for instance, about why a Hindu temple appears and is experienced differently from a Christian basilica. The second semester is called Modernism, Materials, and Machines. During this half of the year students will explore the changes that nineteenth century building materials created in architectural forms. They will consider the use of iron, steel, and glass, and move through the modern world of architecture to the machine age. Finally, students will study contemporary architecture and the use of computers to plan structures that cease to look inhabitable or functional and yet are built.

400-level courses:

**ARTV 401 - AP Art History**  
*Open to seniors only in 2020-21  
*Full Credit, meets 5 days/week  
*Prerequisites: Departmental approval  
*Appreciation*  
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 based on the standards set by the College Board in preparation for the Art History AP test. 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. Open to seniors only in 2020-21.

**ARTV 415 - Art History: What is a Masterpiece?**  
*Full credit, meets 4 days per week  
*Prerequisites: Departmental approval  
*Grades 11-12  
*Appreciation*  
This course will ask students to think deeply and critically about a limited number of objects, privileging depth over breadth. We will focus on approximately 30 objects during the course of the year, each of which will allow students to think critically about works of art beyond the curriculum. This course will encourage students to think
about and engage in critical discussion of the visual arts while attempting to define what qualifies as a "masterpiece". We will discuss the perceived differences between “high” and “low” art and between craft and concept. We will look at work as disparate as contemporary music videos and ancient cave paintings. This advanced curriculum will challenge students’ conceptions of “genius” and introduce them to a wide range of possibilities of artistic expressions, to which the response may or may not be universal. Open to 11th/12th graders.

**ARTV 420 - Studies in Art History: Imagination and Fantasy in Global Art**

*One-half credit, meets every other day*

**Prerequisites:** 200 or 300-level art history class and/or departmental approval.

**Appreciation**

The terms “Imagination” and “Fantasy” have historical connotations and contemporary implications. Students will get to explore works of art of their choosing, and considering how the terms we use to describe certain objects impact our history. This is a topics-based course for students advanced in their art historical knowledge. We will explore works of art formally as well as through various theoretical and historical lenses. Works discussed will span historical periods and geographies, allowing us to balance formal qualities with contexts of creation, while thinking about the universality of art. Open to 11th/12th graders.

**COURSES NOT OFFERED IN 2020-21**

**ARTV 218 - Art History: Renaissance Art**

*[Not offered in 2020-21]*

*One-half credit, meets every other day*

**Prerequisites:** None

**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 and consider their impact on art and philosophies across the world. Architecture and museum assignments are a vital and exciting portion of this course.
**ARTV 316 - Art History: The Power of Images**  
**[Not offered in 2020-21]**  
One-half credit, meets every other day  
Prerequisites: Open to all 11th/12th graders and 10th graders who have taken a 200-level Art History course.  
**Appreciation**  
The Parthenon, Snap stories, Egyptian Pyramids, Instagram filters, the Mona Lisa, Beyoncé music videos; all seemingly different objects, yet all comprise our visual world. We are all both makers and consumers of images, yet very few of us learn visual literacy, and how to navigate the world of art. This course will explore the subconscious ways we are manipulated by images, how the history of art informs our understanding of the world, and how we can be more aware, critical, and in charge of our visual experience. This course is organized by theme rather than chronology, thus encouraging students to make visual connections beyond the boundaries of geography and time. This course teaches students both techniques of art historical analysis and urges a meta look at the discipline itself.

**ARTV 421S - Directed Study in Art History**  
**[Not offered in 2020-21]**  
Full credit, meets 4 days per week.  
Prerequisites: 200 or 300-level art history class and/or departmental approval.  
**Appreciation**  
This is a topics-based course for students advanced in their art historical knowledge. Students will explore works of art chosen by them through various theoretical and historical lenses. Works discussed will span historical periods and geographies, allowing us to balance formal qualities with contexts of creation, while thinking about the universality of art. This is a rigorous seminar course. Open to 11th and 12th graders.
Studio Art

CERAMICS

200-level courses:

ARTV 210- Ceramics 1: Introduction to Ceramics
One-half credit, meets every other day
Prerequisites: None
Studio/Performance
This course is a beginning level adventure in utilizing clay as a fine art medium. Basic clay forming techniques will be explored, including pinch, coil, slab construction, and the potter’s wheel. Students learn the basics of using clay as a vehicle for self-expression, focusing on utilitarian and sculptural forms. Students acquire the basic skills and technical knowledge needed to gain an understanding of the nature of working in the ceramics medium.

ARTV 220 - Ceramics 2: The Pottery Wheel
One-half credit, meets every other day
Prerequisites: Ceramics 1 or departmental approval.
Studio/Performance
This course is an exploration of the potter’s wheel as a means to form utilitarian and sculptural ceramic vessels. Students build upon their knowledge and skills from “Introduction to Ceramics,” while advancing their wheel throwing abilities by designing and creating wheel thrown cylinders, bowls, mugs, vases and pitchers. Reduction glazes, slips, and other decoration techniques are explored. This course focuses on technique and skill-building while leaving room for your own creative input.

300-level courses:

ARTV 310 - Ceramics 3: Complex Forms and Surfaces
One-half credit, meets every other day
Prerequisites: Ceramics 1 and 2 or departmental approval.
Studio/Performance
The sequel to “The Pottery Wheel” leads students through a series of challenging assignments that advances their expertise on the pottery wheel while expanding their concept of ceramic art. Design and creation of pots for daily use will be explored, including lidded jars, plates and teapots, along with exploring vessels and sculptures constructed from wheel thrown parts. Advanced glazing and firing techniques will also be explored.
ARTV 320 - Ceramics 4: Building a Body of Work  
One-half credit, meets every other day  
Prerequisites: Ceramics 3 or departmental approval.  
Studio/Performance  
Students work towards creating a cohesive body of ceramic artwork. Working on an independent basis, students develop their personal ideas and vision as ceramic artists. Creative problem solving and self-expression are paramount as students explore new techniques and concepts and create a portfolio of ceramics artwork. Each student’s body of work will be the subject of group discussions and exhibitions throughout the school year.  

400-level Courses:  

ARTV 410S - Ceramics 5: Directed Study in Ceramics  
Full credit, meets 4 days/week  
Prerequisites: Ceramics 3 or departmental approval.  
Studio/Performance  
Students will work towards creating a cohesive body of ceramic artwork. Working on an independent basis, students will develop their personal ideas and vision as ceramic artists. Creative problem solving and self-expression are paramount as students explore new techniques and concepts and create a portfolio of ceramics artwork. Each student’s body of work will be the subject of group discussions and exhibitions throughout the school year. As a full credit visual arts course, Ceramics 5 requires a level of engagement and commitment beyond the expectations of Ceramics 4: Building a Body of Work.  

DRAWING AND PAINTING  

200-level courses:  

ARTV 211 - Drawing & Painting 1: Conventions of Representation and Personal Exploration  
One-half credit, meets every other day  
Prerequisites: None  
Studio/Performance  
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 even wind.

**ARTV 221 - Drawing & Painting 2: Naturalism, Abstraction, and Imagination**

One-half credit, meets every other day  
Prerequisites: Drawing & Painting 1  

Studio/Performance  
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 create artwork that illustrates and enhances the ideas covered in class. Attention to artistic scholarship, fine craft and skill development is emphasized. 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.

**300-level Courses:**

**ARTV 311 - Drawing & Painting 3: Structures of Form and Idea**

One-half credit, meets every other day  
Prerequisites: Drawing and Painting 1 and Drawing and Painting 2 or departmental approval.

Studio/Performance  
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 college-level mastery.

**ARTV 321 - Drawing & Painting 4: Portfolio Themes and Personal Invention**

One-half credit, meets every other day  
Prerequisites: Drawing & Painting 3 or departmental approval.

Drawing and Painting 4 allows the advanced student to continue working on personal vision projects. The instructor is 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 shares the work on a regular basis with other classes working in the same discipline. The personal projects are shown as
part of the end-of-the-year show, and are also eligible for application to juried shows during the year.

**400-level Courses:**

**ARTV 403 - AP Studio Art: Drawing and Painting**
Open to seniors only in 2020-21  
*Full Credit, meets 5 days/week*  
*Prerequisites: Drawing and Painting 3 or departmental approval.*  
*Studio/Performance*

The AP Studio course prepares students to complete portfolios for submission to the College Board. It is comprised of a Concentration or group of 12 themed works, a Breadth section, or group of 12 works in a variety of different approaches, and a Quality section of five works that demonstrate sustained focus.

**ARTV 411S - Drawing and Painting 5: Directed Study in Drawing and Painting**
*Full credit, meets 5 days/week*  
*Prerequisites: Drawing and Painting 3 or departmental approval.*  
*Studio/Performance*

This is a full credit course that affords the most advanced students more time to develop and implement personal vision projects. The instructor is available for advice and technical help in the realization of this vision; however, the student is responsible for the design of most of the projects undertaken. Inventive explorations might include portfolio development, murals, or use of unexpected materials and techniques. The personal projects are shown as part of the end-of-the-year show; and are also eligible for application to juried shows during the year.

**PHOTOGRAPHY**

**200-level courses:**

**ARTV 214 - Photography 1: Understanding Light and Composition**
*One-half credit, meets every other day*  
*Prerequisites: None*  
*Studio/Performance*

Photography 1 is an introductory photography course in which students learn the fundamentals of composition, capturing light, and experimenting with innovative approaches to image-making. Both 35mm SLR and digital cameras are introduced throughout the year.
Students learn to roll, develop, and print traditional black & white film along with photo editing software such as Capture One, Lightroom, and Photoshop.

**ARTV 224 - Photography 2: All About Color**  
*One-half credit, meets every other day*  
**Prerequisites:** Photography 1  
**Studio/Performance**  
Photography 2 is an intermediate photo course that focuses on color theory, as applied in digital and color film. An emphasis is placed on portraiture both in the studio and in the field. Students learn how to connect with their subjects as they shape available light and experiment with various studio setups. Workshops in the digital lab include portrait retouching, compositing, negative scanning, and digital printing.

**300-level courses:**

**ARTV 314 - Photography 3: Medium Format**  
*One-half credit, meets every other day*  
**Prerequisites:** Photography 1 & 2 or departmental approval.  
**Studio/Performance**  
Photography 3 is an advanced class for capable photographers. In this course, students become art directors and art dealers as we explore the worlds of fine art and commercial image-making. Students work in teams to produce cover fashion stories and travel in groups to shoot street photography around New York City. The medium format is introduced through cityscape/landscape and studio photography. Additional camera and alternative processing assignments include polaroid photography, cyanotypes, and salt prints.

**ARTV 324 - Photography 4: Visual Language**  
*One-half credit, meets every other day*  
**Prerequisites:** Photography 1, 2, & 3 or departmental approval.  
**Studio/Performance**  
Photography 4 is an advanced photo course designed to help students define their visual languages as they pull from their life experiences to create original content. Projects can include large-scale collage work, an advertising campaign, double exposure using 35mm film, portraits using the 4x5 view camera, a time capsule, and lomography.
**400-level courses:**

**ARTV 402 - AP Studio Art: Photography**
Open to seniors only in 2020-21  
Full credit, meets 5 days/week  
Prerequisites: Photography 3 or departmental approval.  
Studio/Performance  
AP Photography is an advanced course designed to help students refine their photographic skills and processes. The AP course prepares students to complete portfolios for submission to the College Board.

**ARTV 414S - Photography 5: Directed Study in Photography**
Full credit, meets 4 days/week  
Prerequisites: Photography 3 or departmental approval.  
Studio/Performance  
Photography 5 is an advanced photography course in which students spend the year focused on creating a cohesive body of work, with the final project being a bound book of their work. An emphasis is placed on theme, visual storytelling, editing, and design.

**PRINTMAKING**

**200-level courses:**

**ARTV 213 - Printmaking 1: Intro to Printmaking**  
One-half credit, meets every other day  
Prerequisites: None  
Studio/Performance  
Printmaking 1 is an introduction to the wide range of printmaking techniques. Students will explore basic techniques including paper marbling, rubbings, monoprints, linoleum carving, silkscreen, and etching. Each printmaking method will explore a different approach to image making both visually and thematically. From delicate prints on rice paper, to posters, and t-shirts, printmaking is an exciting way to explore creating multiples. Whether each print is exactly the same or completely different is up to you!

**ARTV 223 - Printmaking 2: Experimental Printmaking**  
One-half credit, meets every other day  
Prerequisites: Printmaking 1  
Studio/Performance  
Printmaking 2 will develop further upon printmaking methods learned in Printmaking 1 as well as introducing new techniques such as printing
with multiple blocks/layers, copper etching and laser etching. Students will try combining different processes, expanding upon the print to explore how they can navigate into different art forms such as sculpture and installation. There will be a focus on creating prints with a personal message or meaning.

300-level courses:

**ARTV 313 - Printmaking 3: Themes and Variations**  
*One-half credit, meets every other day*  
*Prerequisites: Printmaking 1 and 2 or departmental approval.*  
*Studio/Performance*  
Printmaking 3 will allow advanced students to develop upon their printmaking practice to create a series of works based on a theme. Students will be able to explore printmaking methods of their choice. They may choose to combine methods to create their own style as well as branch out from the print to incorporate unconventional materials/processes. Students are encouraged to explore their ideas more deeply in a series and to write personal statements about their work.

400-level courses:

**ARTV 422S – Printmaking 4: Directed Study in Printmaking**  
*One-half credit, meets every other day*  
*Prerequisites: Printmaking 3 and departmental approval.*  
*Studio/Performance*  
Directed Study in Printmaking allows advanced students to create projects from their personal vision. Students will independently devise their concepts and be able to use class as studio time to create their work. The class will come together to give one another feedback throughout the process, from brainstorming to in progress and final critiques. The instructor will be available for advice and technical help of their vision.
SCULPTURE

200-level courses:

**ARTV 212 - Sculpture 1 - Intro to Sculpture in Multimedia**

*One-half credit, meets every other day*

*Prerequisites: None*

*Studio/Performance*

Sculpture 1 is an introduction to fundamental sculpture materials and techniques. Students will be working with their hand to mold, cast, carve, and assemble a variety of materials such as wood, metal, wire, plaster, and cardboard. Traditional techniques as well as experimental processes will be explored to learn how to manipulate form and space as well as develop strong problem solving skills through the process.

**ARTV 222 - Sculpture 2 - Textiles and Soft Media**

*One-half credit, meets every other day*

*Prerequisites: Sculpture 1*

*Studio/Performance*

Sculpture 2 is a further study into three dimensional materials, with a focus on exploring textiles and soft materials as sculptural media. Students will develop skills in hand sewing, embroidery, machine sewing, screenprinting on fabric to create soft sculptures. Materials and processes from Sculpture 1 will be incorporated and built upon to create artwork with a wider range of media and forms of expression. Concepts of traditional practices, space, fashion and community will be explored.

300-level courses:

**ARTV 312 - Sculpture 3: Hard Media**

*One-half credit, meets every other day*

*Prerequisites: Sculpture 1 and Sculpture 2 or departmental approval.*

*Studio/Performance*

Sculpture 3 students will expand upon materials and techniques learned in Sculpture 1 and Sculpture 2 to have more independence in determining and combining different materials for their projects. New media such as light, sound, video, and space will also be introduced. There will be a stronger focus on incorporating concepts and purposeful selection of materials to create personal meaning/message through sculpture.
ARTV 322 - Sculpture 4: Contemporary Sculpture and Installation
One-half credit, meets every other day
Prerequisites: Sculpture 3 or departmental approval.
Studio/Performance
Sculpture 4 will introduce concepts and materials from contemporary sculpture and installation art. Ideas of how art can occupy/alter spaces to create experiential artwork as well as how art can be performative/interactive, will be explored. Students will collaborate in developing concepts as well as creating physical artwork to bring contemporary sculpture and installation to spaces around HM.

400-level courses:

ARTV 412S - Sculpture 5: Directed Study in Sculpture
Full credit, meets 4 days/week
Prerequisites: Sculpture 4 or departmental approval.
Studio/Performance
Sculpture 5 allows advanced students to create projects from their personal vision. Students will independently devise their concepts and be able to use class as studio time to create their work. The class will come together to give one another feedback throughout the process, from brainstorming to in progress and final critiques. The instructor will be available for advice and technical help of their vision.

FILMMAKING

200-level courses:

ARTV 215 - Filmmaking 1: The Art of Visual Storytelling
One-half credit, meets every other day
Prerequisites: None
Studio/Performance
Filmmaking 1 is an introductory course in digital cinema production. Students learn camera, audio, and lighting techniques, along with the editing software, Adobe Premiere Pro. Workshops in screenwriting, storyboarding, shooting, and editing help students learn the art of visual storytelling in a time-based medium. Projects explore narrative, documentary, and experimental genres. Students work both individually and in crews. This course requires no previous knowledge or skills in the medium.
ARTV 225 - Filmmaking 2: Field and Studio Production
One-half credit, meets every other day
Prerequisites: Filmmaking 1 or the Horace Mann Summer Film Institute or departmental approval.
Studio/Performance
Filmmaking 2 dives more deeply into both individual field production and collaborative studio shoots. Students learn how to participate in all roles of a film crew, including but not limited to directing, lighting, camera operating, boom pole operating, slating, and production coordinating. Specialty equipment such as gimbals and dollies are introduced and utilized in order to support more advanced camera movements and cinematic styles. Students collaborate with actors and sound designers to turn the HM campus into a film set.

300-level courses:

ARTV 315 - Filmmaking 3: Creating the Short Film
One-half credit, meets every other day
Prerequisites: Filmmaking 2 or departmental approval. Horace Mann Summer Film Institute is equivalent to 1 year of Filmmaking.
Studio/Performance
This intermediate-to-advanced filmmaking course builds upon the conceptual, artistic, and technical skills learned in Filmmaking 1 & 2. We continue to explore film language through workshops such as Directing the Actor, Genre Lighting Techniques, Production Sound, Color Grading, and Audio/Visual Effects. Students practice on-set communication protocols as they work together in teams. Advanced editing workshops include units on Live Editing, Parallel Action Sequences, Jump Cuts, Radio Edits, and Experiments in Tone and Music.

ARTV 325 - Filmmaking 4: Advanced Filmmakers Workshop
One-half credit, meets every other day
Prerequisites: Filmmaking 3, or departmental approval. Horace Mann Summer Film Institute is equivalent to 1 year of Filmmaking.
Studio/Performance
Filmmaking 4 students work on largely self-directed films throughout the year and come together during class time to support each other’s visions by providing feedback and sharing resources. Students practice The Art of the Pitch as they describe the themes, plotlines, genres, and logistics of their film ideas to their classmates. Advanced workshops focus on Shot Language, Mise-en-Scène, Production Design, Creating Shooting Schedules and Call Sheets, and Multi-Track Editing.
Computer Science & Robotics

Requirements:

One-half credit course in grades 9-12

Courses Offered in 2020-21

Half credit courses
- Programming in Python (CMPR 210)
- Programming in Java (CMPR 211)
- Introduction to Engineering and Robotics (CMPR 215)
- Mobile Apps (CMPR 310)
- Computer Science 2 (CMPR 315)
- Software Engineering (CMPR 411S)

Full credit courses
- AP Computer Science A (CMPR 401)
- Art of Data (CMPR 410)
Computer Science & Robotics

At a time when technology in the modern world is rapidly evolving, the curriculum in the Department of Computer Science & Robotics fosters the technical proficiency that will enable our students to use and produce applications effectively. To this purpose, the sequence of courses is continuously adapted in accordance with current advances in technology. The primary focus of the curriculum remains the development of skills and habits of thought that will enable our students to put forth theory and application in an effective, precise, and ethical manner. Students will be able to experience an introduction to the intellectual enterprises of computer science and the art of programming.

The Department of Computer Science & Robotics offers a range of introductory and advanced opportunities in the field of computer technology. These courses cover topics including web design, programming, robotics and engineering.

Requirements:
One-half credit course in grades nine through twelve.

200-level courses:

**CMPR 210 - Programming in Python**
One-half credit, meets every other day
Prerequisites: None
In this introductory-level course, students will create computational artifacts using the programming language of Python. An artifact might be creating a computer program, designing a website or prototyping a new gadget. The student becomes the producer by studying the insides of the computer from hardware to software. Students will explore how they interact with technology including both the physical buttons and icons they press and the societal and ethical implications of their actions. The fundamentals of Computer Science takes you beyond being just a user of technology. Topics will include exposure to programming principles, data representation, and engineering tasks through physical computing. This course is appropriate for students who have no previous programming experience.

**CMPR 211 - Programming in Java**
One-half credit, meets every other day
Prerequisites: Prior programming experience, departmental approval. In this introductory-level course, students will create computational
artifacts using the programming language of Java. An artifact might be creating a computer program, designing a website or prototyping a new gadget. The student becomes the producer by studying the insides of the computer from hardware to software. Students will explore how they interact with technology including both the physical buttons and icons they press and the societal and ethical implications of their actions. The fundamentals of Computer Science takes you beyond being just a user of technology. Topics will include exposure to programming principles, data representation, and engineering tasks through physical computing.

**CMPR 215 - Introduction to Engineering and Robotics**

*One-half credit, meets every other day*

*Prerequisites: Departmental approval for 9th graders.*

This course encourages creativity and celebrates ingenious solutions to engineering and mechanical problems through design and construction of purpose-built computer devices and robots. Students in this course will utilize the facilities of our Robotics Innovations Lab, where they will learn to apply research design, construction, programming, and electronics.

This course would be an appropriate entry point for a ninth grader interested in joining the robotics team. The team participates in regional and national competitions such as F.I.R.S.T. (For Inspiration and Recognition of Science and Technology).

**300-level courses:**

**CMPR 310 - Mobile App Development**

*One-half credit, meets every other day*

*Prerequisites: Introductory level Computer Science course.*

The Mobile App Development course will give students practical experience with the tools, techniques, and concepts needed to build basic mobile apps from the ground up. This is a project-based course that will allow students to further explore programming fundamentals.

**CMPR 315 - Computer Science 2**

*One-half credit, meets every other day*

*Prerequisites: Introductory level Computer Science course.*

What is a computer? How is computer science useful? In CS2, not only will students learn the basics of computer programming, they will also get a better sense of where computer science can fit into their lives. Students will read articles about computer science trends and use computer science to problem-solve issues they’ve come across. They will learn how to write Java programs from scratch, in addition
to using the Greenfoot library. Topics include using the terminal, object-oriented programming, boolean algebra, control structures, and human-centered design.

400-level courses:

**CMPR 401 - AP Computer Science A**
Open to seniors only in 2020-21
*Full credit, meets 5 days/week*
*Prerequisites: Computer Science 2 and departmental approval.*
AP Computer Science prepares students for the College Board Computer Science A exam, and in addition teaches content consistent with most college and university courses. The course focuses on more complex studies of algorithms and data structures including linked lists, sets, maps, queues, stacks, trees, and hash tables. Seminar topics are discussed and debated on current issues of Big Data and Computer Ethics. The course is taught using the Java programming language. Students are required to take the AP exam at the end of the year.

**CMPR 410 - Art of Data**
*Full credit, meets 4 days/week*
*Prerequisites: B+ or higher in Computer Science 2 and departmental approval.*
The Art of Data course is designed to provide students with a Computer Science lens to think about data. Students will be better equipped to approach, investigate, and present their findings of datasets. This course focuses on how code can be used to analyze data, with an emphasis on the artistic and interpretative aspects of this process. It is not enough to look only at the numbers; it is crucial that students also gain an appreciation of the intricacies of the domains that datasets can come from. Students will finish the course with a comprehensive portfolio of resources and projects that they can present and refer back to.

**CMPR 411S - Software Engineering**
*One-half credit, meets every other day*
*Prerequisites: A grade of B+ or higher in a full credit Computer Science course, department approval.*
The Software Engineering course will immerse students in the process of creating software and highlight how the field is one that walks a fine line between the creative and scientific. Students will engage in the study of building, designing, developing, maintaining and retiring software. In addition, students will learn how to visualize a product, explain their design to those with far less technical skill, and then work as a team to create the requested product. Students will engage in a year-long project, whose field of study will vary from year to year.
COURSES NOT OFFERED IN 2020-21

CMPR 412S - Computer Science and Engineering Seminar
[Course not offered 2020-2021]
Full credit, meets 4 days/week
Prerequisites: A- or higher in a full credit Computer Science course and departmental approval.
A or higher in the Intro to Engineering course and departmental approval for the 2020-2021 school year for students interested in Engineering studies.
The Computer Science and Engineering Seminar course is designed to provide students with the opportunity to engage with complex topics and apply them in practical applications. This course will emphasize the importance of the collaboration and combination of both the software and hardware components of any technological project. Students, no matter their interest, will complete the course with respect for both Computer Science and Engineering, and a stronger understanding of how both work together to advance technology. The Computer Science topics and the Engineering topics will vary from year to year.
Counseling & Guidance

Requirements:

Grade 9       HMO (GUID 110)

Elective Courses in 2020-21

- Introduction to Psychology (PSYC 310)
- Ethics in School and Society (GUID 311)
- AP Psychology (PSYC 401)
100-level courses:

**GUID 110 - Horace Mann Orientation**
*9th grade requirement, meets 1 day/week*
*Prerequisites: None*

HMO is a 10-week, discussion-based course for 9th grade students in the 1st semester. Co-taught by HM faculty members and 11th and 12th grade HMO Peer Leaders, this course supports 9th grade students in their adjustment to the Upper Division. It fosters connections between 9th grade students and their 11th and 12th grade Peer Leaders, who share information about important resources and support systems within the school, HM clubs & publications, service learning, athletics, study skills, and the balance between academics, social interests and extracurricular activities. Students engage in discussions about HM community norms and about what it means to be a responsible member of an inclusive community. HMO teachers include grade-level deans and faculty from various departments, including the Department of Counseling & Guidance.

300-level courses:

**PSYC 310 - Introduction to Psychology**
*Full credit, meets 4 days/week*
*Prerequisites: None*

This year-long course is a survey of the field of psychology, including the theories, research, and applications central to the discipline. The goal of the class is to engage students in exploration of the science of psychology and applications to everyday life. Psychology offers the opportunity to better understand our own and others’ thoughts, feelings, and behaviors by viewing the human experience from multiple perspectives. Chapters covered include: history of psychology, research methods, biological bases of behavior, sleep and consciousness, human development, motivation and emotion, memory and learning, social psychology, psychopathology, and clinical treatment. Topics will be studied through discussion, film, media, collaborative and creative projects, readings, and lecture. Papers and projects challenge students to apply theories to analyze their own lives, fictional characters, and current events. An extra credit opportunity offered each semester allows students to pursue their own interests in greater depth.

**GUID 311 - Ethics in School and Society**
*Full Credit, meets 4 days/week*
*Prerequisites: None*

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 full credit 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.

400-level courses:

**PSYC 401 - AP Psychology**
Open to seniors only in 2020-21
Full credit, meets 5 days/week
Prerequisites: Introduction to Psychology, Departmental approval required
This course builds upon Introduction to Psychology by examining more complex psychological concepts at a college level. Students will continue to study various psychological orientations, research methods and statistics, neuroscience, development, memory and cognition, abnormal psychology and therapeutic approaches, and social psychology. In addition, this course presents new topics not covered in the introductory class including multicultural psychology, career guidance, stress and health, and psychology of intimate relationships. A strong emphasis is placed on understanding and conducting research, with an independent research study on a topic of students’ choice. Students are required to take the AP Psychology exam at the end of the course.

**COURSES NOT OFFERED IN 2020-21**

**PSYC 410 – Psychology 2: Biological, Clinical, Developmental, and Social Psychology**
[Course not offered 2020-2021]
Full credit, meets 4 days/week
Prerequisites: Introduction to Psychology, departmental approval.
This course builds upon Introduction to Psychology by examining more complex psychological concepts at the college level in 4
subfields: biological, clinical, developmental and social psychology. Students will continue to explore the dominant psychological orientations and research methodology, with an emphasis on applying knowledge and skills to analyze case studies and real-world problems. Students will have the opportunity to pursue their own questions and interests by conducting small scale individual and group research studies. Topics will also be studied through discussion, debate, video and audio presentation, along with readings and lectures. The overarching goals of the course are to build upon students’ interests in the field, enhance self-awareness and sensitivity to individual differences, and prepare them for more advanced coursework in psychology in higher education.
English

Requirements:
Continuous enrollment in English, grades nine through twelve.

Grade 9        English 9 (ENGL 210)
Grade 10       English 10 (ENGL 220)
Grade 11       English 11 (ENGL 310)
Grade 12
   □ Senior Electives (ENGL 320)
   □ The New Community Project (ENGL 330)
   □ AP English (ENGL 401)
   □ Seminar in Literary Studies (ENGL 410)
Horace Mann’s Department of English trains students to be strong 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. Such an approach also fosters our students’ ability to empathize with, and truly listen to, a diversity of voices beyond their own. Furthermore, the department’s continuing partnership with the Royal Shakespeare Company offers students opportunities each year to engage in rehearsal room techniques that revitalize their understanding of the ways in which their own lived experiences are intrinsically connected to human lives from across the centuries.

Grades nine, ten, and eleven have set curricula with specific texts determined by each teacher. Senior electives, including intensive one-semester and year-long courses carefully designed by faculty, culminate the study of English at Horace Mann. In addition, we offer one section of English AP. Admission is highly competitive.

Requirements:
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 prose fiction. In their senior year, students take semester 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 curricula at each grade level and for each literary genre, with an eye to including a diversity of literary voices from a broad range of traditions, time periods, and cultures. This approach not only expands students’ awareness of literature’s multifarious scope, but also helps students identify key connections between complex, seemingly disparate works.
In past years, students have studied Shakespeare’s *The Tempest* alongside Aime Cesaire’s *A Tempest*, *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 multifarious approaches to human phenomena across different literary traditions. Such exposure to multiple traditions, we believe, presents students with numerous ways of defining and engaging with a literary canon.

**ENGL 210 - English 9**
*Full credit, meets 4 days/week*
*Prerequisites: None*

All ninth graders begin their work in English with a structured writing unit that serves to welcome them into the vigor and vivacity of the English language. Students write every day, in class and at home, and in a variety of styles, ranging from dramatic dialogues to lyric poems, and from microfictions to longer personal narratives. Daily writing is accompanied by daily feedback. We teach writing as a continual process, one that is always “in progress.” The writing unit is ungraded—taken pass/fail—a practice which allows us both to keep the focus on the students’ work and the teacher’s feedback, and to offer students space for risk-taking and experimentation with writing and revision. The rest of the year involves the close reading and analysis of literary texts—*Frankenstein*, *Annie John*, *Purple Hibiscus*, and *Julius Caesar* are but a few examples—and the study of grammar.

**ENGL 220 - English 10**
*Full credit, meets 4 days/week*
*Prerequisites: English 9*

Students in tenth grade continue their literary studies in courses designed by their teacher. Tenth graders experience greater independence in their engagement with texts, a fact reflected in the kinds of critical and imaginative writing expected of them during their tenth grade year. All tenth grade students study drama, poetry, and prose fiction—typical texts include *Othello*, *The Great Gatsby*, *The Odyssey*, and *Sing, Unburied, Sing*—and continue our grammar curriculum.

**ENGL 310 - English 11**
*Full credit, meets 4 days/week*
*Prerequisites: English 10*

In English 11, literary study intensifies with extensive units on the major genres, particularly lyric poetry. Additionally, all English 11 students complete a major research paper that brings together skills
they have been working on since the ninth grade: close reading, building from evidence to argument, comparative analysis, and independent critical thinking. Depending on the class, research engages students 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 an extended critical-analytical study of their own from that material.

**ENGL 320 - Senior Electives**

*Full credit, meets 4 days/week*

*Prerequisites: English 11*

With the exception of those students enrolled in our Advanced Placement English course, all seniors take either two semester-long electives, one year-long elective--Seminar in Literary Studies--or The New Community Project course, which combines literary study and analysis with real-world service opportunities. With the permission of the Department, senior electives may be taken by eleventh grade students in addition to English 11.

Students have a good deal of freedom in choosing their electives. The offerings each semester cover a diverse range of literary periods and movements, themes, and genres. Some courses stress expository or analytic writing; others engage students in writing original poems or short stories. The Department varies its electives according to its own evolving interests and to its understanding of the needs of our students.

A sampling of semester-long senior electives recently offered:

- Man’s Search for Meaning
- Literature of Puzzles, Games, and Mysteries
- Psychological Realism: George Eliot and Virginia Woolf
- How to Do Things with Books
- Intro to Translation Studies
- Toni Morrison
- Satire
- Short Masterpieces of Russian Literature
- Shakespeare On Its Feet
- British Romanticism: Visions and Revisions
- Money in American Literature
- Short Fiction: A Writing Workshop
- Emily Dickinson
- Reading Chang-Rae Lee
- Melville’s *Moby Dick*
- Writing Nature, Writing Ourselves
- The Serious Pleasures of Detective Fiction
- The Poetics of Hip-Hop
- Poets of Moment: Billy Collins, Pablo Neruda, and Naomi Shihab Nye
- Americas: Other Voices in American Fiction
ENGL 330 - The New Community Project
Full credit, meets 4 days/week
The New Community Project is a year-long social justice course that uses the study of literature as the foundation for understanding, analyzing, and making meaningful impact for our local communities. Specifically, we will partner with a local non-profit organization that addresses a pressing community need and analyze them as a “living text.” We will ask: **What are our non-profit partner’s passions, motivations, and ambitions?** Who are their main characters? **Who is the antagonist?** In what ways does setting impact the conflict? **Does the story have a clear resolution?** Where do we see the intersectionality of race, class, gender, religion, sexuality etc? We will also read traditional texts (novels, short stories, poetry, films, & songs) with themes that are relevant to our partner. By having “living texts” in conversation with traditional texts, we will practice the language of empathy for the complex human concerns that shape and continue to shape the spaces around us. At the end of this process, we will propose and develop tangible projects that will aid our partner non-profit organization’s mission. In this way, this course hopes to inspire and empower young people to tangibly impact their communities through critical thinking, mindful collaboration, and meaningful action.

ENGL 401 - AP English
Open to seniors only in 2020-21
Full credit, meets 5 days/week
Prerequisites: English 11, departmental approval.
The department offers one section of Advanced Placement. Admission is highly competitive. For consideration, students should have grades in English which average closer to A- than B+, as well as the permission of the department. Applicants must also 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 others. 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 AP English Literature exam.

**ENGL 410 - Seminar in Literary Studies**

*Full credit, meets 4 days/week*

*Prerequisites: English 11, departmental approval.*

Seminar in Literary Studies is a year-long senior elective open to all seniors interested in an intensive study of literature and literary scholarship. SLS is designed with the most inquisitive English student in mind, the reader for whom extended, year-long study of a particular period or genre of literature appears as a thrillingly liberating prospect rather than as a graduation requirement to be satisfied.

Some distinctive aspects of every SLS course include, but are not limited to, the following:

*Year-long immersion in the literary field/s of a teacher's choosing;*
*Four essays (at least two of 5+ pages) and one longer presentation required per semester;*
*Required reading of literary criticism and/or theory.*

**For the 2020-2021 school year, SLS will be offering “LA LA Lit: Los Angeles, California, and the American Imagination.”**
History

Requirements:

Grade 9: Atlantic World History (HIST 210)
Grade 10: United States History (HIST 220)
Grade 11 or 12: Class of 2021: One non-AP elective
               Class of 2022: Students are required to take a third year of History in either grade 11 or 12.

Elective Courses Offered in 2020-21

300-level
☐ Topics in Political Philosophy (HIST 311)
☐ Comparative Race and Ethnicity (HIST 312)
☐ Religion in History (HIST 313)
☐ East Asian History (HIST 314)
☐ History of the Silk Roads (HIST 315)
☐ United States Legal History (HIST 317)
☐ History through the Lens: Movies and American Culture (HIST 318)
☐ Voices of Protest: The Progressives to the Present (HIST 319)
☐ Africa and Asia, 1945 to the present (HIST 325)

400-level
☐ AP European History (HIST 401)
☐ AP United States History (HIST 402)
☐ AP Economics (HIST 403)
☐ Global Environmental History (HIST 420)
☐ The Global Cold War (HIST 421)
☐ Vast Early American History (HIST 422)
☐ Contemporary U.S. History, 1945 to the present (HIST 423)
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: Class of 2021: One non-AP elective

Class of 2022: Students are required to take a third year of History in either grade 11 or 12.

History Department Sequencing

Typical Sequence

Admission to AP History electives is based on the permission of the History Department and the specific criteria listed under each AP course. Rising seniors 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 the non-AP history elective during the student’s junior year. AP History electives are open only to the class of 2021.
**Required Courses**

**HIST 210 - Atlantic World History**  
*Full credit, meets 4 days/week*  
*Prerequisites: None*  
Atlantic history is the study of the world created by the interaction of peoples in Africa, Europe, and the Americas. This course examines 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. Students will complete research and writing assessments during the year.

**HIST 220 - United States History**  
*Full credit, meets 4 days/week*  
*Prerequisites: Atlantic World History*  
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 will complete research and writing assessments during the year.

**Elective Courses**

**HIST 311 - Topics in Political Philosophy**  
*Full credit, meets 4 days/week*  
*Prerequisites: Atlantic World History, US History*  
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.

**HIST 312 - Comparative Race and Ethnicity**

*Full credit, meets 4 days/week*

*Prerequisites: Atlantic World History, US History*

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 consider patterns of race and ethnic relations in heterogeneous societies while adopting a comparative perspective. 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.

**HIST 313 - Religion in History**

*Full credit, meets 4 days/week*

*Prerequisites: Atlantic World History, US History*

Why are we here? And how do we find meaning in life under the looming shadow of mortality? Wrestling with these questions is arguably the basis of what we call religion. This course will examine religious traditions historically, with attention to their substance, origins, development, and context. Among many other themes, we will consider questions of institutionalization, underlying purposes, animating ideas and values, and historical trajectories across time and space. We will
consider how and why traditions purporting to offer timelessness adapt and change with the times. Students will read articles and essays about religion in history as well as foundational religious texts, including (but not limited to) the Hebrew Bible, the New Testament, the Tao Te Ching, and The Qur’an. Through careful study of these texts we will consider both their value as sources of history and as a point of access to human experiences world views, and responses to the human condition likely quite alien to us. Engaging in this work should help us develop our capacities for empathy, imagination, and making sense of the unfamiliar. Finally, having done this work students should come away with a clearer, deeper, and more nuanced understanding of how and why our modern world came to be our modern world and what has been both lost and gained in its forging.

HIST 314 - East Asian History
Full credit, meets 4 days/week
Prerequisites: Atlantic World History, US History
Globalization is a term frequently applied to contemporary China, Korea, and Japan. Why is that? And how does our current focus on the growth of international networks obscure the central role that East Asia has played in the much longer history of globalization? The rise of East Asia’s geopolitical power will very likely be among the most important structural changes of the twenty-first century. To understand this monumental shift, we need to know when it started, how it happened, and why this development was neither inevitable nor unprecedented; after all, East Asia has been a geopolitical center before. Part of our task in this course will be to understand the three regions of East Asia–China, Korea, and Japan–as interconnected cultures with shared social, economic, religious, and political traditions. At the same time, we’ll investigate how each region stood apart from the others, with unique characteristics that flourished inside their borders. We’ll also track continuity and change in East Asia, both before and after contact with Europe and the United States. In our study of the twentieth century, we’ll discuss the wrenching—and often traumatic—impact of World War II, which realigned the status quo and ushered in a period of rapid and startling shifts: the emergence of a communist China and North Korea, a demilitarized Japan, and a democratic South Korea. Students will have multiple opportunities to pursue independent research on topics of their choice, including current events. Students can expect classes in a seminar-style format where active participation is encouraged.
**HIST 315 - History of the Silk Roads**

*Full credit, meets 4 days/week*

*Prerequisites: Atlantic World History, US History*

The Silk Roads, a series of overland trade routes stretching from East Asia to Southern Europe, with tributary routes reaching as far south as Eastern Africa, the Arabian Peninsula, and the Indian subcontinent, were some of the most important trade routes in human history. In this history elective, students will use the Silk Roads as a lens through which we can examine the histories of individual cultures and their connections to broader historical networks. The course is structured around three major historical eras. In the first part of the year, we’ll focus on the Silk Roads in the Classical period, approximately 200 BCE - 600 CE, including not only the Roman Empire and the Han Dynasty but also other major territorial states of the time, such as the Parthians and Scythians, as well as the various pastoralist societies on the margins. In the middle part of the year, we’ll look at the age of the Mongols, approximately 1200-1400. In the spring, we will pick up the story of the Silk Road territories in the modern day. The primary focus of this final part of the course will be modern-day economic development along the old Silk Road routes, including a major focus on China’s Belt and Road Initiative. Throughout the year, students will read both primary and secondary sources, and will engage in a number of independent research projects. Assessments will consist of in-class essays, research papers, and class presentations.

**HIST 317 - United States Legal History**

*Full credit, meets 4 days/week*

*Prerequisites: Atlantic World History, US History*

This course examines the relationship between law and society in the United States. The focus of our study will be the question of how law both shapes, and is shaped by, the political, economic, and cultural context in which it is formed. The course will explore such topics as the creation and enforcement of law, access to and interaction with the legal system, and the changing nature of punishment throughout American history. Through the study of critical court decisions, we will also examine how historical cultural and political forces have contributed to contemporary ideas about civil and constitutional rights. Important topics such as citizenship and the role of law in enforcing social norms related to race, gender, sexuality, and religion will be at the center of our exploration.
**HIST 318 - History Through the Lens: Movies and American Culture**

*Full credit, meets 4 days/week*

*Prerequisites: Atlantic World History, US History*

What would a historian in 2070 say about American society in 2020 based on the year’s top-selling movies, most adapted from comic books or fairy tales? What 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. Rather than a focus on the “art” of movies, the class explores the evolving conversation that movies have with significant historical and cultural themes from early silents to the 1960s and 1970s. After close examination of films and reading in primary and secondary works, students write regular movie responses, longer analytical papers, and do research on topics raised throughout the year.

**HIST 319 - Voices of Protest: The Progressives to the Present**

*Full credit, meets 4 days/week*

*Prerequisites: Atlantic World History, US History*

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 NFL’s kneeling controversy. 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 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 readings and discussions. We will move through the material thematically and chronologically, and address the following six units:

1. Capitalism’s Discontents: from Industrialization to a “Fight for a $15 Minimum Wage”
2. Civil Rights: from the New Negro to “Black Lives Matter”
3. War Protests: from World War I to Drone Warfare
4. Women’s Rights: from Suffragism to #MeToo
5. Gay Rights: from Pre-Stonewall to Trans Activism
6. Environmentalism: from the Disappearing West to #FridaysForFuture
**HIST 325 - Africa and Asia, 1945 to the present**
*Full credit, meets 4 days/week*

Prerequisites: Atlantic World History, US History, departmental approval.

Imperialism, colonialism, and revolution have affected every corner of the modern world. In 9th grade you learned about how these forces affected Europe and the Americas over the last 500 years. What about the rest of the world? This course covers revolution and its aftermath in several African and Asian countries. We’ll look at the history of colonialism and independence from the perspectives of colonized people. The people’s movements for decolonization – largely successful after World War II – resulted in a mixture of political and economic development, radical social ideologies, endemic poverty, and sporadic conflict. We’ll specifically look at the history of these states from cultural (e.g., ethnic, racial, and religious diversity), social (e.g., class structure, education, and economic development), and political (e.g., communism, dictatorship, democracy, and war) perspectives. And our story will come right up to the present day.

Students will engage with theoretical approaches to imperialism and colonialism, the psychology of colonialism, and patterns of decolonization and postcolonial development, all while broadening global perspectives and challenging engrained stereotypes. Beyond the history, our goal is to increase cultural competency and to develop and appreciation for global citizenship.

**HIST 401 - AP European History**
*Open to seniors only in 2020-21*
*Full credit, meets 5 days/week*

Prerequisites: Atlantic World History, US History, departmental approval (see below).

AP European History covers the social, political, 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. Looking carefully at historiographical trends (Annales, gender, political culture) will thus comprise a significant aspect of the course. Students will develop their research and presentation skills through a variety of 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, papers, and reading responses. We will prepare for the AP exam thoroughly, but test preparation is not the main focus of the course. Rather, we will seek to develop a rich and
robust understanding of Europe in the modern period. This history was fraught with contradiction and conflict, while at the same time reflected the courage and ingenuity of talented individuals. In addition to our historiographical work, we'll establish a broad familiarity with the artists, writers, and thinkers of the modern era. The classes are conducted in a seminar-style format, so active class participation is both encouraged and expected.

**HIST 402 - AP United States History**
*Open to seniors only in 2020-21*
*Full credit, meets 5 days/week*
*Prerequisites: Atlantic World History, US History, departmental approval (see below).*
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.

**HIST 403 - AP Economics**
*Open to seniors only in 2020-21*
*Full credit, meets 5 days/week*
*Prerequisites: Atlantic World History, US History, departmental approval (see below).*
The focus of this college-level course will center on the exploration of decisions around the allocation of scarce resources. We will explore the consumption and production choices of individuals, households, and firms along with the behavior and functioning of product, resource, and labor markets. We will examine different market systems and how various government interventions impact the function of markets including fiscal and monetary policy, tax policy and the role of incentives, the manipulation of interest rates by the Federal Reserve and other central banks. We will learn about the business cycle, labor, employment, productivity, inflation, and economic growth. The course
explores current economic problems—including the problems of poverty, increasing income inequality, environmental pollution, and resource use (and overuse). World economic development and issues of globalization will also be discussed. The course will address the American Economy and international trade, exchange rates, international development, and globalization. We will also explore public policy questions through an economic lens helping to make you a more informed citizen with greater tools to examine the various economic choices you make everyday and market forces have influenced international choices and quality of life around the world.

HIST 420 - Global Environmental History
Full credit, meets 5 days/week
Prerequisites: Atlantic World History, US History, departmental approval (see below).
Global Environmental History surveys the history of the human relationship with non-human nature, beginning with fire-wielding hunter gatherers and ending with present-day concerns about global climate change and debates about the “Anthropocene era” (the claim that anthropogenic, or human made, climate change constitutes a new geologic era). The course will raise major questions about the human role in changing the environment on a global scale and the environment’s role in shaping human societies and culture. The course is structured around four major turning points in human interaction with non-human nature: the transition to agro-ecology (around 10,000 BCE); the reconnection and exchange between Afro-Eurasia and the Americas (1492 CE and thereafter); the industrial revolution and the fossil fuel economy (~1750 CE and thereafter); and the dawn of the nuclear era (1945 CE and thereafter). Focusing on such themes as agro-ecology, transecological exchange, the role of disease, energy sources and use, urbanization, empire, global conflict, the commodification of nature, climate change, and sustainability, the course emphasizes new global perspectives on environmental history in an effort to investigate the environmental past and help us plan for our shared future. In addition to exploring these themes through current events, simulations of environmental debates where students will take the roles of various stakeholders, other creative assignments like podcasts, and short analytical papers, students will also have the opportunity to explore a topic relevant to the course and of particular interest to the student in a substantial research paper. Students will read scholarly articles, consider how historians seek to understand history through the methodological approaches they take, and how historians share and debate the ways in which they interpret historical developments (also known as historiography).
HIST 421 - The Global Cold War
Full credit, meets 5 days/week
Prerequisites: Atlantic World History, US History, departmental approval (see below).
While the Cold War is often depicted as a struggle between the U.S. and USSR mainly over control of Europe, this course takes into consideration more recent scholarship which argues that the most important centers of conflict and the struggle of ideas occurred in the rest of the world, particularly in Africa, Asia, and the Middle East, just as countries were gaining their independence in the wake of World War II. We will study factors such as decolonization, race, political alliances, diplomacy, the nuclear arms race, espionage, cultural programs, activism by ordinary people, and popular culture, including film, music, and literature. Lastly, the course will weigh political theories that were tested throughout the Cold War, especially capitalism, democracy, non-alignment with the superpowers, socialism, and communism. Current events will help us connect past and present. This course will be run seminar-style. Students will have the opportunity to work collaboratively, make class presentations, conduct historical research, including a year-long research paper, and participate actively in class discussion. Students will read scholarly articles, write a year-long research paper, consider how historians seek to understand history through the methodological approaches they take, and how historians study and interpret history (also known as historiography).

HIST 422 - Vast Early America
Full credit, meets 5 days/week
Prerequisites: Atlantic World History, US History, departmental approval (see below).
Vast Early America reimagines the creation of what will become the United States by taking a continental approach to the study of the past. This course moves beyond the Anglo-centric view of American history that prioritizes the English experience and goes east to west. Colonial America was settled North to South in the French Empire and South to North in the Spanish Empire. Russia settled Alaska and pushed into northern California. All those regions eventually became part of the United States. Vast Early America also includes the Caribbean in its scope. The racial, gender and class power dynamics that we are conscious of today took root in the first centuries of settlement. Vast Early America incorporates Native American history as part of the narrative. Vast Early America offers a new and provocative way of understanding our national story. Students will read scholarly articles, write a year-long research paper, consider how
Historians seek to understand history through the methodological approaches they take, and how historians study and interpret history (also known as historiography).

**HIST 423 - Contemporary U.S. History, 1945 to the present**  
*Full credit, meets 5 days/week*  
*Prerequisites: Atlantic World History, US History, departmental approval (see below).*

This course will examine the major influences on American life from the end of World War II until the present. Drawing on scholarly writings, essays, fiction, music, films, and web sites, students will learn about the major factors that helped make America what it is today, economically, socially, politically, and culturally. We will look at the intersection of politics, culture, and society in recent American history. Topics covered will include Cold War politics and culture, the rise and fall of New Deal liberalism, and social movements on the Right and the Left. Students are expected to complete the course with a sense of how these events shaped the nation and the world in which they live now. Students will explore a topic relevant to the course and of particular interest to the student in a substantial research paper. Students will read scholarly articles, write a year-long research paper, consider how historians seek to understand history through the methodological approaches they take, and how historians study and interpret history (also known as historiography).

- All 400 level History courses have the following prerequisite:  
  (a) Successful completion of history surveys for grades 9 and 10  
  (b) Departmental approval required, 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. All non-AP 400 level courses are open to juniors and seniors only.

**COURSES NOT OFFERED IN 2020-21**

**HIST 310 - Classical World Civilizations**  
*[Course not offered 2020-2021]*  
*Full credit, meets 4 days/week*  
*Prerequisites: Atlantic World History, US History, departmental approval.*

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.

HIST 316 - Latin American History
[Course not offered 2020-2021]
Full credit, meets 4 days/week
Prerequisites: Atlantic World History, US History
The United States and Latin America are, and have always been, intimately connected. With this in mind, this course aims to help students make meaningful connections between their own encounters with Latin American culture and the region’s past, present, and future. This class is structured as a survey course covering historical material from the late 1400’s to the present day, thus linking directly with Horace Mann’s ninth-grade Atlantic World History course. Over the course of two semesters, students will learn about the rise and fall of multiracial colonial empires, the emergence of modern nation states, the rise of popular revolutionary movements, and Latin America’s pivotal role in the global Cold War. Moreover, through in-class discussion and research assignments, students will develop the knowledge and skills necessary to understand historical problems.

HIST 324 - History of the Islamic World
[Course not offered 2020-2021]
Full credit, meets 4 days/week
Prerequisites: Atlantic World History, US History, departmental approval.
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.

HIST 326 - History Research Seminar
[Course not offered 2020-2021]

Full credit, meets 4 days/week

Prerequisites: Atlantic World History, US History, departmental approval.

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.
Independent Study Opportunities

**INTD 320S - Independent Interdisciplinary Research Seminar**

*Full credit, meets every other day*

*Prerequisites: 11th or 12th grade only, approval of IIRS director*

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 two to three times per week for an interdisciplinary seminar.

All participants keep journals in which they record their research. Each semester they must produce projects as evidence of their work, usually a research paper, a literary or artistic work, a scientific experiment, or a performance. The projects’ content determines the form of the final result.

During seminar sessions, students teach each other about the knowledge acquired through their independent work. They also discuss a limited number of common readings.
Interdisciplinary Studies

INTD 110 - Seminar on Identity (SOI)

11th grade requirement, meets 1 day/week
This course is a required, weekly seminar for 11th graders. It provides 11th graders with an opportunity to explore identity development broadly and consider the ways in which their own identities can provide them with the agency to affect positive change in their lives and in their communities. The course examines the relationship between identity and power and how institutionalized systems may advantage some and create inequities for others.

The course aims to develop greater self-awareness, deepen critical analysis of societal constructions, ask challenging questions about identity and power, and strengthen the recognition of the students' own and others' valid lived experiences. Students delve into identity and power as seen through the lens of core cultural identifiers such as gender, religion, race, socio-economic status, etc. Students also have the opportunity to examine the intersections of different social identifiers and power through readings, film screenings, activities, and open dialogue. The Office for Identity, Culture, and Institutional Equity (ICIE) coordinates the curriculum for SOI and seminars are facilitated by UD faculty.

INTD 310 - Identity, Gender and Sexuality

[Course not offered 2020-21]
Half credit, meets every other day
Grades 11-12
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.
Mathematics

Requirements:
One of the following Geometry courses:
- Geometry and Problem Solving (MATH 210)
- Geometry (MATH 211)
- Geometry Honors (MATH 212H)

One of the following Algebra II & Trigonometry courses:
- Algebra II & Trigonometry (MATH 221)
- Algebra II & Trigonometry Honors (MATH 222H)

Elective Courses Offered in 2020-21

300-level
- Precalculus (MATH 310)
- Precalculus A (MATH 311)
- Precalculus Honors (MATH 312H)
- Contemporary Calculus (MATH 320)
- Senior Math Electives (MATH 331)
- Discrete Math (MATH 332)
- Introduction to Statistics and Probability (MATH 333)

400-level
- AP Calculus AB (MATH 401)
- AP Calculus BC Honors (MATH 402H)
- AP Statistics (MATH 403)
- Statistics and Probability (MATH 430)
- Math Seminar (MATH 440S)
Mathematics

In every course we offer, the Mathematics Department strives to convey math as intrinsically interesting, interconnected, and deep. Our hope is that the curriculum will stimulate curiosity in students, and inspire creativity in problem-solving. Each course is designed to develop students’ confidence in their ability to solve problems, and, ultimately, a love of learning. We see learning as collaborative, and we hope to cultivate compassionate communicators and listeners. We hope the students see the utility of math beyond just the classroom, and that the habits of mind we pass on will serve them throughout their lives.

Requirements:
Geometry
Algebra II and Trigonometry
Many of the elective courses and honors courses have special prerequisites. For specific details, please refer to the information that follows each course description under “approval requirements.”
Key: the darker the arrow, the more common the student path between courses.
REQUIRED COURSES (Grades 9 and 10)

**MATH 210 - Geometry and Problem Solving**
Full credit, meets 5 days/week  
Prerequisites: Algebra I  
This geometry course is designed to serve students who have completed an Algebra I course, often the Algebra IB course in our Middle Division, and who need more work with algebra skills and more attention to individual learning needs. Like Geometry, this course conveys an appreciation of geometry as a deductive system and covers the traditional relationships between points, lines, triangles, polygons and circles in the plane. There is an emphasis on problem-solving techniques common to all studies of mathematics. Successful completion of this course leads to enrollment in Algebra II & Trigonometry in the following year.

**MATH 211 - Geometry**
Full credit, meets 4 days/week  
Prerequisites: 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.

**MATH 212H - Geometry Honors**
Full credit, meets 4 days/week  
Prerequisites: Honors Algebra I or Algebra I, departmental approval (see below)  
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.
Approval requirements: Algebra I students interested in Geometry Honors will be considered based on a combination of factors including: teacher recommendation, grades, and performance on a placement test.

**MATH 221 - Algebra II & Trigonometry**
Full credit, meets 4 days/week
*Prerequisites: Geometry or Geometry and Problem Solving*
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 driven by student-lead investigations, facilitated by a graphing calculator and other tools. Skill-building is emphasized as students develop a toolbox of techniques for solving problems. Of equal importance, students encounter open-ended problem-solving in which they learn how to devise their own strategies for tackling non-routine problems.

**MATH 222H - Algebra II & Trigonometry Honors**
*Full credit, meets 4 days/week*
*Prerequisites: Geometry Honors or Geometry, Departmental approval (see below).*
This Honors course covers the topics in Algebra II & Trigonometry in greater depth and serves as a rigorous introduction to higher mathematics. The course begins with abstract set theory and branches off to cover areas of mathematical modeling with functions, geometric and analytic trigonometry, and advanced analytic geometry. 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. Time permitting, we may also cover abstract topics such as cardinality, group and field theory, basic number theory, and non-Euclidean metrics.

Approval requirements: A successful year in Honors Geometry, which for most students is indicated by a year-end grade of a B or higher. Students earning a year-end grade lower than a B in Honors Geometry must have departmental approval. In addition, in the spring, very high performing students in Geometry (211) who have been identified by their teachers as candidates for the jump to this course will be asked to sit for a non-routine problem-solving test to help gauge their readiness. In every case, departmental approval is required.
ELECTIVE COURSES (Grades 11 and 12)

Precalculus Options
The Math Department offers three levels of precalculus to those who have earned at least a C- in Algebra II & Trigonometry (221). Students who wish to continue their study of traditional mathematics should elect to take a precalculus course after Algebra II & Trigonometry (221).

MATH 310 - Precalculus
*Full credit, meets 4 days/week*
**Prerequisites:** Algebra II & Trigonometry
In this course, students will use the skills they've developed in previous math courses to explore strategies for solving challenging, exciting problems. Through real-world examples and modeling, students will learn how math appears in their everyday lives. The course includes a review of trigonometric functions along with a deeper look at their graphs, inverses, and applications. Other topics include sequences, polynomials, combinatorics, probability, exponential growth and decay, and optimization.

MATH 311 - Precalculus A
*Full credit, meets 4 days/week*
**Prerequisites:** Algebra II & Trigonometry, Departmental approval (see below).
In this course students will cover a variety of topics within mathematics. Each topic is rich with interesting problems that inspire curiosity and require creative problem-solving techniques. Specifically, students will study elementary functions, including trigonometric, rational, polynomial, exponential, and logarithmic, both theoretically and through applications. This course also covers sequences and series, combinatorics, and probability.
Approval requirements: A minimum grade of an exact B+ or higher when averaging both semester grades in Algebra II & Trigonometry (211). An exact B+ is a 7 on the 10 point scale.

MATH 312H - Precalculus Honors
*Full credit, meets 4 days/week*
**Prerequisites:** Algebra II & Trigonometry Honors or Algebra II & Trigonometry, Departmental approval (see below).
This course involves a highly theoretical and rigorous approach to precalculus. Topics include vector analysis, modeling with parametric equations, combinatorics and probability, sequences and series, recursion, polar coordinates. Graphing calculators and computer applications are used for exploration.
Approval requirements: A successful year in Algebra II & Trigonometry Honors, which for most students is indicated by a year-end grade of a B or higher. Students earning a year-end grade lower than a B in Algebra II & Trigonometry Honors must have departmental approval. In unique circumstances, students who demonstrate exceptionally high achievement in Algebra II & Trigonometry (221) may be considered for approval for this course.

**MATH 320 - Contemporary Calculus**  
*Full credit, meets 4 days/week*  
*Prerequisites: Precalculus or Precalculus A, departmental approval (see below).*  
This calculus course emphasizes depth and exploration. Technology, such as a 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. Approval requirements: You must earn a C in Precalculus.

**MATH 331 - Senior Math Electives**  
*Full credit, meets 4 days/week*  
*Prerequisites: Any precalculus course*  
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 two distinct semesters, sometimes taught by two different teachers. Topics may change year-to-year, but past offerings are:

*The Analysis of Games:* In this semester course, we 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 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 Discrete Mathematics: This semester course explores topics in discrete mathematics, computational linear algebra, and provides an introduction to approximation theory.

**MATH 332 - Discrete Math**
*Full credit, meets 4 days/week*

**Prerequisites:** Any precalculus or algebra II & trigonometry course, departmental approval (see below).

This course studies both the mathematics required to analyze problems of a discrete nature but does it through its applications to various disciplines outside of pure mathematics. The emphasis will be on developing and analyzing algorithms to model and implement in many areas of study. We will explore modeling problems such as election theory and determining group preferences, methods of comparing the dominance of one person over another in political situations, and fair-division methods, such as apportioning the House of Representatives; various models of population growth, such as invasive species and predator-prey systems; financial modeling of debt and investment; graph theory problems, such as map-coloring, the problem of scheduling, minimum spanning trees, Steiner trees, communication models and the effects of social networking and cliques, as well as the famous traveling salesman problem. No prior knowledge of computer science or programming is required. The emphasis will be on writing and explaining the algorithms we study using plain English. The primary technology used will be pre-existing programs and spreadsheet software. Time permitting, we will also discuss the new and quickly growing area of the geometry of Gerrymandering. Students should expect to work independently and in group settings on problem-sets, giving oral presentations of their work, and completing capstone projects each semester.

**Approval requirements:** For students who have completed a precalculus course: A year-end average of a B- or higher in Precalculus AB or Precalculus BC Honors. A year-end average of an A- or higher in Precalculus. For students who have successfully completed Algebra II & Trigonometry with a year-end average of an A- or higher or Algebra II & Trigonometry Honors with a year-end average of a B+ or higher are approved for this course if taken concurrently with a precalculus course.

**MATH 333 - Introduction to Statistics and Probability**
*Full credit, meets 4 days/week*

**Prerequisites:** Algebra II & Trigonometry (221)

This course is a statistics workshop in which students explore data, combinatorics and probability through activities, lab exercises, discussion and research. This class makes extensive use of dynamic
statistical data analysis software. Additionally, students learn to interpret the various statistical representations that we encounter in our daily lives.

**MATH 401 - AP Calculus AB**

*Full credit, meets 5 days/week*

Prerequisites: Precalculus AB or Precalculus, departmental approval (see below).

AP Calculus AB is a rigorous introduction to calculus. This course covers 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.

Approval requirements: A minimum grade of an exact B+ or higher when averaging both semester grades in Precalculus AB or a minimum grade of an exact A in Precalculus. (An exact B+ is a 7 on the 10 point scale, and an exact A is a 9 on the 10 point scale.) Highly motivated students with a high B in Precalculus AB, or a high A- in Precalculus, may request to take a diagnostic test administered at the end of the school year that may result in approval for this course.

**MATH 402H - AP Calculus BC Honors**

*Full credit, meets 5 days/week*

Prerequisites: Precalculus BC Honors or Precalculus AB, departmental approval (see below).

AP Calculus BC Honors is the culmination of the honors sequence in mathematics. This course is taken in preparation for the AP Calculus BC exam in the Spring. All of the work covered in AP Calculus AB is included in this course. The following additional topics are also covered: special methods of integration, differential equations, infinite series, polar coordinates, arc lengths, and vectors and parametric equations. Two semesters of college calculus credit may be earned from this course.

Approval requirements: A successful year in Precalculus BC Honors, which for most students is indicated by a year-end grade of a B or higher. Students earning a year-end grade lower than a B in Precalculus BC Honors must have departmental approval. In unique circumstances, students who demonstrate exceptionally high achievement in Precalculus AB may be considered for this course. Departmental approval is required.
MATH 403 - AP Statistics  
*Full credit, meets 5 days/week*

**Prerequisites:** Any precalculus course, departmental approval (see below).

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 exam in the Spring, 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.

Approval requirements: Below is the minimum grade required to take AP Statistics from a Precalculus course. The grade is obtained by averaging both semester grades on the 10-point scale. This grade requirement does not include rounding; it must be exact. For instance, an exact B+ is a 7 on the 10-point scale. In Precalculus a minimum of a B+ is required. In Precalculus AB a minimum of a B is required. In Precalculus BC Honors a minimum of a B- is required.

MATH 430 - Statistics and Probability  
*Full credit, meets 5 days/week*

**Prerequisites:** Any precalculus course, departmental approval (see below).

This statistics course is similar to those required for college majors in the social sciences, health sciences, and business. Major concepts such as combinatorics, probability, data collecting, analyzing data, and drawing conclusions from data will be covered. Additionally, students will learn to interpret the various statistical representations that we encounter in our daily lives. Students should expect to learn through activities, lab exercises, discussion, and projects. This class makes extensive use of dynamic statistical data analysis software, such as Fathom.

Approval requirements: Below is the minimum grade required to take Statistics and Probability from an Algebra II & Trigonometry course. The grade is obtained by averaging both semester grades on the 10-point scale. This grade requirement does not include rounding; it must be exact. For instance, an exact B+ is a 7 on the 10-point scale. In Algebra II & Trigonometry (221) a minimum of a A- is required. In Algebra II & Trigonometry Honors (222) a minimum of a B+ is required.

MATH 440S - Math Seminar  
*Full credit, meets 4 days/week*

**Prerequisites:** Precalculus BC Honors or Precalculus AB, departmental approval (see below).

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.

Approval requirements: A demonstrated passion for mathematics, a minimum grade of A- in Precalculus BC Honors and departmental approval required. In certain exceptional circumstances, a student who has completed Precalculus AB may be considered for approval for this course. Students may take Math Seminar and Advanced Placement Calculus concurrently.
Physical Education & Health

Requirements:

Grade 9: Concepts of Physical Fitness/Team and Life Sport, Lifeguarding, Learn to Swim, Health, CPR/First Aid or Dance Workshop for PE credit

Grade 10: Concepts of Physical Fitness/Team and Life Sport, Lifeguarding, Learn to Swim, Health, CPR/First Aid or Dance Workshop/Dance Performance for PE credit or Varsity PE or Out-of-School/Independent Athletic Contracts

Grade 11: Concepts of Physical Fitness/Team and Life Sport, Lifeguarding, Learn to Swim, Health, CPR/First Aid or Dance Workshop/Dance Performance for PE credit or Varsity PE or Out-of-School/Independent Athletic Contracts

Grade 12: Concepts of Physical Fitness/Team and Life Sport, Lifeguarding, Learn to Swim, Health, CPR/First Aid or Dance Workshop/Dance Performance for PE credit or Varsity PE or Out-of-School/Independent Athletic Contracts

Certification in CPR/AED for the Professional Rescuers & Health Care Providers and First Aid is a requirement for graduation.
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 life-saving 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 in 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 grades 9 or 10 and 11 or 12.
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 quarter within the Department of Physical Education. Registration will take place on the first day of scheduled classes each quarter. 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.

PHED 210 - Concepts of Physical Fitness/Team and Life Sport
Meets every other day
Prerequisites: None
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 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.

In the aquatics unit students will be exposed to comprehensive water safety policies, learning safe ways to participate in aquatic activities and recreation. The curriculum includes water safety knowledge, instruction in swimming (learn to swim and skill advancement), fitness swimming, standup paddle-boarding, recreational aquatic games, snorkeling and Boga fit and Boga yoga.

**PHED 212 - Dance Workshop for PE credit**

*Meets every other day*
*Prerequisites: None*
*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
**PHED 313 - Dance Performance for PE credit**

Meets every other day

Prerequisites: Approval of the instructor

Grades 10-12

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 Performance. This course builds upon the foundations established in Dance Workshop and finally places the emphasis on performance. The course culminates in multiple presentations throughout the year.

**Health Education 1**

Meets every other day for one quarter

Prerequisites: None

Grades 9-10

**Health Education 2**

Meets every other day for one quarter

Prerequisites: None

Grades 11-12

The Health Education curriculum provides an interactive forum with students and teachers 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. Health Education includes lectures, research, role-playing, guest speakers, written and oral reports, movies, hands on activities and interactive group discussions. The skills students learn form a basis for exploration in areas such as health and wellness, behavior change, substance use and misuse, sexuality and sexual health, relationships, stress, sleep, mental health, nutrition, and disease risk reduction.

**PHED 211 - Varsity PE**

Meets every other day

Prerequisites: Departmental approval

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.**
Other Options Included in PHED 210 to be selected at PE Orientation

- **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 arises.

- **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 quarter 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 quarter. Athletic contracts can be found on the physical education PowerSchool Learning page. (Not the athletics’ website). **Late submissions will not be accepted!**

- **Lifeguarding**
  
  Students completing this course will be American Red Cross certified lifeguards. Students will learn all facets of the lifeguarding profession including lifeguarding skills to prevent, recognize and respond to aquatic emergencies, risk management, and occupational professionalism. Certification includes CPR/AED/First Aid for the professional rescuer, fulfilling a graduation requirement. This is a 2 quarter class and will be offered contingent on interest.

- **Learn to Swim**
  
  As a part of HM's ongoing effort to achieve 100% swimming competency, students may opt to take a learn to swim class for their P.E. credit. Students will participate in instructional swimming is a small group setting. Curriculum is flexible based upon participant skill level, but will likely include, water acclimation and comforts, front and back floating, kicking skills, freestyle and backstroke, and treading water. Participants work up to being able to complete 100 yards of continuous swimming and 1 minute of treading.
Science

Requirements:
Biology (SCI 210)
Chemistry (SCI 220) or Physics (SCI 311) or Physics Honors (SCI 312H)

Elective Courses Offered in 2020-21:

300-level
- Selected Topics in Physics (SCI 310)
- Physics (SCI 311)
- Physics Honors (SCI 312H)
- Biotechnology (SCI 320)
- Human Anatomy and Physiology (SCI 321)
- Experiments in Physics and Chemistry (SCI 322)
- Science Research 1 (SCI 323)

400-level
- AP Biology (SCI 401)
- AP Environmental Science (SCI 402)
- AP Chemistry (SCI 403)
- AP Physics (SCI 404)
- Biology 2A/2B: Molecular Genetics and Cell Physiology (SCI 410)
- Organic Chemistry and Its Applications in Biochemistry (SCI 420)
- Chemistry 2A/2B: Concepts and Applications (SCI 425)
Science

The Science Department believes (as Carl Sagan said) that science is more than a body of knowledge; it is a way of thinking and of skeptically interrogating the universe. The science curriculum is designed to build an understanding of science by doing science. Students learn to make observations through experiments, and they develop conceptual and analytical reasoning skills by relating observations to theories and by solving problems. We believe students should not only be knowledgeable about the ideas of science, but also have an understanding and appreciation of how we know what we know. Three introductory courses — Biology, Chemistry, and Physics — are taken by most students. These courses provide an overview of the core topics in each discipline, and emphasize developing the scientific literacy that is important for all students. All three introductory courses are required to take any of the college-level (AP) and 400 level electives. A variety of other upper-level electives allows students to explore topics of interest in more depth in both classroom and laboratory settings. In laboratory courses, one of the class meetings each week is a double laboratory period.

Requirements:
Biology
Chemistry, Physics, or Physics Honors

Introductory Courses

SCI 210 - Biology
Full credit, meets 4 days/week, including one double lab period, usually taken in Grade 9.
Prerequisites: None
The course provides a survey of the major areas of inquiry in biology including molecular biology, genetics, physiology, 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.
**SCI 220 - Chemistry**
*Full credit, meets 4 days/week, including one double lab period, usually taken in Grade 10.*
*Prerequisites: None*

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, acid/base chemistry, and electrochemistry. In addition to traditional assessments, students will also complete one research-based project per semester. Both projects will include student collaboration, inquiry, and presentation.

**SCI 311 - Physics**
*Full credit, meets 4 days/week, including one double lab period.*
*Prerequisites: Biology, Chemistry (recommended), usually taken in Grade 11.*

Students who have not completed Algebra II and Trigonometry will require 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.

Physics is an introductory algebra-based course covering Newtonian mechanics, conservation of momentum and energy, electricity and magnetism, waves, and modern physics. This course focuses on developing both a conceptual understanding of the basic principles of physics and problem-solving skills. Weekly laboratory work provides an opportunity for students to explore the concepts learned in class and gain experience designing and conducting experiments.

**SCI 312H - Physics Honors**
*Full credit, meets 5 days/week, including one double lab period.*
*Prerequisites: Biology, Chemistry (recommended), usually taken in Grade 11, departmental approval (see below).*

Physics Honors is an introductory algebra-based college-level physics course. Topics are studied in greater depth than in Physics, and some additional topics, which vary from year to year, are covered. The concepts developed in this course are applied in a broad range of contexts, and the problem solving is designed to encourage creativity and to challenge students’ conceptual and analytical reasoning abilities. Extensive use is made of advanced mathematical methods and students are expected to solve challenging problems with a high
degree of independence. The laboratory work places a greater emphasis on independent work, projects, and computer modeling.

Generally, students need to have earned grades of A- or better in all science and mathematics courses to be considered. All interested students must also complete a placement exercise in May, which is designed to assess the readiness of students for this course. 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 generally give permission for concurrent enrollment in Physics Honors and an AP or a 400 level 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.

**Elective Courses**

**SCI 320 - Biotechnology**

*Full credit, meets 3 days/week, including one double lab period.*

**Prerequisites:** Biology, Chemistry

This is an upper-level course in Biology that introduces students to the cutting-edge techniques used in contemporary molecular biology research. As well as emphasizing hands-on laboratory experience, students are challenged to consider the bioethical issues associated with advancing technology. This course builds on foundational Biology and Chemistry concepts learned in the 9th and 10th grades to further understand the molecular biology behind topics like infectious disease and immunology, antibiotic resistance, genetically modified organisms, advances in cancer biology, and human evolution. Students will learn important techniques in molecular biology including gel electrophoresis, restriction enzyme digests, primer design, DNA amplification by polymerase chain reaction (PCR), nucleic acid extraction and purification, genetic engineering, bacterial/yeast transformations, DNA sequencing, protein isolation, protein purification and visualization, and enzyme-linked immunoassays. Students will plan, conduct, analyze, and write reports or answer lab study questions on their own experiments. Students will also explore the historical, technical, and social issues influenced by advances in biotechnology by writing papers and making presentations to the class on these issues. Through the reading of research papers and discussion, students will explore the historical, technical, and social issues influenced by advances in biotechnology resulting in the writing of their own papers and presentations to the class.
**SCI 321 - Human Anatomy and Physiology**  
*Full credit, meets 4 days/week, including one double lab period.*  
**Prerequisites:** Biology, Chemistry  
This upper-level course in biology examines the structures and functions of cells, tissues, organs, and organ systems found in the human body. The class will go through the complexity of many features found in body systems, such as the microscopic anatomy of bones in the skeletal system, the sliding filament model of the muscular system, action potential propagation in the nervous system, and the cardiac cycle of the cardiovascular system. The class will emphasize the relationship between the physiological aspects of the organ systems to one another. Additionally, students will complete research projects and presentations, where they will be able to focus on a specific topic, disorder, disease, treatment, or surgery related to the body systems discussed in class. Possible research topics include common skin disorders, knee replacement surgery, muscular dystrophy, and the impact of specific drugs on neurons. Laboratory investigations will include performing a variety of dissections, measuring bodily activity, and modeling physiological processes.

**SCI 410 - Biology 2A and 2B: Molecular Genetics and Cell Physiology**  
*Full credit, meets 4 days/week, including one double lab period.*  
**Prerequisites:** Biology, Chemistry, and Physics or Physics Honors, departmental approval. Particularly outstanding and interested students may be permitted to take Physics concurrently.  
Molecular Genetics and Cell Physiology is an advanced biology course. During the first half of the course, we will learn about modern molecular genetics, from the classic experimental events that identified the proteins involved in DNA replication and repair, to cutting-edge assays and gene sequencing. Then, our focus will shift to the cell, the foundational building block for all living things, and we will learn about cellular structure and processes. This course will address cell structure, energy metabolism, cellular signaling, physiology of various types of cells including neurons, as well as the endocrine and immune system cellular responses. The vital role of cellular physiology in feedback mechanisms to maintain homeostasis will be a central theme across the course. The course will draw upon a solid foundation of basic chemical knowledge and integrate it into the understanding of how cells function within multi-cellular organisms. The course will include topics that will span both prokaryotic and eukaryotic organisms, but will focus on multicellular eukaryotic organisms.
**SCI 401 - AP Biology**
Open to seniors only in 2020-21
*Full credit, meets 5 days/week, including one double lab period.*
Prerequisites: Biology, Chemistry, and Physics or Physics Honors, departmental approval. Particularly outstanding and interested students may be permitted to take Physics concurrently.

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.

**SCI 402 - AP Environmental Science**
Open to seniors only in 2020-21
*Full credit, meets 5 days/week, including one double lab period.*
Prerequisites: Biology, Chemistry, and Physics or Physics Honors, departmental approval. Particularly outstanding and interested students may be permitted to take Physics concurrently.

AP Environmental Science investigates the interconnectivity of the natural world and human activity, and is equivalent to a one-semester college course. Interdisciplinary in nature, students will learn to incorporate elements from an array of disciplines including ecology, geology, social sciences, chemistry, and physics to understand and evaluate environmental problems and solutions using scientific principles. Field and laboratory work, projects, presentations, and field trips are all integral aspects of this course. Pressing issues of today—global climate change, loss of biodiversity, overpopulation, overfishing, and water supply—will all be discussed. This course both prepares students for advanced study in the many fields of environmental science as well as provides a foundation in scientific and environmental literacy to understand the impact of humans on the environment and the complexity of the world around us. Students are required to take the AP Environmental Science exam at the conclusion of the course.
SCI 322 - Experiments in Physics and Chemistry

*Full credit, meets 4 days/week, including one double lab period.*

*Prerequisites: Biology, Chemistry*

This course is designed for those students who are interested in exploring topics in Chemistry and Physics from an experimental perspective. This 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 second semester, 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.

SCI 425 - Chemistry 2A and 2B: Concepts and Applications

*Full credit, meets 4 days/week, including one double lab period.*

*Prerequisites: Biology, Chemistry, and Physics or Physics Honors, departmental approval required (see below).*

This course is comparable to an introductory college course in general chemistry. Considerable emphasis is placed on: the quantitative aspects of chemistry; the conceptual understanding of how compounds and molecules interact; how to design and execute sophisticated inquiry based experiments that support that understanding; and, the derivation of mathematical relationships through more complex experiments that follow the guided instruction model. This course will also focus on making connections to real-world applications of chemistry, for example, Atmospheric and Ocean chemistry, Lewis Acid-Base chemistry, Buffering, and Batteries. Semester I will focus on chemical structure and bonding, and semester II will focus on chemical equilibrium, free energy and reaction kinetics. Strong problem-solving skills are required to master this course.

Approval requirements: In addition to approval by the department, students must be enrolled in or have completed Precalculus. Particularly outstanding and interested students may be permitted to take Physics concurrently.
**SCI 403 - AP Chemistry**
Open to seniors only in 2020-21
Full credit, meets 5 days/week, including one double lab period.
Prerequisites: Biology, Chemistry, and Physics or Physics Honors, departmental approval required (see below).
This course is comparable to an introductory college course in general chemistry. Considerable emphasis is placed on the quantitative aspects of chemistry, the conceptual understanding of how compounds and molecules interact, and how to design and execute sophisticated experiments that support that understanding. The topics of Chemistry (SCI 220) are revisited here at a significantly deeper level and at a faster pace. Students are expected to draw on their previous understanding developed in Chemistry (SCI 220). Topics include chemical bonding, stoichiometry, gas laws, solutions, atomic chemistry, thermodynamics, reaction kinetics, chemical equilibrium, acid-base equilibrium, and electrochemistry. The laboratory portion of the course incorporates a variety of techniques supported by analytical equipment and allows for the opportunity to practice and improve scientific writing skills. Strong problem-solving skills are needed to master this course. Students are required to take the AP Chemistry examination at the conclusion of the course.
Approval requirements: In addition to approval by the department, students must be enrolled in or have completed Precalculus. Particularly outstanding and interested students may be permitted to take Physics concurrently.

**SCI 420 - Organic Chemistry and its Applications in Biochemistry**
Full credit, meets 4 days/week, including one double lab period.
Prerequisites: Biology, Chemistry, and Physics or Physics Honors, departmental approval. Particularly outstanding and interested students may be permitted to take Physics concurrently.
This rigorous, advanced elective course focuses on chemistry that bridges the fundamentals of carbon-based chemistry and biological applications. Students will have the opportunity to engage with advanced organic and biochemistry material in a collaborative environment and be challenged to think independently and creatively. The organic focused semester will build a foundation in Lewis acid-base theory, organic nomenclature, stereochemistry, and reaction mechanisms. In the biochemistry semester, students will focus on how the structure and function of macromolecules in biological systems interact. Students will explore the biochemical requirements and mechanisms of biological pathways. Many of the laboratory experiments are multi-week projects and require students to think critically while introducing essential organic chemistry and biochemistry laboratory skills.
**SCI 310 - Selected Topics in Physics**  
*Full credit, meets 4 days/week*  
**Prerequisites:** Biology, Chemistry  
The class is intended to work as a seminar, emphasizing cooperative and collaborative learning as a means of carrying out research. Thus, there are no tests or quizzes except as diagnostic exercises. Assessment is based on contributions to class discussion as well as presentations and projects, individually and in small groups throughout the year. The informal tone of the course therefore demands a genuine interest in and dedication to both the material and the sincere learning dynamic. This course does not fulfill the Physics prerequisite for 400-level Science courses.

Each semester, students will explore one or more paired themes—a foundational one followed by a broader application to something more wide-ranging, which may include social, political, or even philosophical aspects. Some examples of thematic combinations are: Astronomy and Cosmology, Sound and Music, Energy and Climate Change, Technological Development and Ethics, Chaos Theory and Predictability. Students are encouraged to pursue topics within these themes that matter to them.

**SCI 404 - AP Physics with Calculus [AP Physics C: Mechanics and AP Physics C: Electricity and Magnetism]**  
*Open to seniors only in 2020-21*  
*Full credit, meets 5 days/week, including one double lab period.*  
**Prerequisites:** Biology, Chemistry, and Physics or Physics Honors, department approval (see below).  
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 Newton's laws, conservation of energy, momentum and angular momentum, gravitation, rotational dynamics, 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. Laboratory investigations involve a variety of experimental techniques and methods of data analysis. Analysis of experimental error is emphasized and formal laboratory reports are required periodically. Students have substantial freedom in designing their own experiments, and many experiments are carried out over several weeks. 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.
Approval requirements: In addition to approval by the department, students must be enrolled in or have completed AP Calculus AB (MATH 401) or Calculus Honors (MATH 422) or have earned a score of 4 or 5 on the AP Calculus BC exam.

Science Research at HM

The goal of the Science Research Program at Horace Mann School is to prepare and support students through a science research experience. This support begins by providing students with the understanding of scientific method and skills necessary to perform research and continues through the research experience. Finally, students are supported as they present their research at local science competitions and symposiums and write a full research paper. A map of the different tracks is included in the Program of Studies. Students may choose to track (T1) by searching for an outside lab experience for the summer between Science Research I and Science Research II and will be coached through that process. Alternatively, students may choose to track (T2) and plan to join an ongoing research project at Horace Mann. This hands-on research project will be performed at Horace Mann in collaboration with an outside institution/lab. Finally, students who have already secured a steady research experience outside of Horace Mann may choose to track (T3), and will work consistently outside of school while working with the Science Research curriculum. Should a T1 student be unsuccessful in securing outside research, they may move to T2 by Spring of year one. Students of all tracks will be mixed within the same section, and will learn the same curriculum, with appropriate differentiation to help each student meet their science research goals. The course is scheduled every other day, with class meetings occurring once per week. Other scheduled periods will be used for one-on-one or small group meetings and experimentation.

Please note, we are currently in the process of forging a long-term relationship with an outside research institution/lab. This relationship would allow students to perform hands-on, high-impact research connected with that lab on the Horace Mann campus and would provide students with an opportunity to directly collaborate with active research scientists. However, this opportunity is in the early planning stages, so we are unsure at this time whether T2 will be available to students in the 2020-2021 school year. We will have this information by summer of 2020. Approval requirements: Selection is at the discretion of the department. Before submitting their Course Request sheet on April 28th, 2020, interested students must meet with the Science Research Coordinator and submit an application to the program.
**SCI 323 - Science Research 1: Research Theory and Skills**

*One-half credit, meets every other day*

**Prerequisites:**
The curriculum of year one is focused on reading scientific literature, gathering background information on a science research project, to converse about the scientific research of others, specifying research interests, and developing research projects. An overview of the scientific method and practice of science research will be studied. Students will also learn how to build a resume, interview, and write emails to outside labs as they are supported in finding outside research opportunities. Some discussions will also center around ethics and science research.

**COURSES NOT OFFERED IN 2020-21**

**SCI 301 - Advanced Topics in Biology**

*[Course not offered 2020-2021]*

*Full credit, meets 4 days/week, including one double lab period*

**Prerequisites: Biology, Chemistry**

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 in a traditional textbook-oriented course. A majority of class time will be spent in laboratory experiments, discussion, and presentations, rather than lecture. Students will design and conduct experiments and lead discussions on scientific articles, while incorporating aspects of other areas of study, such as engineering, ecology, physiology, physics, chemistry, and history. The course will focus on various topics of interest in biology, which will vary from year to year. Past topics include: the biology of food; biomimicry; urban ecology and biodiversity; exercise physiology; and bacteriology and microbiology.

**SCI 411 - Biology 2A and 2C: Molecular Genetics, Evolution and Ecology**

*[Course not offered in 2020-2021]*

*Full credit, meets four days/week including one double lab period.*

**Prerequisites: Biology, Chemistry, and Physics or Physics Honors, departmental approval. Particularly outstanding and interested students may be permitted to take Physics concurrently.**

Molecular Genetics, Evolution and Ecology is an advanced biology course. During the first half of the course, we will learn about modern molecular genetics, from the classic experimental events that identified the proteins involved in DNA replication and repair, to cutting-edge assays and gene sequencing. The second half of the course focuses on the processes and evidence of evolution as a means to study biological diversity and ecosystem structure. We will build a comprehensive
understanding of the fundamentals of life history, behavior, population dynamics, ecosystem processes and how evolution shapes ecological relationships. Finally, we will make connections between species diversity and ecosystem function in order to understand the importance of conserving biodiversity. Conceptual learning will be supported by hands-on inquiry-driven investigations that emphasize experimental design, data analysis and scientific communication.

**SCI 440S - Science Research 2: Analysis and Presentation of Research**  
*Course not offered 2020-2021*  
*One-half credit, meets every other day*  
**Prerequisites:**
Students enrolled in year two would focus on written and oral presentations of their research. They will enter various competitions and symposiums, with the course requiring entry into NYCSEF (New York City Science and Engineering Fair), only. In addition, discussions about the scientific method and practice of research, data analysis, and research ethics will continue. Students will informally mentor year one students. For T1 students, experimentation must have taken place the summer prior to this course. For T2 students, experimentation will continue through the fall semester of this course. For T3 students, experimentation will occur through at least the fall of the course.

**SCI 445S - Scientific Primary Literature Seminar**  
*Course not offered 2020-2021*  
*Full credit, meets 4 days/week*  
**Prerequisites:**
Most communication of new research occurs in the form of peer-reviewed research articles published in scientific journals. These papers generally follow a standard format that is quite distinct from how information is presented in textbooks or in popular media. In this course, students will learn how to read, critically evaluate, and present research from scientific papers. Papers will include both current and classic papers, and the specific topics will be based on the interests of the students in the class. Most classes will involve student-led discussion of selected papers, and the class will culminate in the writing of a review article based on papers read throughout the year.
World Languages

Requirements:
Sequential study through at least the third level of a full credit language offering available in Chinese, French, Japanese, Latin, and Spanish.

Courses

Full credit courses

- Chinese 1 (LNGC 210)
- Chinese 2 (LNGC 220)
- Chinese 3 (LNGC 230)
- Chinese 4 (LNGC 310)
- Chinese 5 (LNGC 320)
- French 1 (LNGF 210)
- French 2 (LNGF 220)
- French 2 Honors (LNGF 221H)
- French 3 (LNGF 230)
- French 3 Honors (LNGF 231H)
- French 4 (LNGF 310)
- French 5 (LNGF 320)
- AP French Language and Culture (LNGF 401)
- Studies in French: Marges et Centres du Monde Francophone (LNGF 410)
- French Seminar (LNGF 420S)
- Japanese 1 (LNGJ 210)
- Japanese 2 (LNGJ 220)
- Japanese 3 (LNGJ 230)
- Japanese 3 Honors (LNGJ 231H)
- Japanese 4 (LNGJ 310)
- Japanese 4 Honors (LNGJ 311H)
- Japanese 5 (LNGJ 320)
- AP Japanese Language and Culture (LNGJ 401)
- Japanese 6 (LNGJ 410)
□ Latin 1 (LNGL 210)
□ Latin 2 (LNGL 220)
□ Latin 3 (LNGL 230)
□ Latin 3 Honors (LNGL 231H)
□ Latin 4 (LNGL 310)
□ AP Latin (LNGL 401)
□ Studies in Latin: Rome’s Narrative (LNGL 410)
□ Latin Seminar (LNGL 420S)

□ Spanish 1 for Beginners (LNGS 210)
□ Spanish 1 for Advanced Beginners (LNGS 211)
□ Spanish 2 (LNGS 220)
□ Spanish 2 Honors (LNGS 221H)
□ Spanish 3 (LNGS 230)
□ Spanish 3 Honors (LNGS 231H)
□ Spanish 4 (LNGS 310)
□ Spanish 5: Spanish through Film (LNGS 320)
□ AP Spanish Language and Culture (LNGS 401)
□ Studies in Spanish: Canciones, Cantantes y Poetas: Revoluciones en el Mundo Hispano (LNGS 410)
□ Seminar: The Hispanic World (LNGS 420S)

Half credit courses

□ Ancient Greek A (LNGG 201)
□ Ancient Greek B (LNGG 202)
□ Ancient Greek C (LNGG 203)

□ Latin A (LNGL 201)
□ Latin B (LNGL 202)
□ Latin C (LNGL 203)
□ Latin D (LNGL 301)
□ Latin E (LNGL 302)
Graduation Requirements:
Sequential study through at least the third level of a full credit language offering available in Chinese, French, 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.

Approval Requirements for Honors Courses:
Honors courses are offered to students whose language proficiency is at the highest end of the range for their level, and demonstrate consistent interest in the study of 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+. 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, demonstrate class citizenship, and have departmental approval. The average of the two semester grades and progression in performance throughout the entire year will be taken into account. An additional assessment may be required to determine eligibility.

Special Case Placement
For students who wish to study a language in which they have previous experience (e.g. spoken at home, studied at another school), the department requires a placement exam. Students must contact the Department Chair prior to registration to schedule an evaluation.

Note on Arts Requirement
Students committed to studying one language as a full credit and another as a half credit for all four years may be exempted from one-half credit arts class. That is, if a student stays with half credit Latin or Greek throughout their years in the Upper Division, along with another language, they will be asked to complete 1.5 credits of arts to graduate, rather than 2.0. Each case will be evaluated by the student’s Grade Dean and the Head of Upper Division.
Chinese

LNGC 210 - Chinese 1
Full credit, meets 5 days per week
Prerequisites: None
This course for beginners 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.

LNGC 220 - Chinese 2
Full credit, meets 4 days/week
Prerequisites: Chinese 1 or placement exam.
The second-level Mandarin Chinese language course will build on the basic skills acquired in Chinese 1. 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.
LNGC 230 - Chinese 3
*Full credit, meets 4 days/week*
Prerequisites: Chinese 2 or placement exam.
The third-level Mandarin Chinese language course is a continuation of Chinese 2. 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.

LNGC 310 - Chinese 4
*Full credit, meets 4 days/week*
Prerequisites: Chinese 3 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.

LNGC 320 - Chinese 5
*Full credit, meets 4 days/week*
Prerequisites: Chinese 4 or placement exam.
This course is designed to further develop oral and written proficiency through texts and discussions of socio-cultural topics related to modern China. Students learn to incorporate formal usage of the language to supplement their understanding of the colloquial form. They acquire complex vocabulary and grammatical patterns needed to conduct discussions through selected Chinese films and literature (poetry, essays, short stories, etc.). Student progress is assessed through self-created dialogues, essays, presentations and comprehension quizzes. This class is conducted entirely in Chinese.
French

LNGF 210 - French 1

*Full credit, meets 5 days/week*

*Prerequisites: None*

This is an introductory course designed for students with no prior experience studying French. Students learn to express meaning through collaborative projects and tasks with an observable outcome. They mobilize basic language structures through activities with a communicative purpose, talking about themselves, requesting and giving information about people, expressing likes, dislikes, needs and obligations. Using authentic sources drawn from a variety of media, students develop all three modes of communication: interpretive, interpersonal and presentational while learning about the cultures of the francophone world. This course prepares students for continued success in French 2 the following academic year.
**LNGF 220 - French 2**  
*Full credit, meets 4 days/week*  
**Prerequisites:** French 1 or placement exam for new students.  
Conducted primarily in French, this course is a continuation of the work begun in Middle Division or French 1. It leads students to communicate directly in a meaningful way to engage critically with authentic listening and reading materials. The course focuses on solidifying previously covered language structures and expanding students’ proficiency in French as a vehicle for self-expression and for navigating and accomplishing tasks related to everyday life. To stimulate students’ expression and sharpen their ability to communicate, we use a variety of contemporary French sources in a variety of media. Students compare their own experiences and culture to contemporary francophone cultures in North America, the Caribbean, Europe, and Africa.

**LNGF 221H - French 2 Honors**  
*Full credit, meets 4 days/week*  
**Prerequisites:** French 1 or HM Middle Division Accelerated French 3, and departmental approval (see below).  
Also conducted primarily in French, this course parallels French 2. The course distinguishes itself by devoting significantly less time to solidifying previously covered language structures and instead focusing on expanding students’ proficiency in French as a vehicle for self-expression and for navigating and accomplishing tasks related to everyday life. Sources are selected to challenge students to expand their level of proficiency.  
Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.

**LNGF 230 - French 3**  
*Full credit, meets 4 days/week*  
**Prerequisites:** French 2  
This course continues the work of French 2 and is conducted entirely in French. While placing the same emphasis on meaningful communication and authentic materials as French 2, French 3 focuses on solidifying previously covered language structures and expanding students’ proficiency in French. Students move from accomplishing tasks related to everyday life to those concerning their community. To stimulate students’ expression and sharpen their ability to communicate, we use a wide range of contemporary French sources in a variety of media. Students compare their own experiences and culture to contemporary francophone cultures in North America, the Caribbean, Europe, and Africa.
LNGF 231H - French 3 Honors
Full credit, meets 4 days/week
Prerequisites: French 2 Honors or French 2, and departmental approval (see below).
Also conducted entirely in French, this course parallels French 3, but devotes significantly less time to solidifying previously covered language structures. Instead it focuses predominantly on expanding students’ proficiency in French as a vehicle for self-expression and for accomplishing tasks related to interactions with the community. Students also complete more specialized tasks (such as writing a professional email or soliciting or interpreting specialized information). Students are asked on occasion to accomplish tasks involving abstract ideas. Sources are selected to challenge students to expand their level of proficiency.
Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.

LNGF 310 - French 4
Full credit, meets 4 days/week
Prerequisites: French 3
This course continues the work of French 3 and is conducted entirely in French. Students learn to communicate directly and meaningfully, while addressing abstract ideas from a variety of sources. The course focuses on solidifying previously covered language structures and expanding students’ proficiency in French as a vehicle for self-expression and the accomplishment of tasks related to their community, and to salient global issues. Students create several filmed performances, as well as write both analytically and creatively. Emphasis is placed on oral engagement. To stimulate students’ expression and to sharpen their ability to communicate, we use a variety of contemporary francophone sources such as: websites, novellas, poems, fables, films, articles, book excerpts and chapters, songs, and comics. Students compare their own experiences and culture to contemporary francophone cultures in North America, the Caribbean, Europe, and Africa.

LNGF 320 - French 5
Full credit, meets 4 days/week
Prerequisites: French 4
In this class, conducted almost exclusively in French, students deepen their knowledge of francophone cultures and refine their language, using diverse, contemporary cultural sources such as literary excerpts, newspaper articles, blogs, comic books, and francophone films. The class will foster discussion, cultural comparisons and global awareness. The culminating group project will be a video production developed from one of the topics studied in class.
LNGF 401 - AP French Language and Culture
Open to seniors only in 2020-21
Full credit, meets 5 days/week
Prerequisites: French 3 Honors, French 4 honors or French 4, and departmental approval (see below).
Tailored to reflect the expectations of a 3rd-year college course, this class introduces students to a wide range of authentic French-language texts, articles, podcasts, poems, songs, films and art, in order to deepen their knowledge of French and francophone cultures and to familiarize them with the six major themes of the AP program: Global Challenges, Personal and Public Identities, Contemporary Life, Science and Technology, Beauty and Esthetics, and Families and Communities. Students refine their French language skills and extend their command of the language, developing content knowledge through research, discussion, and debate. They also analyze and compare issues from their own cultural perspective and those of francophone cultures through the completion of tasks such as writing a formal email, conducting a phone call with a native speaker, comparing and contrasting their own culture and a francophone one, and writing a persuasive essay. This course prepares students to perform strongly on the AP Exam in May and to become a global citizen and a lifelong learner and speaker of French.
Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.

LNGF 410 - Studies in French: Marges et centres du monde francophone
Full credit, meets 5 days/week
Prerequisites: French 3 Honors, 4 Honors or French 4, and departmental approval (see below).
Conducted entirely in French, this course will be dedicated to a study of ‘outsiderness’ and marginality in various francophone contexts. Through a selection of historical documents, literary excerpts, songs, videos, and articles from different parts of the French-speaking world, students will explore the means through which individuals and groups are marginalized by mainstream designations and will consider various modes and strategies of noncompliance, among them: resistance, rebellion, and identity nonconformity. Students develop language skills and content knowledge through research, discussion, debate, and completion of real world tasks that are directly applicable to life beyond the classroom. Students will be able to communicate confidently in French; to use with precision the grammatical structures
to support their communicative abilities; to understand French written for native speakers, in a variety of discourses, topics, styles, registers and regional variations; to produce written and spoken French that is comprehensible to native speakers; to acquire information in French from authentic sources; to understand different aspects of francophone cultures, and to make connections and comparisons between them and different disciplines or their own culture.

Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.

**LNGF 420S- French Seminar**

*Full credit, meets 4 days/week*

*Prerequisites: AP French Language and Culture, and departmental approval (see below).*

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 French culture. The course includes 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.

Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.
Ancient Greek

LNGG 201 - Ancient Greek A
One-half credit, meets every other day
Prerequisites: None
This entry-level half credit course covers fundamentals of the language of the ancient Greeks and conveys a synopsis of their mythology, religion and culture. The class combines a thematic, story-based approach with structured grammar. Besides mastering basic forms of grammar and vocabulary, students will come to understand the relevance and scope of Greek derivation in contemporary English. Students will deepen their acquaintance with the classical world as they explore how its art, mythology, philosophy and science, and art have jointly helped shape the foundations of our civilization.
LNGG 202 - Ancient Greek B
One-half credit, meets every other day
Prerequisites: Ancient Greek A or placement exam.
In this half credit course students complete the study of grammar and vocabulary essential for progressing on toward reading authentic Greek texts: to start, some of Herodotus’ most compelling stories in the Histories about both mythical and historical protagonists of the Greco-Persian wars. The cultural emphasis of these readings rests on the early history and mythology of the ancient Greeks. Following student preference (and time permitting), the class will read selected passages from Homer’s Iliad.

LNGG 203 - Ancient Greek C
One-half credit, meets every other day
Prerequisites: Ancient Greek B or placement exam.
In Ancient Greek C we continue the study of Ancient Greek and deepen our understanding of the Classical world. The third year of study will be devoted to reading a diverse array of seminal texts that trace Greek history and storytelling from the cradle of Western civilization to the historic events of the Peloponnesian war. Readings include Herodotus’ story of King Croesus; Plato’s reflection on the immortality of the soul in Phaedo; poems from Hesiod’s Theogony; selections from Homer’s Iliad; and, depending on student interest, and time permitting, scenes from tragedies by Sophocles and Euripides. Along the way, we will continue to expand our focus on linguistic and cultural vestiges of the ancient Greeks in our civilization.

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

**LNGJ 210 - Japanese 1**
*Full credit, meets 5 days/week*
*Prerequisites: None*

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 Japanese cultural events.

**LNGJ 220 - Japanese 2**
*Full credit, meets 4 days/week*
*Prerequisites: Japanese 1 or placement exam*

The course focuses on solidifying previously covered writing systems (Hiragana, Katakana and Kanji), language structures and vocabulary, expanding students’ proficiency in Japanese for the purpose of self-
expression and for navigating and accomplishing tasks related to everyday life. Students build on the skills acquired in Japanese 1 with a continued focus on acquiring proficiency in spoken and written language forms. Various cultural topics are covered as students participate in Japan Day as well as a variety of other cultural and experiential learning activities.

**LNGJ 230 - Japanese 3**  
*Full credit, meets 4 days/week*  
*Prerequisites: Japanese 2 or placement exam.*

The course focuses on solidifying previously covered language structures and writing systems (Hiragana, Katakana and Kanji) and expanding students’ proficiency in Japanese for the purpose of self-expression and for navigating and accomplishing tasks related to everyday life. Students work on 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.

**LNGJ 231H - Japanese 3 Honors**  
*Full credit, meets 4 days/week*  
*Prerequisites: Japanese 2 and departmental approval required (see below).*

This course parallels Japanese 3. The course distinguishes itself by devoting significantly less time to solidifying previously covered language structures and writing systems, and by expanding students’ proficiency in Japanese. Students are asked on occasion to accomplish tasks involving abstract ideas. Sources are selected to challenge students to expand their level of proficiency. Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.

**LNGJ 310 - Japanese 4**  
*Full credit, meets 4 days/week*  
*Prerequisites: Japanese 3*

This course emphasizes developing fluency based on previously acquired grammar and vocabulary in Japanese. The course includes a comprehensive grammar review adding newer grammar structures, 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 computer is encouraged. This course is conducted primarily in Japanese.

**LNGJ 311H - Japanese 4 Honors**  
*Full credit, meets 4 days/week*  
*Prerequisites: Japanese 3 Honors, or Japanese 4, and departmental approval required (see below).*  
This course parallels Japanese 4. The course distinguishes itself by devoting significantly less time to solidifying previously covered language structures and writing systems, and expanding students’ proficiency in Japanese. Students read more complex literary sources, which are selected to challenge them to expand their level of proficiency.  
Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.

**LNGJ 320 - Japanese 5**  
*Full credit, meets 4 days/week*  
*Prerequisites: Japanese 4 or 4 Honors*  
This course is designed for students with a solid background in Japanese and for the students who have completed AP Japanese. Students learn to use honorifics, humble and polite language, increase their study of Kanji (Chinese characters), and read literary texts in Japanese. Students are encouraged to participate in speech contests and other events that promote the use of the language as well as the acquisition of cultural knowledge. The class is conducted completely in Japanese.

**LNGJ 401 - AP Japanese Language and Culture**  
*Full credit, meets 5 days/week*  
*Prerequisites: Japanese 3 Honors, Japanese 4 Honors or Japanese 4, and departmental approval required (see below).*  
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, films and frequent reading and writing assignments. Students write expository essays in Japanese and analyze some literary works. Grammar and Kanji are reviewed thoroughly.
Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.
Open to seniors only in 2020-21

**LNGJ 410 - Japanese 6**
*Full credit, meets 4 days/week*

*Prerequisites: Japanese 5 or AP Japanese*

A continuation of Japanese 5 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.

Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.
As depicted in the graph below, the Department of World Languages offers Latin both in a sequence of full-credit classes and in a sequence of half-credit classes, in order to provide students with the option to (continue to) study Latin alongside a modern language. With regard to the mastery of declensions, conjugations, and the grammatical structures of the Latin sentence, the half-credit course sequence operates at levels roughly equivalent to those of the full-credit course sequence, a parallel that allows students options to progress from a half-credit course to the next level full-credit course [e.g., from Latin C in 10th grade to Latin 4 or Rome’s Epic Narrative in 11th grade] if they elect to transition from the half to the full-credit Latin sequence. Students committed to studying one language as a full credit and another as a half-credit for all four years may be exempted from one half-credit arts class. That is, if a student stays with half-credit Latin or Greek throughout all their years in the Upper Division, along with another language, they will be asked to complete 1.5 credits of arts to graduate, rather than 2.0. Each case will be evaluated by the student’s Grade Dean and the Head of Upper Division.
LNGL 201 - Latin A
One-half credit course, meets every other day
Prerequisite: None
This course parallels the curriculum of Latin 1. Latin A is a half-credit course at the introductory level, designed for students who want to start studying Latin alongside a full-credit modern language. The primary course focus rests on building a solid foundation for reading and enjoying classical works through mastery of vocabulary and the grammatical structures of the Latin sentence. As they acquire the skills to read stories from Roman mythology and history, students will become acquainted with the classical world, the Roman way of life, and Roman culture, as seen through the eyes of the great storytellers of Rome. Along the way, the class will explore the traces, both in the English language and in literature, left by the Latin language and by the stories Romans loved to hear, about their gods, their heroes, and their ancestors. Students will learn to understand Latin as a foundational language of a number of modern languages.

LNGL 202 - Latin B
One-half credit course, meets every other day
Prerequisite: HM Middle Division Classics, Latin A or placement exam for new students
This course parallels the curriculum of Latin 2. Latin B is designed for students with one year (or equivalent) of prior Latin instruction. The primary course focus rests on mastery of declensions and conjugations, and of the most common grammatical structures governing the Latin sentence. Students continue to expand their knowledge of vocabulary and augment their reading skills, strengthening their grasp of core concepts of grammar and syntax. They develop a more nuanced understanding of Latin modes of expression. Along the way the class transitions from reading adapted Latin to reading authentic Latin, and, time permitting, will start with Caesar's account of the Gallic Wars in De Bello Gallico. In addition to solidifying their reading skills, students will develop a capacity for analysis and interpretation. Readings are balanced with descriptions of Caesar's character by his biographers, and will be viewed in the context of major political events of the Republic in the first century BCE.

LNGL 203 - Latin C
One-half credit course, meets every other day
Prerequisite: Latin B or placement exam for new students
This course parallels the curriculum of Latin 3. The core curriculum of third-year Latin embraces major authors of the late Republic and early Empire: the chronicles of Caesar, the orations of Cicero, and the poetry
of Ovid and Catullus. As students explore these writings, they will solidify their reading skills and broaden their capacity for analysis and nuanced interpretation. Other objectives of this course are to provide historiography and oratory of the Late Republic with historical and political contexts. Students explore the stylistic and literary diversity of classical authors as the latter evoke in vivid detail some of the most memorable political scenes of the Late Republic. Upon successful completion of this course, students may continue with Latin D or Latin 4.

**LNGL 301 - Latin D**

One-half credit course, meets every other day  
Prerequisites: Latin C or placement exam for new students

This course parallels the curriculum of Latin 4. This course focuses on the genres of historical narrative and literary letters (epistulae) of Late Republic and Early Empire. The objective of this class is to introduce students to the works of prose authors such as Sallust, Tacitus, Cicero and Pliny the Younger, all of whom bore witness to fascinating key episodes in Roman history. Students work toward producing expressive and nuanced translations as they explore contemporaneous and retrospective accounts of Roman history. Selections from these authors will explore events such as the Catilinarian conspiracy, the eruption of Mount Vesuvius, and the intrigue and excesses of the imperial court. Crucial moments and persons encountered in Latin 3 will be explored from new perspectives and through the uniqueness of Roman epistulae. Attention will also be paid to the development of Roman historiography and the ways in which narrative order is conceived, and to how these works resonate against the political, cultural, and historical background of the times in which they were written.

**LNGL 302 - Latin E**

One-half credit course, meets every other day  
Prerequisites: Latin C or placement exam for new students

This course parallels the curriculum of Latin Seminar. The objective of this course is to explore in greater detail important works (both literary and epigraphic) of the late Republican and early Imperial periods. A significant focus will be placed on understanding the stylistic values embraced by the poetae novi of the first century BCE as embodied in the corpus of Catullan poems and the epigrams of Martial. These poetic works provide a unique opportunity to examine Roman views surrounding topics of love, death, the end of relationships, travel, plagiarism, and the “other”. In addition, the course will also explore
epigraphic examples as a means of connecting with varying aspects of Roman society which the traditional literary works fail to provide.

Through scholarly articles and author based projects, students will move beyond mere translation toward a greater appreciation of the cultural content and historical context of each work.

**LNGL 210 - Latin 1**  
*Full credit, meets 5 days/week*  
*Prerequisite: None*

Latin 1 lays the groundwork for understanding Latin, the language of the ancient Romans and a foundational language of a number of modern languages and cultures. The primary course focus rests on building solid skill sets for reading and enjoying classical works of literature: prose, epic and lyric poetry, oratory, historiography. Students are introduced to core concepts of grammar and develop basic reading vocabulary. As they acquire the skills to read stories from Roman mythology and history, students will become acquainted with the classical world, the Roman way of life, and Roman culture, as seen through the eyes of the great storytellers of Rome. Along the way, the class will explore the traces, both in the English language and in literature, left by the Latin language and by the stories Romans loved to hear about their gods, their heroes, and their ancestors.

**LNGL 220 - Latin 2**  
*Full credit, meets 4 days/week*  
*Prerequisite: HM Middle Division Classics, Latin I, Latin A, or placement exam for new students*

In Latin 2 students continue to expand and augment their reading skills, strengthening their grasp of core concepts of grammar and syntax, and enlarging their vocabulary. They develop a more nuanced understanding of Latin modes of expression. Along the way the class transitions from reading adapted Latin to reading authentic Latin, and time permitting, will start reading Caesar’s account of the Gallic Wars in *De Bello Gallico*. In addition to solidifying their reading skills, students will develop a capacity for analysis and interpretation. Readings are balanced with descriptions of Caesar’s character by his biographers, and will be viewed in the context of major political events of the Republic in the first century BCE.
LNGL 230 - Latin 3
*Full credit, meets 4 days/week*
*Prerequisite: Latin 2, Latin B, or placement exam for new students*
The core curriculum of third-year Latin embraces major authors of the late Republic and early Empire: the chronicles of Caesar, the orations of Cicero, and the poetry of Ovid and Catullus. As students explore these writings, they will solidify their reading skills and broaden their capacity for analysis and nuanced interpretation. A secondary objective of this course is to provide historiography and oratory of the Late Republic with historical and political contexts. Students explore the stylistic and literary diversity of classical authors as they draw before the reader some of the most memorable political scenes of the Late Republic.

LNGL 231H - Latin 3 Honors
*Full credit, meets 4 days/week*
*Prerequisites: Latin 2, Latin B, or placement exam for new students and departmental approval (see below)*
The core curriculum of third-year Latin embraces major authors of the late Republic and early Empire. This course parallels Latin 3, but is faster-paced and devotes more detailed attention to the historical and political events that shape the era, and significantly less time reinforcing grammatical concepts and syntactical structures. As students learn to read the chronicles of Caesar, the orations of Cicero, and the poetry of Ovid and Catullus among others, they will solidify their reading skills and broaden their capacity for analysis and nuanced interpretation. This course will provide historiography and oratory of the Late Republic with pertinent historical and political contexts. Students explore the stylistic and literary diversity of classical authors of the Late Republic.

Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.

LNGL 310 - Latin 4
*Prerequisite: Latin 3, Latin 3 Honors, or Latin C*
The Latin 4 courses focuses on the genres of historical narrative and literary letters (epistulae) of Late Republic and Early Empire. The objective of this class is to introduce students to the works of prose authors such as Sallust, Tacitus, Cicero and Pliny the Younger, all of whom bore witness to fascinating key episodes in Roman history. Students work toward producing expressive and nuanced translations as they explore contemporaneous and retrospective accounts of Roman history. Selections from these authors will explore events such as the Catilinarian conspiracy, the eruption of Mount Vesuvius, and the intrigue and excesses of the imperial court. Crucial moments and
persons encountered in Latin 3 will be explored from new perspectives and through the uniqueness of Roman epistulae. Attention will also be paid to the development of Roman historiography and the ways in which narrative order is conceived, and to how these works resonate against the political, cultural, and historical background of the times in which they were written.

**LNGL 401 - AP Latin**

*Open to seniors only in 2020-2021*

*Full credit, meets 5 days/week*

*Prerequisites: Latin 3 Honors, Latin 3, Latin C or Latin D, and departmental approval (see below)*

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.

Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.

**LNGL 410 - Studies in Latin: Rome’s Epic Narrative**

*Full credit, meets 5 days/week*

*Prerequisites: Latin 3 Honors, Latin 3, Latin C or Latin D, and departmental approval (see below)*

This course is designed to spark the enthusiasm and interests of Latin students who love literature, who delight in discovering connections across cultural contexts, with a focus on specific themes and who would love to understand fully and deeply the character of a single genre, epic verse. Immersion in epic poetry will invite students to explore the nature of Latin epic through a focus on the role of epic as a cultural force and a political power in the emergence of a distinctly Roman identity in a multi-ethnic, multicultural world. The class will address how epic poetry acquired and exercised joint cultural and political power to create, validate, and ultimately challenge Rome’s narratives of identity and legitimacy, through centuries of political transformation and territorial expansion from Rome’s mythical origins to its historic rise as a global power. Students develop reading skills and content knowledge through research and discussion. Students will be able to use with confidence
and precision grammatical structures to support their analytical and interpretive abilities; to understand Latin, in a variety of discourses, topics, styles, and variations; to produce comprehensive translations that are meaningful to an English-speaking audience; to acquire information from authentic sources; to understand different aspects of the Greco-Roman world.

Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.

**LNGL 420S - Latin Seminar**
*Full credit, meets 4 days/week*

*Prerequisites: Latin 4, Latin AP or Latin D, and departmental approval (see below)*

The objective of this seminar course is to explore in greater detail important works (both literary and epigraphic) of the late Republican and early Imperial periods. A significant focus will be placed on understanding the stylistic values embraced by the poetae novi of the first century BCE as embodied in the corpus of Catullan poems and the epigrams of Martial. These poetic works provide a unique opportunity to examine Roman views surrounding topics of love, death, the end of relationships, travel, plagiarism, and the “other”. In addition, the course will also explore epigraphic examples as a means of connecting with varying aspects of Roman society which the traditional literary works fail to provide. Through scholarly articles and author based projects, students will move beyond mere translation toward a greater appreciation of the cultural content and historical context of each work.
Spanish

**LNGS 210 - Spanish 1**

*Full credit, meets 5 days/week*

*Prerequisites: None*

This is an introductory course designed for students with no prior experience studying Spanish. Students learn to express their own meaning through collaborative projects and tasks with an observable outcome. They manipulate basic language structures through activities with a communicative purpose, talking about themselves, requesting and giving information about people, expressing likes, dislikes, needs and obligations. Through authentic sources from different parts of the Spanish speaking world, in a variety of media, students develop all three modes of communication: interpretive, interpersonal and presentational while learning about contemporary culture and history of Latin America and Spain. This course prepares students for continued success in Spanish 2 the following academic year.
**LNGS 211 - Spanish 1 for Advanced Beginners**  
*Full credit, meets 4 days/week*  
**Prerequisites:** Placement exam for students with 1 - 2 years of Middle Division Spanish.  
This course provides students with limited previous experience studying Spanish the opportunity to review basic skills of communication before proceeding to more complex uses of the language. Students manipulate basic language structures through activities with a communicative purpose, talking about themselves, requesting and giving information about people, expressing likes, dislikes, needs and obligations. Through authentic sources from different parts of Spanish speaking world, in a variety of media, students develop all three modes of communication: interpretive, interpersonal and presentational while learning about contemporary culture and history of Latin America and Spain. This course prepares students for success in Spanish 2 in the following academic year.

**LNGS 220 - Spanish 2**  
*Full credit, meets 4 days/week*  
**Prerequisites:** HM Middle Division Spanish 3, Spanish for Advanced Beginners or Spanish 1 or placement exam for new students.  
A continuation of the work begun in Middle Division 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 writing short compositions.

**LNGS 221H - Spanish 2 Honors**  
*Full credit, meets 4 days/week*  
**Prerequisites:** Middle Division Accelerated Spanish 3 and departmental approval; placement exam for new students.  
Conducted almost entirely in Spanish, this course parallels Spanish 2. It distinguishes itself by focusing on expanding students’ proficiency in Spanish. At this level, students activate new language structures through activities with a communicative purpose, describing and comparing places, relating biographical and autobiographical data, and talking about health. Authentic Spanish sources are selected to challenge students to expand their level of proficiency.  
Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.
**LNGS 230 - Spanish 3**  
*Full credit, meets 4 days/week*

**Prerequisites: Spanish 2**  
Conducted primarily in Spanish, this course continues the work done in Spanish 2. The course works on solidifying previously covered language structures and expanding students’ proficiency and accuracy in Spanish. Tasks and collaborative projects help students to talk about their communities and consider global issues. They practice narrating in different time frames and debating and justifying their opinions with arguments. Authentic sources from different parts of the Spanish speaking world, in a variety of media, are used to develop all three modes of communication: interpretive, interpersonal and presentational, and assessments will emphasize proficiency. Students learn about contemporary culture and history of Latin America and Spain, and compare it with their own.

**LNGS 231H - Spanish 3 Honors**  
*Full credit, meets 4 days/week*

**Prerequisites: Spanish 2 Honors or Spanish 2 and departmental approval.**  
Parallel to Spanish 3, this course focuses on expanding students’ proficiency in the language. It is conducted entirely in Spanish. Tasks and collaborative projects help students to talk about their communities and consider global issues. They practice narrating in different time frames and debating and justifying their opinions with arguments. Authentic Spanish sources are selected to challenge students to expand their level of proficiency, including the reading, discussion and writing on Federico García Lorca’s “La casa de Bernarda Alba”.

Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.

**LNGS 310 - Spanish 4**  
*Full credit, meets 4 days/week*

**Prerequisites: Spanish 3 or Spanish 3 Honors**  
Students continue to develop their proficiency in Spanish 4, by refining the linguistic resources learned previously and building up new ones. A balance between accuracy and fluency is achieved by accomplishing tasks and collaborative, communicative projects, that further connection between form and meanings, and the use of forms in context. Students work on topics related to Spanish and Latin American cultural, social, and historical life, developing critical thinking and fostering cultural competence. In Spanish 4, students develop a collaborative, year-long project on a topic of their choice related to the
Spanish speaking world: they write a blog throughout the year, and present about it at the end of each semester. The project is a great opportunity for the students to showcase their acquired abilities in Spanish, to cultivate their cultural competence and to encourage them to become life-long learners of Spanish.

**LNGS 320 – Spanish 5: Spanish through Film**

*Full credit, meets 4 days/week*

*Prerequisite: Spanish 4 Honors or Spanish 4*

Students continue to develop their language skills through the study and analysis of award winning Hispanic films. During this course of study, conducted exclusively in Spanish, students view and discuss films, research related historical contexts, make presentations, and produce short movies inspired by the films they analyze in class, among other tasks. Themes reflected in these notable films include immigration, daily challenges Hispanic families face in various regions, and the role of women, for example. Feature length films and documentaries explore such topics as the impact of the Mexican justice system, life in Cuba under Castro, the Bolivian water war, the Chilean dictatorship and the Spanish Civil War. Through this course students deepen their understanding of the realities of the Spanish speaking world.

**LNGS 401 - AP Spanish Language and Culture**

*Open to seniors only in 2020-21*

*Full credit, meets 5 days/week*

*Prerequisites: Spanish 3 Honors, Spanish 4 Honors or Spanish 4, and departmental approval.*

In this college level course, students will develop and refine their proficiency in Spanish. After successful completion of the course, students will be able to communicate fluently in Spanish in the three modes; to use confidently and with precision the language structures to support their communicative abilities; to understand Spanish written for native speakers, in a variety of discourses, topics, styles, registers and regional variations; to produce written and spoken Spanish comprehensible to native speakers in a variety of discourses, topics, styles, registers and regional variations; to acquire information in Spanish from authentic sources; to understand different aspects of the Latin American and Spanish cultures, and to make connections between them and different disciplines; to make comparisons between their own language and culture and the Spanish language and the cultures of the Spanish speaking world; and to be well informed in the six major themes of the AP program: Global Challenges, Personal and Public Identities, Contemporary Live, Science and Technology, Beauty and Esthetics, and
Families and Communities. A wide range 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, to become a global citizen and a lifelong learner and speaker of Spanish.

Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.

**LNGS 410 - Studies in Spanish: Canciones, Cantantes y Poetas: revoluciones del Mundo Hispano**

*Full credit, meets 5 days/week*

*Prerequisites: Spanish 3 Honors, Spanish 4 Honors or Spanish 4 and departmental approval.*

Conducted entirely in Spanish, this full-year course will be dedicated to the exploration of the intersections of popular music, poetry, and political and social movements in different Spanish-speaking countries, from around the 1960s to today. Through a selection of poems, songs, videos, newspaper or academic articles from different parts of the Spanish-speaking world, students will engage poets, singers and songwriters that have played a role in the construction of the Latin American and Hispanic contemporary identity, and have been and are the voice of its fundamental issues. Students develop language skills and content knowledge through research, discussion, debate, and completion of real world tasks that are directly applicable to life beyond the classroom. They will be able to communicate confidently in Spanish; to use the grammatical structures with precision to support their communicative abilities; to understand Spanish written for native speakers, in a variety of discourses, topics, styles, registers and regional variations; to produce written and spoken Spanish comprehensible to native speakers; to acquire information in Spanish from authentic sources; to understand different aspects of the Latin American and Spanish cultures, and to make connections and comparisons between them and different disciplines or their own culture.

Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.
LNGS 420S - Spanish Seminar: The Hispanic World

Full credit, meets 4 days/week

Prerequisites: AP Spanish Language 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, compare, and make connections to better understand the very diverse cultures of Spanish-speaking countries. The course will look at Spain, Latin America, and the Hispanic and Latino communities in the United States. Topics that may be covered include flamenco, the bull fight, the drastic political, social, and economic changes that have occurred in Spain since the end of Francisco Franco’s dictatorial regime, 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.

Approval requirements: at least minimum necessary grade in prerequisites and departmental approval; additional skills based assessment if warranted.