HORACE MANN SCHOOL

UPPER DIVISION

PROGRAM OF STUDIES

Academic Year 2023-2024
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Program Planning Schedule 2023-2024

Program of Studies distributed to students in Advisory meetings  Tuesday, April 11th

After receiving the Program of Studies, students should review the courses that are available to them and engage in conversations with their advisors and parents/guardians about their plans for the following year. They may also wish to confer with their Grade Dean, who is happy to advise and look at possible scenarios. Please note that parents/guardians and advisors must indicate their approval of a student’s course selections by signing the Course Request Form.

Submission of Students’ signed Course Request Forms to their Advisors  Tuesday, May 2nd

Online Registration  Tuesday, May 16th

Students will receive their finalized schedules in August.

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/First Aid

Health 1 & Health 2 (Physical Education & Health requirement)

HMO (ninth-grade Counseling & Guidance requirement)

College Counseling Workshop (Eleventh-grade requirement)

Advisory

Service Learning
Departmental 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 9 through 12.

History
Atlantic World History
United States History
One 300- or 400-level elective

Mathematics
Geometry
Algebra II & Trigonometry

Science
Biology
Chemistry or Physics

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

Arts
A total of two credits in grades 9 through 12, minimum. All students must take at least one half credit in studio/performance, and at least one half credit in appreciation.

Computer Science & Engineering
A total of one half credit in grades 9 through 12.

Counseling & Guidance
HMO in grade 9.

Physical Education & Health
Physical Education in grades 9 through 12, 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 with First Aid.
Health 1
Health 2
Service Learning

In the 2023-2024 academic year, the Upper Division requirement will be grade-wide Service-Learning Days. Attendance is required of each student 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 2022-2023 academic year.

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, while the HM 246 program meets weekly after school on Mondays. On Thursdays, we meet as a team for reflection, learning, and planning. Each of these programs partners with local community agencies. We plan and facilitate programs for elementary and middle school-aged participants, as well as for older adults.

Each program operates on a 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 email 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 recommendations for leisure 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 more than 57,000 books and DVDs, as well as many print and digital magazines. The Library has access to nearly half a million ebooks and audiobooks for both leisure reading and school projects. 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 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 a research classroom where classes meet to work with librarians and their teacher.

Throughout the school year, the Katz Library hosts a variety of special events, such as Library Spirit Day and Literary Lunch Chat. One of our most popular programs, Lit Chat is the semi-weekly book group meeting for Upper Division students. The discussions focus on books students are currently reading for leisure and for school, beloved books that are being made into movies or television series, and any other book-related topics.

Katz Library Hours
Monday-Thursday: 8:15-5:50pm
Friday: 8:15-3:30pm
Grade-by-Grade Course Lists

These are lists of likely courses by grade. Even in ninth grade, students will not have the same list of courses as all others in their grade. 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 9

Full-credit courses:

English 9
Atlantic World History
Geometry
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.

Half-credit courses:

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

Computer Science & Engineering Half-credit course recommended.

Additional requirements:

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

HMO
Advisory
Service Learning
Grade 10

Full-credit courses:

English 10

United States History

Algebra II & Trigonometry

Science

Chemistry or Physics Through Inquiry

World Languages

Usually level 3 or 3 Honors in their chosen language.

Half-credit courses:

At least one half-credit course recommended.

Arts

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

Computer Science & Engineering

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

Additional requirements:

Physical Education & Health

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

Advisory

Service Learning
Grade 11

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

**Full-credit courses:**

**English 11**

3 or 4 other full-credit courses

By the end of tenth 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 a given discipline once they have satisfied the minimum requirement. The courses listed here are the next courses in the sequence; note that they may be elective courses at this point.

**History**

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

**Mathematics**

Most students take one of three precalculus course options.

**Science**

Most students take Physics (or Chemistry, if Physics Through Inquiry was taken in the tenth grade). Students may take an elective course if the appropriate pre- or co-requisites have been fulfilled.

**World Languages**

Students usually take a Level 4, Studies course, or the next course in their sequence of study. In consultation with their Grade Dean, students may elect to study a new world language.
Half-credit courses:

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

**Computer Science & Engineering**
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:

**Physical Education & Health**
Students choose ONE: Concepts of Physical Fitness/Team and Life Sport, CPR/AED/First Aid, Lifeguarding, Learn to Swim, Health 2 (must be taken in eleventh or twelfth grade), Dance for PE credit, or Yoga for PE credit.

College Counseling Workshop
Advisory
Service Learning
## Grade 12

Note that student programs are certain to vary widely in grade 12. See each departmental listing for the available courses and their prerequisite and selection procedures.

### Full-credit courses:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English</strong></td>
<td>Students must enroll in either semester-long or year-long electives.</td>
</tr>
<tr>
<td><strong>3 or 4 other Full credit courses</strong></td>
<td>By the end of tenth 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.</td>
</tr>
<tr>
<td><strong>History</strong></td>
<td>Students are required to take a third year of History in either grade 11 or 12.</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td>Students may take a calculus course, and/or one of the other math electives offered each year.</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td>Students may take an elective course for which the appropriate pre- or co-requisites have been fulfilled.</td>
</tr>
<tr>
<td><strong>World Languages</strong></td>
<td>Students may take Level 4 or 5, a Studies course, or a Seminar class. In consultation with their Grade Dean, students may elect to study a new world language.</td>
</tr>
<tr>
<td><strong>Interdisciplinary</strong></td>
<td>Students may apply to do a full-credit Independent Study in place of another full-credit class.</td>
</tr>
</tbody>
</table>
Half-credit courses:

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

Arts

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

Computer Science & Engineering

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:

Physical Education & Health

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

Advisory

Service Learning
**Upper Division Course Number Designations**

- **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 fulfilled the prerequisite foundational coursework, typically taken in eleventh and twelfth grades

- **400-level**  
  Elective courses with substantial additional rigor; entry requires permission of the department.

- **200H / 300H / 400H-level**  
  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.

**400-Level Courses**

400-level courses involve a level of rigor that requires a strong understanding of foundational work in the field, and as such require departmental approval. The specific requirements are outlined in individual course descriptions. Students who wish to apply for 400-level courses should discuss their current work with the appropriate teachers and Department Chair and should discuss the workload that will be involved with their advisor. Students requesting more than three full-credit 400-level courses are subject to Grade Dean review.
Activities

Athletics
Students at Horace Mann have the opportunity to play on a number of athletic teams. Interscholastic athletics is a significant commitment, and students who plan to play on one or more 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>
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<tr>
<td>Boys’ Cross-Country (V)</td>
<td>Boys’ Basketball (JV,V)</td>
<td>Baseball (JV,V)</td>
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<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>
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<tr>
<td>Football (JV,V)</td>
<td>Girls’ Fencing (V)</td>
<td>Boys’ Golf (V)</td>
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<tr>
<td>Boys’ Soccer (JV,V)</td>
<td>Boys’ Skiing (V)</td>
<td>Girls’ Golf (V)</td>
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<tr>
<td>Girls’ Soccer (JV,V)</td>
<td>Girls’ Skiing (V)</td>
<td>Boys’ Lacrosse (JV,V)</td>
</tr>
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<td>Girls’ Tennis (JV,V)</td>
<td>Boys’ Squash (V)</td>
<td>Girls’ Lacrosse (JV,V)</td>
</tr>
<tr>
<td>Girls’ Volleyball (JV,V)</td>
<td>Girls’ Squash (V)</td>
<td>Girls’ Rugby (V)</td>
</tr>
<tr>
<td>Water Polo (JV, V)</td>
<td>Boys’ Swimming (V)</td>
<td>Girls’ Softball (JV,V)</td>
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<td></td>
<td>Girls’ Swimming (V)</td>
<td>Boys’ Tennis (JV,V)</td>
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<tr>
<td></td>
<td>Table Tennis (V)</td>
<td>Boys’ Track &amp; Field (V)</td>
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<tr>
<td></td>
<td>Boys’ Indoor Track (V)</td>
<td>Girls’ Track &amp; Field (V)</td>
</tr>
<tr>
<td></td>
<td>Girls’ Indoor Track (V)</td>
<td>Boys’ Volleyball (V)</td>
</tr>
<tr>
<td></td>
<td>Wrestling (JV,V)</td>
<td>Ultimate (V)</td>
</tr>
</tbody>
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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:

Bibliomann            The HuMannitarian  Prime
Business Mann         The Linguist          The Record
Cinemann              LitMag               The Review
Diagnosis             Mannikin             Spectrum
Folio 51              The Manntra          Voyager
For The Win           The Manuscript      Pixelated
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 engage in any of them. Most of the Upper Division’s active clubs are listed here:

- The ASL Awareness Club
- Autism Acceptance Club
- Automotive Engineering Club
- Bioethics Club
- Black Hair Care Club (BHCC)
- Cancer Awareness Club
- Chess Club
- Citymeals on Wheels
- Classics Society
- Crafts for Cancer
- Debate: Parliamentary Debate: Public Forum
- DECA
- Dungeons & Dragons Club
- East Wind West Wind
- Economics Club
- Ethics Bowl Club
- Excelsior
- Feminist Students Association
- FIRST Tech Challenge
- FRC Robotics 5806
- French Club
- Gender Sexuality Alliance (GSA)
- Green HM
- Happiness Club
- Healthier at HM
- HM Business League (HMBL)
- HM Chefs United for the Culture (HMCUFC)
- HM Criminal Justice Club (HMCJC)
- HM Dance Co. (HMDC)
- HM Evolutionary Biology Club
- HM Fitness
- HM for Islamic Awareness
- HM History Club
- HM Homelessness Outreach Club (HMHOHC)
- HM Music Outreach Club
- HM Speech Team
- HM SK8
- HM STEAM Coalition
- HM Theatre Company (HMTC)
- HM Film
- HM Hospital Outreach Club
- Jewish Culture Club
- Latinx Advocacy Club
- Math Team
- Mock Trial
- Model Congress
- Model United Nations
- Mott Haven Fridge @HM
- NYC Interfaith Network
- Poetry Out Loud
- Programming Club
- Saturday Morning Music Program
- Saturday Morning Tutoring
- Science Bowl
- Science Olympiad
- Scrabble & More
- Spirit Squad
- Sports Analytics
- Students in Medicine
- Tech Club
- Tests of Engineering, Aptitude, Math and Science (TEAMS)
- The Union
- Wellness Initiative Club
- When You Were Us
- Women in Business
- Zen Club
Arts: Music

The Arts curriculum balances performance and practice with careful academic study and analysis. Whether in Music, Theatre & Dance, 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 them with a framework for understanding how their endeavors relate to the larger artistic world.

Graduation Requirement:

A total of two credits in grades 9 through 12. 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 2023-24

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)
- Music Theory (ARTM 233)
- Music of NYC and the Birth of Disco, Punk & Hip-Hop (ARTM 234)

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)
- Piano Seminar (ARTM 414)
- Music Theory and Composition A (ARTM 415)
- Music Theory and Composition (ARTM 420)
- Topics in Music History Seminar (ARTM 421)

Courses Not Offered in 2023-24
- History of Music: Bach to Stravinsky (ARTM 232)
200-level courses:

**ARTM 210 – Glee Club**
*Half credit, meets five days in every ten-day cycle*
*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**
*Half credit, meets five days in every ten-day cycle*
*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 encouraged 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**
*Half credit, meets five days in every ten-day cycle*
*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  
*Half credit, meets five days in every ten-day cycle*
*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 it 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  
*Half credit, meets five days in every ten-day cycle*
*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  
*Half credit, meets five days in every ten-day cycle*
*Prerequisites: None*
*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  
Half credit, meets five days in every ten-day cycle  
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 to and analyze music to search for answers to these questions. Along the way, students will explore select examples of many different genres and expand their knowledge and awareness of contemporary music.

ARTM 231 - History of Jazz  
Half credit, meets five days in every ten-day cycle  
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 through ragtime, big band, be-bop, and fusion, the class 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 233 - Music Theory  
Half credit, meets five days in every ten-day cycle  
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.
**ARTM 234 – Music of NYC and the Birth of Disco, Punk & Hip-Hop**

*Half credit, meets five days in every ten-day cycle*

*Prerequisites: None*

*Appreciation credit*

This course explores the birth of disco, punk, and hip-hop and the marginalized communities in NYC that created them (namely, Black, Latinx, LGBTQ+, and counter-culture groups), the cultures that they in turn created, and what happens when counterculture goes “mainstream.” Through a careful exploration of the music itself, the key players, fashion, attitudes, and lasting legacies, this class investigates how time, place, and identity can combine to create music and art that can change the world.

**300-level courses:**

**ARTM 310 – Recording Studio Technology 2**

*Half credit, meets five days in every ten-day cycle*

*Prerequisites: Recording Studio Technology 1 (ARTM 215) and approval of the instructor*

*Open to students in grades 11-12*

*Studio/Performance credit*

The Recording Studio Technology 2 course provides an 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 410 - Chamber Winds**
*Half credit, meets five days in every ten-day cycle*
*Prerequisites: Audition and approval of the instructor*
*Co-requisite: Wind Ensemble (ARTM 214)*
*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 four times per year with additional opportunities available. Throughout the year, students 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 encouraged 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**
*Half credit, meets five days in every ten-day cycle*
*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 encouraged to take private lessons while in this ensemble. Participation in all dress rehearsals and concerts is required.

**ARTM 412 - Treble Choir**
*Half credit, meets five days in every ten-day cycle*
*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 encouraged to take private lessons while in this ensemble. Participation in all dress rehearsals and concerts is required.
ARTM 413 - String Sinfonietta
Half credit, meets five days in every ten-day cycle
Prerequisites: Audition and approval of the instructor
Co-requisite: Orchestra (ARTM 212)
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 encouraged and attendance at all dress rehearsals and concerts is mandatory.

ARTM 414 - Piano Seminar
Half credit, meets five days in every ten-day cycle
Prerequisites: Audition and approval of the instructor
Studio/Performance credit
The Piano Seminar is a select group of auditioned advanced piano students. The curriculum begins with a brief overview of Western classical music and styles, followed by an extensive study of music and styles of the 20th and 21st centuries, including avant-garde, jazz, non-Western music, Broadway, and improvisation. With in-class masterclasses, performances in and out of class, listening to and watching recordings of today's most significant concert pianists, and exploring extended techniques, this class aims to create a community for pianists to share their love of everything piano and expand upon their pianist tool kit.

ARTM 415 - Music Theory and Composition A
Half credit, meets five days in every ten-day cycle
Prerequisites: Music Theory (ARTM 233) and/or departmental approval
Open to students in Grades 11 and 12
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 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.
ARTM 420 - Music Theory and Composition
Full credit, meets 4 days/week
Prerequisites: Music Theory (ARTM 233) and/or departmental approval
Open to students in Grades 11 and 12
Appreciation credit
This course is designed to develop a student's ability to understand, manipulate, and create music. Through the creation of a large number of musical compositions, the analysis of form and structures, aural recognition, sight singing, and dictation, students will gain a deep understanding 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 robust portfolio of original compositions for a variety of instruments and ensembles.

ARTM 421 - 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 $2,000.
Courses Not Offered in 2023-24

**ARTM 232 - History of Music: Bach to Stravinsky**

[Not offered 2023-24]

*Half credit, meets five days in every ten-day cycle*

*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, as well as noteworthy composers and the cultures and times in which they created their work.
Arts: Theatre & Dance

The Arts curriculum balances performance and practice with careful academic study and analysis. Whether in Music, Theatre & Dance, 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 them with a framework for understanding how their endeavors relate to the larger artistic world.

Graduation Requirement:

A total of two credits in grades 9 through 12. All students must take at least one half credit in studio/performance, and at least one half credit in appreciation in any arts discipline.

Theatre & Dance (ARTD) Courses Offered in 2023-24

200-level
- Acting (ARTD 210)
- Stagecraft in School - Period H Crew (ARTD 211)
- Dance Workshop (ARTD 212 /PHED 212)
- Yoga & Meditation (ARTD 213/PHED 213)
- Dance in Historical and Cultural Perspective (ARTD 230)
- History of American Musical Theatre (ARTD 231)
- Performance in Major Theatre & Dance Productions (⅓ credit)
- Stagecraft Afterschool (¼ credit)

300-level
- Acting for the Camera (ARTD 310)
- Playwriting and Production (ARTD 311)
- Introduction to Design & Technical Theatre (ARTD 312)
- Dance Performance (ARTD 313 / PHED 313)

400-level
- Musical Theatre Performance (ARTD 410)
- Applied Design & Technical Theatre (ARTD 412)

Courses Not Offered in 2023-24
- Theatre Ensemble Seminar (ARTD 411)
200-level courses:

**ARTD 210 - Acting**  
*Half credit, meets five days in every ten-day cycle*  
*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 and Acting for the Camera.

**ARTD 211 - Stagecraft in School - Period H Crew**  
*Half credit, meets five days in every ten-day cycle*  
*Prerequisites: None*  
*Studio/Performance credit*

This is a full-year, half-credit course which meets during a regularly scheduled period during the school day. 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. Students in this course do not attend after-school classes and are not expected to run the backstage activities for the season’s productions.

**ARTD 212 - Dance Workshop for Arts Credit**  
**PHED 212 - Dance Workshop for PE Credit**  
*Half credit, meets five days in every ten-day cycle.*  
*Prerequisites: None*  
*Studio/Performance credit or PE credit*

Students taking part in a school sport are excused from class for the duration of their athletic season if they take the class for PE credit.  
Dance Workshop emphasizes the development of a strong technical base in American classical forms including Ballet, Modern, Jazz, Tap and Hip Hop, as well as Pilates and/or Yoga, and World Dance influences. Training includes warm-ups, improvisation, stretching exercises, and traveling combinations. Rhythmic awareness and the relationship between music and dance will be emphasized throughout.

Dance is a performing art and as such, there is the potential to share our work with the greater Horace Mann community throughout the
year. There will be one field trip included in this course. Attending this field trip (outside of school hours and off-campus) is mandatory. Additional assignments to encounter live dance of your own choice and on your own time may also be a part of this course.

**ARTD 213 - Yoga & Meditation for Arts Credit**
**PHED 213 – Yoga & Meditation for PE Credit**
*Half credit, meets five days in every ten-day cycle*
Prerequisites: None
Studio/Performance credit or PE credit
Students taking part in a school sport are excused from class for the duration of their athletic season if they take the class for PE 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.

**ARTD 230 - Dance in Historical and Cultural Perspective**
*Half credit, meets five days in every ten-day cycle*
Prerequisites: None
Appreciation credit
This course looks at dancing as it exists in a variety of world cultures, including our own, as social activity, an expression of religious beliefs, popular entertainment, and 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. There will be one field trip included in this course. Attending this field trip (outside of school hours and off-campus) is mandatory.
ARTD 231 - History of American Musical Theatre  
*Half credit, meets five days in every ten-day cycle*  
*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 a 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. There will be one field trip included in this course. Attending this field trip (outside of school hours and off-campus) is mandatory.

ARTD 201 - Performance in Major Theatre & Dance Productions  
*One third credit, meets Mondays, Wednesdays and Fridays from end of school until 5:45 pm.*  
*Prerequisites: Auditions*  
*Studio/Performance credit*  
Three fully-staged productions of world theatre are undertaken each year. Through them, students explore the art of theatre in all of its complexity. The Horace Mann Theatre Department 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 Department 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 year.

ARTD 202 - Stagecraft Afterschool  
*One quarter credit, meets Tuesdays and Thursdays from end of school until 5:45pm.*  
*Prerequisites: None*  
*Studio/Performance credit*  
Five fully-staged productions are undertaken each year. Through them, students explore the art of theatre in all of its complexity. The Horace Mann Department of Theatre and Dance 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 attend crew on one of the first three crew days in a quarter and commit to the Technical Crew for that quarter. The faculty will register the members of the class at the end of the second week of meetings.
300-level courses:

**ARTD 310 - Acting for the Camera**
*Half credit, meets five days in every ten-day cycle*
*Prerequisites: Acting (ARTD 210) or performance credit in at least two major HM Upper Division productions*
*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 for the Camera are applied to performances in a variety of formats, including film, 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 may collaborate with students taking Filmmaking 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. On-camera performances are shared with the larger Horace Mann community at least once a semester as a course requirement.

**ARTD 311 - Playwriting and Production**
*Half credit, meets five days in every ten-day cycle*
*Prerequisites: Submission of a short scene and approval of the instructor*
*Grades 10-12*
*Studio/Performance credit*
Playwriting 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 rewriting. All class members are expected to act in readings and participate in lively discussions on writing techniques. Attending performances outside of Horace Mann and all HM productions is a requirement of the course. 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.
ARTD 312 - Introduction to Design & Technical Theatre
Half credit, meets five days in every ten-day cycle
Prerequisites: None
Studio/Performance credit
Intro to Design & Technical Theatre introduces Upper Division students to the tools and techniques necessary to the process of designing for the theatre. Students explore how design choices are used as a storytelling mechanism, and how the design process will apply to creative endeavors both within the theatre, such as plays, musicals, dance or opera, as well as outside of the walls of the theatre. Students work in a variety of media as they explore scenic, lighting and costume design for the theatre. Skills and tools include: drafting of plans and elevations, scale model making, color rendering, CAD lighting plots, sketching and rendering. Emphasis is placed on the clear communication of the student’s design ideas and their personal interpretation of theatrical texts. Completion of the course allows students to be eligible to design for the Theatre and Dance production season. There will be one field trip included in this course. Attending this field trip (outside of school hours and off-campus) is mandatory.

ARTD 313 - Dance Performance for Arts Credit
PHED 313 - Dance Performance for PE Credit
Half credit, meets five days in every ten-day cycle
Prerequisites: Approval of the instructor
Participation in after-school sports does not exempt students from Dance Performance.
Studio/Performance 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. There will be one field trip included in this course. Attending this field trip (outside of school hours and off-campus) is mandatory.
400-level courses:

**ARTD 410 – Musical Theatre Performance**

Half credit, meets five days in every ten-day cycle  
Prerequisites: At least one credit (two 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, and departmental approval. 
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. There will be one field trip included in this course. Attending this field trip (outside of school hours and off-campus) is mandatory.

**ARTD 412 – Applied Design & Technical Theatre**

Half credit, meets five days in every ten-day cycle  
Prerequisites: Intro to Design and Technical Theatre (ARTD 312), and departmental approval.  
Grades 10-12  
Studio/Performance credit  
This class is a continuation of concepts studied in Intro to Design and Technical Theatre. Students work on further refining their skills in drafting, model making, color rendering and textual analysis. This course allows for more in-depth discussions of design production and text. Collaborative design thinking processes are the basis of this course. Students have the opportunity to develop designs for Horace Mann School main stage productions in theatre and dance, in addition to portfolio pieces and theoretical design projects. There will be one field trip included in this course. Attending this field trip (outside of school hours and off-campus) is mandatory.
Courses Not Offered in 2023-24

ARTD 411- Theatre Ensemble Seminar
[Not offered 2023-24]
Half credit, meets five days in every ten-day cycle
Prerequisites: Departmental approval; priority is given to students who have previously been in two HM Upper Division productions or taken one or more classes within the Theatre and Dance Department.
Grades 10-12
Studio/Performance credit
Theatre Ensemble Seminar is for curious and motivated students looking to broaden their theatrical studies. Units of study include advanced performance styles, directing, playwriting, devised theatre and more. The course emphasizes play production. Over the course of each semester students will work together to produce a performance to be shared with the school community. In the first semester students will be working to produce a published play. The second semester will focus on an original piece that will be devised within the class. There will be one field trip included in this course. Attending this field trip (outside of school hours and off-campus) is mandatory.
Arts: Visual Arts

The Arts curriculum balances performance and practice with careful academic study and analysis. Whether in Music, Theatre & Dance, 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 them with a framework for understanding how their endeavors relate to the larger artistic world.

Graduation Requirement:

A total of two credits in grades 9 through 12. All students must take at least one half credit in studio/performance, and at least one half credit in appreciation in any arts discipline.

Visual Arts (ARTV) Courses Offered in 2023-24

200-level
- Ceramics 1: Introduction to Ceramics (ARTV 210)
- Drawing and Painting 1: Foundations (ARTV 211)
- Sculpture 1: Introduction to Sculpture (ARTV 212)
- Printmaking 1: Introduction to Printmaking (ARTV 213)
- Photography 1: Foundations (ARTV 214)
- Filmmaking 1: The Art of Visual Storytelling (ARTV 215)
- Art History: Art of the Ancient World (ARTV 216)
- Art History: Contemporary Art (ARTV 217)
- Film History 1: From Talkies to TikToks (ARTV 226)
- Ceramics 2: Practice & Application (ARTV 250)
- Drawing and Painting 2: Naturalism, Abstraction, and Imagination (ARTV 251)
- Sculpture 2: Mixed Media (ARTV 252)
- Printmaking 2: Experimental Printmaking (ARTV 253)
- Photography 2: Digital (ARTV 254)
- Filmmaking 2: Field and Studio Production (ARTV 255)
300-level
- Ceramics 3: Complex Forms and Surfaces (ARTV 310)
- Drawing and Painting 3: Advanced Techniques (ARTV 311)
- Sculpture 3: Contemporary Sculpture and Installation (ARTV 312)
- Printmaking 3: Themes and Variations (ARTV 313)
- Photography 3: Fine Art + Commerce (ARTV 314)
- Filmmaking 3: Creating the Short Film (ARTV 315)
- Film History 2: Scene by Scene (ARTV 326)

400-level Half-credit courses
- Directed Study in Ceramics A (ARTV 410)
- Directed Study in Drawing & Paintings A (ARTV 411)
- Directed Study in Sculpture A (ARTV 412)
- Directed Study in Printmaking A (ARTV 413)
- Directed Study in Photography A (ARTV 414)
- Directed Study in Filmmaking A (ARTV 415)
- Seminar in Art History: Imagination and Fantasy in Global Art (ARTV 418.2)

400-level Full-credit courses
- Directed Study in Ceramics (ARTV 420)
- Directed Study in Drawing & Painting (ARTV 421)
- Directed Study in Sculpture (ARTV 422)
- Directed Study in Photography (ARTV 424)
- Directed Study in Filmmaking: Advanced Filmmakers Workshop (ARTV 425)
- Art History: What is a Masterpiece? (ARTV 428)

Courses Not Offered in 2023-24
- Art History: Renaissance Art (ARTV 218)
- Art History: Global Architecture (ARTV 219)
- Art History: The Power of Images (ARTV 316)
- Seminar in Art History: Portraiture and Construction of Identities (ARTV 418.1)
- Directed Study in Art History A (ARTV 419)
- Directed Study in Art History (ARTV 429)
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.
200-level courses:

**ARTV 210 - Ceramics 1: Introduction to Ceramics**
Half credit, meets five days in every ten-day cycle  
Prerequisites: None  
Studio/Performance credit  
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 ceramics.

**ARTV 211 - Drawing & Painting 1: Foundations**
Half credit, meets five days in every ten-day cycle  
Prerequisites: None  
Studio/Performance credit  
Drawing & Painting 1 is an introduction to the fundamentals of drawing and painting, this course develops skills in basic design concepts. Students will create, write, and reflect on their artistic process, moving from concept to finished art, and build their digital portfolio. Students will learn traditional conventions of representation while developing the confidence and ability to express their individual and unique perceptions.

**ARTV 212 - Sculpture 1: Introduction to Sculpture**
Half credit, meets five days in every ten-day cycle  
Prerequisites: None  
Studio/Performance credit  
Sculpture 1 is an introduction to fundamental sculpture materials and techniques. Students will work with their hands to mold, cast, carve, and assemble a variety of materials such as wire, plaster, papier-mache, foam, and cardboard. Traditional techniques will be explored to learn how to manipulate form and space, as well as develop creativity and problem solving skills through the process.

**ARTV 213 - Printmaking 1: Introduction to Printmaking**
Half credit, meets five days in every ten-day cycle  
Prerequisites: None  
Studio/Performance credit  
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.
ARTV 214 - Photography 1: Foundations
Half credit, meets five days in every ten-day cycle
Prerequisites: None
Studio/Performance credit
Photography 1 is an introductory photography course in which students learn the fundamentals of composition, capturing light, and exposure. Students will be taught how to “see” a photo, rather than take one. Both 35mm film cameras and digital cameras are introduced throughout the year as students learn to roll, develop, and print traditional black & white and color film. Most of the year will be spent utilizing the darkroom.

ARTV 215 - Filmmaking 1: The Art of Visual Storytelling
Half credit, meets five days in every ten-day cycle
Prerequisites: None
Studio/Performance credit
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.

ARTV 216 - Art History: Art of the Ancient World
Half credit, meets five days in every ten-day cycle
Prerequisites: None
Appreciation credit
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 at 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 classes, 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
Half credit, meets five days in every ten-day cycle
Prerequisites: None
Appreciation credit
This course introduces students to architecture, painting, sculpture, and other media created by artists from the 19th century to the
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 226 - Film History 1: From Talkies to TikToks**
*Half credit, meets five days in every ten-day cycle*

**Prerequisites: None**

**Appreciation credit**

Film History 1 offers a window into the world of cinema through the exploration of classic and contemporary films. Screenings of seminal films accompany discussions as we develop critical tools to analyze, contextualize, and appreciate the artform of the moving image. Students become versed in the language of film as we introduce the crafts of screenwriting, directing, editing, cinematography, costuming/makeup, production design, sound design, and sound editing.

**ARTV 250 - Ceramics 2: The Pottery Wheel**
*Half credit, meets five days in every ten-day cycle*

**Prerequisites: Ceramics 1 (ARTV 210) or departmental approval**

**Studio/Performance credit**

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 Ceramics 1 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 creative input.

**ARTV 251 - Drawing & Painting 2: Practice and Application**
*Half credit, meets five days in every ten-day cycle*

**Prerequisites: Drawing & Painting 1 (ARTV 211)**

**Studio/Performance credit**

Students will dive further into the principals and elements of design. Students will enhance their visual vocabulary through units that cover Perspective, Structural/Gestural Anatomy, and Color Theory through newly introduced media. Students will create, write, and reflect on their artistic process, go from concept to finished art, while building their digital portfolio, which will already contain cumulative work from the previous class. Through traditional conventions of representation,
students will gain the confidence and ability to visually communicate their thoughts aesthetically and with clarity.

**ARTV 252 - Sculpture 2: Mixed Media**
*Half credit, meets five days in every ten-day cycle*
**Prerequisites:** Sculpture 1 (ARTV 212)
**Studio/Performance credit**
Sculpture 2 is focused on exploring more advanced three-dimensional materials and techniques, as well as developing craftsmanship. Students will be introduced to a wider range of media, such as fabric, metal, wood, and resin, while also considering how they can be combined together to express their ideas. Examples from artists from around the world will be introduced to inspire new concepts and approaches to sculpture.

**ARTV 253 - Printmaking 2: Experimental Printmaking**
*Half credit, meets five days in every ten-day cycle*
**Prerequisites:** Printmaking 1 (ARTV 214)
**Studio/Performance credit**
Printmaking 2 will develop further upon printmaking methods learned in Printmaking 1 as well as introduce 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.

**ARTV 254 - Photography 2: Digital**
*Half credit, meets five days in every ten-day cycle*
**Prerequisites:** Photography 1
**Studio/Performance credit**
Students will learn how to use a DSLR Camera as they explore the world of digital photography. An emphasis is placed on portraiture both in the studio and 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, learning various technological methods for the manipulation of images, and digital printing. Photoshop and Capture One Pro will be taught to help students edit and manage their photographs.

**ARTV 255 - Filmmaking 2: Field and Studio Production**
*Half credit, meets five days in every ten-day cycle*
**Prerequisites:** Filmmaking 1 (ARTV 215)
**Studio/Performance credit**
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 310 - Ceramics 3: Complex Forms and Surfaces**  
*Half credit, meets five days in every ten-day cycle*  
*Prerequisites: Ceramics 2 (ARTV 250) or departmental approval*  
*Studio/Performance credit*  
Ceramics 3 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 311 - Drawing & Painting 3: Advanced Techniques**  
*Half credit, meets five days in every ten-day cycle*  
*Prerequisites: Drawing and Painting 2 (ARTV 251) or departmental approval*  
*Studio/Performance credit*  
In this advanced course, students will push their technical and conceptual skills. They will develop their knowledge of materials by experimenting with new mixed media approaches to art making. Students will be encouraged to stretch the scale and imagination of their projects, as well as continue to write and reflect on their artistic process while developing their own self-guided projects. They will plan and organize a show of their work in the gallery. Students will have an advanced digital portfolio by the end of this course.

**ARTV 312 - Sculpture 3: Contemporary Sculpture and Installation**  
*Half credit, meets five days in every ten-day cycle*  
*Prerequisites: Sculpture 2 (ARTV 252) or departmental approval*  
*Studio/Performance credit*  
Sculpture 3 expands on Sculpture 1 and Sculpture 2 to incorporate contemporary concepts and materials used by artists today, such as light, sound, site, and interaction. Current themes in art will be explored through artist examples, and students will determine the materials and techniques they want to use within those themes. The class will also collaborate throughout the year in developing sculptures and installations to bring art to spaces around HM.
ARTV 313 - Printmaking 3: Themes and Variations
Half credit, meets five days in every ten-day cycle
Prerequisites: Printmaking 2 (ARTV 253) or departmental approval
Studio/Performance credit
Printmaking 3 will allow advanced students to develop 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.

ARTV 314 - Photography 3: Fine Art + Commerce
Half credit, meets five days in every ten-day cycle
Prerequisites: Photography 2 (ARTV 254) or departmental approval
Studio/Performance credit
Photography 3 focuses on teaching a depth of knowledge in one particular medium, and specifically, the ways it can be used for fine art and commercial photography. In the first half of the year, students use medium-format photography to create a select number of large prints using the Yashica Mat camera. They will primarily focus on cityscape/landscape and studio photography in order to plan and develop an artistic vision. In the second half of the year, students will learn and practice photography techniques used in commercial, fashion, and editorial image-making.

ARTV 315 - Filmmaking 3: Creating the Short Film
Half credit, meets five days in every ten-day cycle
Prerequisites: Filmmaking 2 (ARTV 255)
Studio/Performance credit
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 326 - Film History 2: Scene by Scene
Half credit, meets five days in every ten-day cycle
Prerequisites: Film History 1: From Talkies to TikToks (ARTV 226)
Appreciation credit
Film History 2 examines the various technical and creative processes of cinematic artistry. The close watching of specific scenes will explore the meaning and purpose of film as a medium. Some topics surrounding this art of visual storytelling will include genre and archetypes; themes and motifs; visual poetry; active viewership versus spectatorship; and the Gaze.

400-level half-credit courses:

ARTV 410 - Directed Study in Ceramics A
Half credit, meets five days in every ten-day cycle
Prerequisites: Ceramics 3 (ARTV 316) and departmental approval
Studio/Performance credit
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.

ARTV 411 - Directed Study in Drawing and Painting A
Half credit, meets five days in every ten-day cycle
Prerequisites: Drawing Painting 3 (ARTV311) and departmental approval
Studio/Performance credit
This is a half-credit course that offers the most advanced students the opportunity to propose and develop their personal vision through “Sustained Investigation.” The instructor will guide students with advice and technical help in the realization of their concepts. Investigations might include graphic novels, abstraction, or use of unexpected materials and techniques. Each piece will be accompanied by a written artist statement and included in the student’s digital portfolio. There will be scheduled days for students to present their work to their peers for reflections. The culmination of this work will be shown as part of the end-of-the-year gallery show.

ARTV 412 - Directed Study in Sculpture A
Half credit, meets five days in every ten-day cycle
Prerequisites: Sculpture 3 (ARTV 312) and departmental approval
Studio/Performance credit
Students will create a body of sculptural works within a personal theme. They 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 of brainstorming, in-progress feedback, and final critiques. The instructor will be available for advice and technical help.
ARTV 413 – Directed Study in Printmaking A
Half credit, meets five days in every ten-day cycle
Prerequisites: Printmaking 3 (ARTV 313) and departmental approval
Studio/Performance credit
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. Students will come together to give one another feedback throughout the process of brainstorming, in-progress feedback, and final critiques. The instructor will be available for advice and technical help with their vision.

ARTV 414 - Directed Study in Photography A
Half credit, meets five days in every ten-day cycle
Prerequisites: Photography 3 (ARTV 314) and departmental approval
Studio/Performance credit
Students will create a body of work that illuminates a central theme while using multiple image-making processes. An emphasis will be placed on creativity, ethics, and diversity within the visual arts. Projects might include but are not limited to: pinhole photography, Lomography, installation work, pop art, alternative processing, Polaroids, creative studio techniques, and portraiture with a 4x5 camera. Additional camera and alternative processing assignments include polaroid photography, cyanotypes, and salt prints.

ARTV 415 - Directed Study in Filmmaking A
Half credit, meets five days in every ten-day cycle
Prerequisites: Filmmaking 3 (ARTV 255) and departmental approval
Studio/Performance credit
Directed Study in Filmmaking is a course in which students act collaboratively as writers, directors, editors, sound recordists, cinematographers, and lighting designers. Rotating crew positions throughout the year, these young filmmakers support each other’s visions and learn the technical skills that are necessary to ensure mutual success on all projects. 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 include topics such as Shot Language, Mise-en-Scène, Production Design, Creating Shooting Schedules and Call Sheets, and Multi-Track Editing.
ARTV 418.2 - Seminar in Art History: Imagination and Fantasy in Global Art

Half credit, meets five days in every ten-day cycle
Prerequisites: 200 or 300-level art history class and/or departmental approval; only open to grades 11-12

Appreciation credit

The terms “Imagination” and “Fantasy” have historical connotations and contemporary implications. Students will get to explore works of art of their choosing, and consider 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.

400-level full-credit courses:

ARTV 420 - Directed Study in Ceramics

Full credit, meets 4 days/week
Prerequisites: Ceramics 3 (ARTV 310) and departmental approval

Studio/Performance credit

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.

ARTV 421 - Directed Study in Drawing and Painting

Full credit, meets 4 days/week
Prerequisites: Drawing & Painting 3 (ARTV 311) and departmental approval

Studio/Performance credit

This is a full-credit course that offers the most advanced students the opportunity to propose and develop their personal vision through “Sustained Investigation.” The instructor will guide students with advice and technical help in the realization of their concepts. Investigations might include graphic novels, abstraction, or use of unexpected materials and techniques. Each piece will be accompanied with a written artist statement and included in their digital portfolio. There will be scheduled days when students will present their work to their peers for reflections. The culmination of this work will be shown as part of the end-of-the-year show.
**ARTV 422 - Directed Study in Sculpture**

*Full credit, meets 4 days/week*

**Prerequisites:** Sculpture 3 (ARTV 312) and departmental approval

**Studio/Performance credit**

Students will create a body of sculptural works within a personal theme. 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 of brainstorming, in-progress feedback, and final critiques. The instructor will be available for advice and technical help.

**ARTV 424 - Directed Study in Photography**

*Full credit, meets 4 days/week*

**Prerequisites:** Photography 3 (ARTV 314) and departmental approval.

**Studio/Performance credit**

Students will create a body of work that illuminates a central theme while using multiple image-making processes. An emphasis will be placed on creativity, ethics, and diversity within the visual arts. Projects might include but are not limited to: pinhole photography, Lomography, installation work, pop art, alternative processing, Polaroids, creative studio techniques, and portraiture with a 4x5 camera. Additional camera and alternative processing assignments include polaroid photography, cyanotypes, and salt prints.

**ARTV 425 - Directed Study in Filmmaking**

*Full credit, meets 4 days/week*

**Prerequisites:** Filmmaking 3 (ARTV 255) and departmental approval

**Studio/Performance credit**

Directed Study in Filmmaking is a course in which students act collaboratively as Writers, Directors, Editors, Sound Recordists, Cinematographers, and Lighting Designers. Rotating crew positions throughout the year, these young filmmakers support each other’s visions and learn the technical skills that are necessary to ensure mutual success on all projects. 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 include topics such as Shot Language, Mise-en-Scène, Production Design, Creating Shooting Schedules and Call Sheets, and Multi-Track Editing.
ARTV 428 - Art History: What is a Masterpiece?

Full credit, meets 4 days/week  
Prerequisites: Departmental approval; only open to grades 11-12  
Appreciation credit

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.

Courses Not Offered in 2023-24

ARTV 219 - Art History: Global Architecture  
[Not offered in 2023-24]  
Half credit, meets five days in every ten-day cycle  
Prerequisites: None  
Appreciation credit

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, and 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 habitable or functional and yet are built.
ARTV 218 - Art History: Renaissance Art  
[Not offered in 2023-24]  
Half credit, meets five days in every ten-day cycle  
Prerequisites: None  
Appreciation credit  
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 philosophy 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 2023-24]  
Half credit, meets five days in every ten-day cycle  
Prerequisites: Open to all eleventh/twelfth graders and to tenth graders who have taken a 200-level Art History course.  
Appreciation credit  
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 418.1 - Seminar in Art History: Portraiture and Construction of Identities
[Not offered in 2023-24]
Half credit, meets five days in every ten-day cycle
Prerequisites: 200 or 300-level art history class and/or departmental approval; only open to grades 11-12
 Appreciation credit

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. By focusing on portraiture and the way we construct, understand, and interpret identities, students study works that range from the Mona Lisa to selfies, TikToks, and anything that they want to pursue within the very broad category of “portraiture.”

ARTV 426 - Directed Study in Art History (ARTV 429)
[Not offered in 2023-24]
Full credit, meets 4 days/week.
Prerequisites: 200 or 300-level art history class and/or departmental approval; only open to grades 11-12
 Appreciation credit

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.
Computer Science and Engineering

Requirements:

Half-credit course in grades 9-12

Courses Offered in 2023-2024

Half-credit courses

- Introduction to Computer Science (CMPE 211)
- Introduction to Engineering (CMPE 215)
- Intermediate Computer Science (CMPE 320)
- Ethical Hacking and Network Penetration (CMPE 321)
- macOS and iOS Development (CMPE 322)
- Web Application Development (CMPE 323)
- Production Engineering Workshop (CMPE 325)
- Theoretical Computer Science (CMPE 410)

Full-credit courses

- Art of Data (CMPE 411)
- Computer Science Seminar (CMPE 431.1):
  Video Game Design and Development, Linux OS Development
- Challenges in Engineering (CMPE 435)
Computer Science and Engineering

At a time when technology in the modern world is rapidly evolving, the curriculum in the Department of Computer Science and Engineering fosters the technical proficiency that will enable our students to use and produce applications and solutions effectively. To this purpose, the sequence of courses is continuously adapted in accordance with current advances in technology, while building on historical best practices. 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, the art of programming, and the processes of engineering. The Department of Computer Science and Engineering offers a range of introductory and advanced opportunities in the field of computer technology and methodical thinking. These courses cover topics including programming, robotics, and engineering.

Requirement:
One half-credit course in grades 9 through 12.

200-level courses:

CMPE 211 – Introduction to Computer Science
Half credit, meets five days in every ten-day cycle
Prerequisites: None
This course focuses on the fundamentals of computer hardware architecture, computer programming, as well as user interface (UI) design. Students will gain a historical understanding of the evolution of computers from their inception to the present. Students will work individually to create personalized programs emphasizing core programming concepts, using Java within the Processing Integrated Development Environment (IDE). The skills developed in this course will prepare students to take more advanced courses, such as intermediate programming, during their tenure at Horace Mann. Students will also explore the global impact of technology and associated ethical implications.

CMPE 215 - Introduction to Engineering
Half credit, meets five days in every ten-day cycle
Prerequisites: None
This course encourages creativity and celebrates ingenious solutions to engineering and mechanical problems through the design and construction of purpose-built devices and processes. Students in this
course will learn the Engineering Design Process through project-based lessons and will use the facilities in our Robotics Innovations Lab to design, construct, and improve upon new and existing physical objects. Students will gain foundational knowledge of engineering design concepts through the use of technical drawings and CAD (Computer Aided Design).

300-level courses:

**CMPE 320 - Intermediate Computer Science**  
*Half credit, meets five days in every ten-day cycle*  
*Prerequisites: Introduction to Computer Science (CMPE 211) or departmental approval*  
This course explores the theory and practice of object-oriented programming, the integration of software components into a large-scale software architecture. Software development in this way represents the next logical step after learning programming fundamentals, allowing for the creation of sprawling programs. Students will work individually, as well as in groups, to create unique programs written in Java. Through the use of an Integrated Development Environment (IDE), students will gain a foundational knowledge of programming concepts such as object/class relationships, modularization, abstraction, parameter passing, recursion, method calling and declaration. By the end of the course, students will have a solid foundation in Java and object-oriented design, as well as many software development concepts that can be applied to any language.

**CMPE 321 – Ethical Hacking and Network Penetration**  
*Half credit, meets five days in every ten-day cycle*  
*Prerequisites: Introduction to Computer Science (CMPE 211) or departmental approval*  
This course explores the process of discovering and protecting against exploits that are present in various computer systems and networks. Ethical hacking is used as a common and favored process to analyze the security systems and programs of an organization. This unique learning experience will utilize Kali Linux to perform penetration testing. In addition to teaching students about the latest ethical hacking tools and techniques, students will apply these techniques to hardened computer systems on a closed, private network. Given the increased reliance on cloud-based storage systems, it is becoming increasingly important to proactively test and secure network vulnerabilities.
CMPE 322 – macOS and iOS Development
Half credit, meets five days in every ten-day cycle
Prerequisites: Introduction to Computer Science (CMPE 211) or departmental approval
macOS and iOS Development will explore the application design process through Xcode, Apple's professional integrated development environment (IDE). Students will gain a thorough understanding of Swift, the default programming language for Apple devices, and associated application frameworks. Students will learn how to build database-driven applications, create hybrid applications for iPhone and iPad, leverage remote data sources, and study the art of design to build visually appealing applications. Students will learn how to incorporate third-party frameworks to build feature-rich applications of their design and choosing. Students will work individually and in teams to build various applications that can be deployed to devices in the Apple ecosystem.

CMPE 323 - Web Application Development
Half credit, meets five days in every ten-day cycle
Prerequisite: Introduction to Computer Science (CMPE 211) or departmental approval
This course will study the design and construction process of responsive web development. Students will explore front-end and back-end design, web application development, and deployment. To facilitate this, students will gain a foundational knowledge of HTML, CSS, PHP, and JavaScript. Further, students will incorporate MySQL databases into their dynamic web applications and explore common content management systems (CMS) such as Tumblr and WordPress. This course culminates with a portfolio of work that includes a fully-functioning, unique website.

CMPE 325 - Production Engineering Workshop
Half credit, meets five days in every ten-day cycle
Prerequisites: Introduction to Engineering (CMPE 215) or departmental approval
Students will learn how to bring a physical product to life. From the drawing board to the customer’s hands - how is a product successfully mass produced? In the Production Engineering Workshop, students will work together as a team to design a product to be manufactured entirely within our Robotics and Innovation Lab, using our advanced equipment. Students will learn and then apply the theories of production, procurement, and design engineering to fabricate a product of their own development. From the ideation of the product, through the purchasing of materials, to the design, build and running of the assembly line, to the storage and distribution of product, students will execute all aspects of the Production
Engineering process in this student-run course. This course is designed to engage a variety of students with interests ranging from engineering, design, and fabrication to entrepreneurship, business management, budgeting, and more.

400-level half-credit courses:

**CMPE 410 - Theoretical Computer Science**
*Half credit, meets five days in every ten-day cycle*

*Prerequisites: Intermediate Computer Science (CMPE 320) and departmental approval*

Theoretical Computer Science provides students with an overview of the theoretical underpinnings of computer science, as well as the skills necessary to pursue further research on their own. Students in this class learn about and write code for several notable algorithms, but a large portion of the class time focuses on the mathematical underpinnings of computer science including pure logic, graph theory, and automata theory. Students also each take a turn leading a class session related to their own computer science interests with a goal of learning how to engage, challenge, and/or inspire an audience of peers. Students explore algorithmic correctness and efficiency and build toward understanding the core of the famous unsolved P vs. NP problem.

400-level full-credit courses

**CMPE 411 - Art of Data**
*Full credit, meets 4 days/week*

*Prerequisites: Intermediate Computer Science (CMPE 320) and departmental approval*

Art of Data prepares students to collect, evaluate, investigate, and present data. Students build their toolboxes of coding skills and apply those tools to address real-world problems. Students learn not only how to answer questions with data, but also how to ask good questions. Students also take turns leading class sessions related to their own computer science interests with a goal of learning how to engage, challenge, and/or inspire an audience of peers. Throughout this course, students create several original pieces of work culminating with a final project that can be a portfolio piece for them for the rest of their lives. This course runs much like a workshop, with student interest guiding the directions of exploration and much of class time being dedicated to original work.
CMPE 431 - Computer Science Seminar: Video Game Design and Development, Linux Operating System Development

Full credit, meets 4 days/week

Prerequisites: Intermediate Computer Science (CMPE 320) and departmental approval

Computer Science Seminar will focus on two topics for the 2023-2024 school year: video game development and Linux operating system development.

Semester 1

Narrative game design has become increasingly popular in recent years with an influx of sophisticated, graphically appealing game titles. This course will explore video game development through Unity (a cross-platform game design environment) and Blender (an open-source 3D modeling application). Students will gain an advanced understanding of JavaScript and C# as they build feature-rich gaming environments. User experience plays a major role in game development, and this course will explore how to create musical elements, appealing user interfaces, and graphical elements in tandem with programming.

Semester 2

Linux operating system development will explore the process of designing, developing, and packaging a custom Linux-based operating system based on the work of Linus Torvald. Students will gain an advanced knowledge of various shell scripting environments such as the Bourne Again Shell (BASH), KornShell (KSH), and Z Shell (ZSH). Through an open-source, package-based approach, students will build a custom operating system from the Kernel level and will add packages that include a networking stack, file system management, and graphical user environments (GUI) utilizing GNOME and KDE. Each operating system will be entirely unique to the student designer.
CMPE 435 - Challenges in Engineering
Full credit, meets 4 days/week
Prerequisites: Production Engineering Workshop (CMPE 325) and departmental approval
Challenges in Engineering is a survey-style course that focuses on solving real-world problems through the study of varied engineering disciplines. In this team-based course, students will use their knowledge of engineering principles to design and build a solution to a specific problem. For example, students might produce a working prototype of a basic water filtration system that can be made with readily available materials, design and build a mobile bridge, or research and propose various and implementable composting measures for Horace Mann. Students will work in small teams to tackle these challenges, with students taking on new and exciting roles within each project and team. Each project will involve learning subject-specific knowledge, which will inform and guide the eventual solution for each engineering challenge.
Counseling & Guidance

Requirements:

Grade 9 Horace Mann Orientation (GUID 110)

Elective Courses in 2023-24

- Introduction to Psychology (PSYC 310)
- Ethics in School and Society (GUID 311)
- Studies in Psychology: Biological, Clinical, Developmental, and Social Psychology (PSYC 410)
100-level courses:

**GUID 110 - Horace Mann Orientation**

_Ninth-grade requirement, meets 1 day/week_

*Prerequisites: None*

HMO is a weekly, discussion-based course for ninth-grade students that runs throughout the first semester. Co-taught by HM faculty members and eleventh- and twelfth-grade HMO Peer Leaders, this course supports ninth-grade students in their adjustment to the Upper Division and introduces them to HM community norms and values. It fosters connections between ninth-grade students and their HMO Peer Leaders, who share information about important resources and support systems within the school, HM clubs and publications, service learning, athletics, study skills, and balancing academics, social interests, and extracurricular activities. Through guided discussion of media clips and various scenarios, students will consider how identity, culture and human development influence their behavior and decision-making and how to responsibly navigate social situations and friendships. A presentation and follow-up visit to the class by representatives of the New York Society for the Prevention of Cruelty Against Children (NYSPCC) will educate students about sexual abuse and consent. HMO teachers include Grade 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 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. Topics 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. The course will incorporate discussion, film, media, collaborative and creative projects, readings, and lectures. Papers and projects challenge students to apply theories to analyze their own lives, fictional characters, and current events.
GUID 311 - Ethics in School and Society

Full credit, meets 4 days/week

Prerequisites: None

This elective will serve as a journey through the theory and practice of ethics in school and society. From Aristotle, to Rawls, to Caplan, the first semester encourages critical thinking about fundamental problems that concern existence, knowledge, and value. Students are introduced to the major ethical theories of utilitarianism, deontology, virtue ethics, natural law theory, social contract theory, egoism, and relativism. The second semester will call upon content mastered during the first semester to aid in a deep dive into the study of artificial intelligence (AI), bioethics, and three topics selected by the class. Students will gain a basic understanding of systems of ethics, as well as current controversies and ethical thought in action. Along with readings and lectures, classes will include Socratic-style discussions and debates, video and audio presentations, and an emphasis on student-directed inquiry. The class will engage in individual and group projects in order to act, learn, and reflect on central ethical and moral issues. The Ethics class is a welcoming and safe space for new ideas with the understanding that our own ideas may not be without flaws. Collectively, our discussions and presentation will work to avoid ad hominem (Latin for “to the man”) rebuttals; we’ll focus on the issues, theories or facts presented, not the person presenting.
400-level courses:

**PSYC 410 – Studies in Psychology: Biological, Clinical, Developmental, and Social Psychology**

*Full credit, meets 4 days/week*

*Prerequisites: Introduction to Psychology (PSYC 310), departmental approval.*

This course builds upon the knowledge and skills developed in Introduction to Psychology by exploring four subfields in greater depth: 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, fieldwork, debate, video and audio presentation, along with readings and lectures. The overarching goals of the course are to: build upon students’ interests by allowing them to investigate their own questions; examine the human condition from multiple perspectives; enhance self-awareness and sensitivity to individual differences; and develop research and writing skills in the discipline.
English

Requirements:

Continuous enrollment in English, grades 9 through 12.

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)
- Seminar in Literary Studies: Critical Theories of Gender, Race, Sexuality, and Ability (ENGL 410.3)
- Seminar in Literary Studies: Interactive Literature (ENGL 410.4)
English

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 the practice of close reading. We assign fewer texts in order to emphasize attention to the details that give a work of literary art its rich 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.

In grades 9 through 11, the course of study in English is organized around the major literary genres: poetry, drama, and prose fiction. Increasingly, students read works of nonfiction as well. In the year-long courses, freshman through junior year, faculty members develop their own curricula at each grade level and for each literary genre with an eye to including a rich diversity of literary voices from a broad range of traditions, time periods, and cultures. This approach not only expands students’ awareness of literature’s vast scope, but also helps students identify key connections between complex, seemingly disparate works. In their senior year, students may take semester electives focused on authors, literary movements and themes, and creative writing; they are also offered a variety of year-long course options.

In past years, students have studied Shakespeare’s The Tempest alongside Aimé Césaire’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.
Requirements:
Continuous enrollment in English, grades 9 through 12. Seniors take either two semester-long electives or one year-long elective (Seminar in Literary Studies or The New Community Project).

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 occupies the first quarter of the ninth grade year and is ungraded—taken pass/fail—a practice which allows us both to keep the focus on student work and teacher feedback and to offer students space for fruitful 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, The Metamorphosis, 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 (ENGL 210)
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 bolder, more energetic analytical and imaginative writing expected of them during the year. Tenth grade students study drama, poetry, prose fiction and, increasingly, nonfiction—all with a continued, intentional focus on close reading; typical texts include Twelfth Night, Othello, The Great Gatsby, The Odyssey, Chronicle of a Death Foretold, Song of Solomon, Between the World and Me, and Sing, Unburied, Sing. Tenth graders continue our grammar curriculum with an increased focus on the constructive uses of grammar in the context of their writing and thinking.

ENGL 310 - English 11
Full credit, meets 4 days/week
Prerequisites: English 10 (ENGL 220)
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 project that brings together skills they have been working to cultivate 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-
alaytical study of their own from that material.

**ENGL 320 - Senior Electives**

*Full credit, meets 4 days/week*

*Prerequisites: English 11 (ENGL 310)*

*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:*

- Absolutely Fabulist: Literature of Cognitive Estrangement
- Literature of Puzzles, Games, and Mysteries
- Psychological Realism: George Eliot and Virginia Woolf
- Kafka and the “Kafkaesque”
- Why Look at Animals?
- Toni Morrison
- Bridging the Divide: The Modern American Identity
- Short Masterpieces of Russian Literature
- On Trial
- British Romanticism: Visions and Revisions
- What We Talk About When We Talk About Love
- Short Fiction: A Writing Workshop
- Emily Dickinson
- Reading Chang-Rae Lee
- 20th Century African-American Literature
- Writing Nature, Writing Ourselves
- The Serious Pleasures of Detective Fiction
- Things Fall Apart
- History of the English Language
- Speculative Fiction and the Power of Language
- Poets of Moment
- Literature and Film: the Art of Redemption
- The Alien: Stories and Theories of Contact
- Youth in Revolt: Social, Cultural, and Political Resistance in American Fiction
- Posthumanism: Freaks and Cyborgs
ENGL 330 - The New Community Project
Full credit, meets 4 days/week
Prerequisites: English 11 (ENGL 310)
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 on our local communities. Specifically, we will partner with a 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 410.3 - Seminar in Literary Studies: Critical Theories of Gender, Race, Sexuality, and Ability
Full credit, meets 5 days/week
Prerequisites: English 11 (ENGL 310), departmental approval, submission of a written Statement of Intent
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 and committed English student in mind, the reader for whom extended, year-long study of a particular literary and critical approach or set of texts 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 careful design;
*Four essays (at least two of 5+ pages) and one longer presentation or group project required per semester;
*Required reading of literary criticism and/or theory.
“Critical Theories” is an introduction to some foundational works of critical and literary theory, especially as they intersect with issues of race, class, gender, sexuality and ability. The goal of the class is to use these texts to give students a vocabulary to speak about important cultural issues and a lens through which to consider works of literature, art, and cultural entertainment. The class consists of modular units centered around particular “isms” such as Marxism, Psychoanalysis, Gender Studies, African-American Literary Theory, Post-colonialism, Queer Studies, and Disability Studies. In each modular unit, the class will read a number of critical essays and excerpts, and we will apply these theories to a number of different cultural texts. One text we will return to throughout the year will be Kafka’s Metamorphosis, applying each of the theories we read to this novella as practice in close reading through a critical lens. Some other texts we will consider might include films such as Paris is Burning, The Silence of the Lambs, or Moonlight; television shows such as Black Mirror; and even advertisements, memes, artworks, and viral images. Written work for the class will comprise an ongoing online message board, literary-criticism essays, a research paper on one theorist's work, and more creative engagements with the theories we encounter.

**ENGL 410.4 - Seminar in Literary Studies: Interactive Literature**

*Full credit, meets 5 days/week*

**Prerequisites:** English 11 (ENGL 310), departmental approval, submission of a written Statement of Intent

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 and committed English student in mind, the reader for whom extended, year-long study of a particular literary and critical approach or set of texts 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 careful design;
*Four essays (at least two of 5+ pages) and one longer presentation or group project required per semester;
*Required reading of literary criticism and/or theory.
When a reader untangles a riddle, solves a mystery, figures out a puzzle, or plays a game, they don’t passively receive information; instead, they actively participate in an experience. This course will ask: How does this kind of reader engagement change literature? What happens when the reader becomes a participant, sleuth, player – or even co-author?

We’ll study traditional print and film texts that call upon readers to solve them, such as Agatha Christie’s mysteries and early English riddle-poems. We’ll then turn to more overtly interactive texts that offer to readers (or viewers, players, etc.) different paths and even different endings: *Choose Your Own Adventure* descendants like Ryan North’s *To Be or Not to Be*, videogames like Deck Nine’s *Life is Strange: True Colors*, and branching films like David Slade’s *Bandersnatch*. We’ll focus especially on hypertext literature (navigated by clicking on options) and text-parser literature (navigated by typing commands), especially the works of Emily Short.

Our supplementary readings will address intersections between interactive literature and theories of (1) identity and subjectivity, (2) authorship and readership, (3) gamification, (4) adaptation, and (5) rhetoric. In addition to writing critical essays and a research paper, each student will adapt an existing literary work into an interactive medium and create their own original interactive text. Some assignments will use coding skills that we will learn as we go; no coding experience is required to take the class.
History

Requirements:

Grade 9: Atlantic World History (HIST 210)
Grade 10: United States History (HIST 220)
Grade 11 or 12: One history elective

Elective Courses Offered in 2023-24

300-level

- History of the Silk Roads (HIST 315)
- Latin American History (HIST 316)
- Global Environmental History (HIST 320)
- The Global Cold War (HIST 321)
- Contemporary U.S. History, 1945 to the present (HIST 323)
- African History (HIST 326)
- LGBT American History (HIST 328)

400-level

- Religion in History (HIST 413)
- East Asian History (HIST 414)
- United States Legal History (HIST 417)
- Voices of Protest: The Progressives to the Present (HIST 419)
- African American History (HIST 424)

Courses Not Offered in 2023-24

- Classical World Civilizations (HIST 310)
- History Through the Lens: Movies and American Culture (HIST 318)
- History of the Islamic World (HIST 327)
- Comparative Race and Ethnicity (HIST 312)
- Vast Early American History (HIST 322)
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 (HIST 210)
Grade 10: United States History (HIST 220)
Grade 11 or 12: One History elective

A note on 300- and 400-level History electives

Elective courses in the History Department may be offered at either the 300- or 400-level, depending on the year. 400-level courses cover a similar range of content as their 300-level counterparts, but in these courses students read additional scholarly articles, write a year-long research paper, consider how historians seek to understand history through the methodological approaches they take, and examine how historians study and interpret history (i.e. historiography). 400-level courses meet five days/week, while 300-level courses meet four days/week. During program planning, students should refer to the Master List of Courses addendum, which lists which courses are currently running at each level in the upcoming academic year, and which are anticipated to run at each level the following year (subject to teacher availability and enrollment). Admission to 400-level History electives is based on the permission of the History Department. Rising seniors who applied to a 400-level 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 300-level history elective during the student’s junior year.
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 (HIST 210)*
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 315 - History of the Silk Roads
*Full credit, meets 4 days/week*
*Prerequisites: Atlantic World History (HIST 210), US History (HIST 220)*
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 Sogdians, 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, along with shorter writing assignments designed to build key historical interpretation skills.

**HIST 316 - Latin American History**

[Course to be offered at the 400 level in 2024-25]

*Full credit, meets 4 days/week*

**Prerequisites:** Atlantic World History (HIST 210), US History (HIST 220)

Latin America is a term that describes the majority of the Western Hemisphere and contains vast cultural, racial, and national diversity. What unifies this region? What makes each country within it unique? These are the questions we will answer as we explore the region’s past and present. 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 the historical roots of dilemmas in Latin America today.

**HIST 320 - Global Environmental History**

[Course to be offered at the 400 level in 2024-25]

*Full credit, meets 4 days/week*

**Prerequisites:** Atlantic World History (HIST 210), US History (HIST 220)

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 topics as agro-ecology, trans-ecological exchange, the role of disease, energy sources and use, urbanization, the environmental impacts of empire, the commodification of nature, nuclear weapons and energy, 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, short analytical papers, and a project that asks students to research and present solutions to climate change, the course will also support students as they conduct research into an environmental history topic of their own choosing.

**HIST 321 - The Global Cold War**

*Course to be offered at the 400 level in 2024-25*

**Full credit, meets 4 days/week**

**Prerequisites:** Atlantic World History (HIST 210), US History (HIST 220)

While the Cold War is often depicted as a struggle between the US 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, and participate actively in class discussion.
**HIST 323 - Contemporary U.S. History, 1945 to the present**

[Course to be offered at the 400 level in 2024-25]

Full credit, meets 4 days/week

Prerequisites: Atlantic World History (HIST 210), US History (HIST 220)

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 websites, students will learn about the major factors that helped make the United States 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. The course will push well into the twenty-first century. 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.

**HIST 326 - African History**

[Course to be offered at the 400 level in 2024-25]

Full credit, meets 4 days/week

Prerequisites: Atlantic World History (HIST 210), US History (HIST 220)

Despite being the oldest continent and home to the greatest diversity of life on the planet, Africa remains a largely misunderstood region of the world. Western media continues to bombard us with negative or misleading stereotypes and tropes about Africa, such as reducing the complexity of a continent to a single, homogeneous “country.” This course offers a broad introduction to the peoples and events which have shaped the continent’s past. From prehistory to present, students will learn the ways in which Africans have contributed to, and have been caught up in, global historical processes, undermining the prevalent western notion that Africa remained cut off from the world until the start of the Transatlantic Slave Trade. This course will also rely on diverse African voices to tell their stories and histories. This course will also not shy away from the series of very real crises that have plagued the continent over the past centuries; however, it addresses these problems in a constructive manner that helps students contextualize the roots of Africa’s issues. They will come to view them as global problems, and not simply as African problems. Finally, this course will center African solutions to the challenges that Africans have faced over time.

**HIST 328 - LGBT American History**

[Course to be offered at the 400 level in 2024-25]

Full credit, meets 4 days/week

Prerequisites: Atlantic World History (HIST 210), US History (HIST 220)
This course will survey United States history through the lens of “queerness,” broadly defined as going against a prescribed “norm,” from pre-colonial times to the present. After spending some time defining LGBT history, the course will then move chronologically and thematically through United States history with a focus on defining norms of gender and sexuality, moments of gender ambiguity or “transing” gender (to borrow a phrase from historian Jen Manion), and the history of same-sex relationships, as well as how those relationships have been understood and recognized by society. While this course is geographically centered in the United States, the course will also pay close attention to moments when LGBT history crosses national borders, in terms of either immigration policies, US imperialism, or global cultural influences, to name just a few examples.

400-level courses

HIST 413 - Religion in History
[Course to be offered at the 300 level in 2024-25]
Full credit, meets 5 days/week
Prerequisites: Atlantic World History (HIST 210), US History (HIST 220), and departmental approval 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. More weight will be given to grade averages in years 10 and 11.

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, worldviews, 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 414 - East Asian History**

[Course to be offered at the 300 level in 2024-25]

*Full credit, meets 5 days/week*

**Prerequisites:** Atlantic World History (HIST 210), US History (HIST 220), and departmental approval 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. More weight will be given to grade averages in years 10 and 11.

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 how the three regions of East Asia—China, Korea, and Japan—are 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 its borders. We'll also track continuity and change in East Asia, both before and after contact with Europe and the United States, to establish a more informed historical understanding of current events. 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.

**HIST 417 - United States Legal History**

[Course to be offered at the 300 level in 2024-25]

*Full credit, meets 5 days/week*

**Prerequisites:** Atlantic World History (HIST 210), US History (HIST 220), and departmental approval 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. More weight will be given to grade averages in years 10 and 11.

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. Students will engage with current events through the lens of legal history with the goal of deepening analysis and understanding. Students will also have the opportunity to pursue independent research projects in the field of US legal history.

**HIST 419 - Voices of Protest: The Progressives to the Present**

*Course to be offered at the 300 level in 2024-25*

*Full credit, meets 5 days/week*

**Prerequisites:** Atlantic World History (HIST 210), US History (HIST 220), and departmental approval 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. More weight will be given to grade averages in years 10 and 11.

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 key components 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 Jim Crow to “Black Lives Matter”**
3. **War Protests: from World War I to the Surveillance State**
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 424 African American History  
[Course to be offered at the 300 level in 2024-25]  
Full credit, meets 5 days/week  
Prerequisites: Atlantic World History (HIST 210), US History (HIST 220), and departmental approval 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. More weight will be given to grade averages in years 10 and 11.  
This course will survey the history of African American experiences from the arrival of Africans in the Americas to the present. Through a chronological study, students will investigate how African Americans, individually and collectively, gave shape to political dynamics, cultural expressions, economic trends, social movements, and geo-spatial developments in America. They will interrogate the ways in which race, class, gender, sexuality, and region constructed diverse Black identities and experiences, challenging the notion of a singular Black American experience. The course will also explore the varied ways Black Americans have mobilized in pursuit of self-determination, examining the tensions and interconnections between various freedom struggles and strategies, and will consider how campaigns for Black liberation continue to be forged in our present moment. Through a close examination of primary and secondary sources and active discussion in a seminar-style format, students will learn to think critically about conceptions of race and processes of racialization as historically contingent, contextually specific formations, but with very real consequences that produced, and continue to shape, the world they inhabit today. Students will also have the opportunity to pursue independent research projects in the field of African American history.
Courses Not Offered in 2023-24

**HIST 310 - Classical World Civilizations**  
[Not offered 2023-24]  
*Full credit, meets 4 days/week*  
Prerequisites: Atlantic World History (HIST 210), US History (HIST 220)  
This course on Classical World Civilizations will focus on some of the seminal 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 importance 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 312 - Comparative Race and Ethnicity**  
[Not offered 2023-24]  
*Full credit, meets 4 days/week*  
Prerequisites: Atlantic World History (HIST 210), US History (HIST 220)  
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.
HIST 318 - History Through the Lens: Movies and American Culture
[Not offered 2023-24]
Full credit, meets 4 days/week
Prerequisites: Atlantic World History (HIST 210), US History (HIST 220)
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 322 - Vast Early American History
[Not offered 2023-24]
Full credit, meets 4 days/week
Prerequisites: Atlantic World History (HIST 210), US History (HIST 220)
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.
HIST 327 - History of the Islamic World
[Not offered 2023-24]

Full credit, meets 4 days/week

Prerequisites: Atlantic World History (HIST 210), US History (HIST 220)

For 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.
Interdisciplinary Studies

**ECON 310 - Economics: The Science of Decisions and Impact**
*Full credit, meets 4 days/week*
*Prerequisites: Algebra II & Trigonometry (MATH 221 or MATH 222H)*
This course aims to give students a broad exposure to central themes in both micro and macroeconomics. In addition to standard theory, the course will emphasize discussion and current events. Topics of study will include: supply and demand, organization of industry, economic indicators, poverty and inequality, the role of government and central banks, globalization and the financial system, as well as behavioral economics. The tools developed in the class will help students understand and analyze not only the economy, but also their own individual decision-making.

**INTD 320 - Independent Interdisciplinary Research Seminar**
*Full credit, meets five days in every ten-day cycle*
*Prerequisites: approval of program director*
*Open to students in Grades 11-12*
The Independent Interdisciplinary Research Seminar allows motivated students to study topics of personal interest not included in the Horace Mann curriculum, or to continue research on a topic covered in a previous course with a focus on interdisciplinarity. 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 program director once every other week. IIRS members also convene two to three times per week for student-led seminar presentations of their work. All participants keep journals in which they record their research. Each semester, students produce projects as evidence of their work: usually a research paper, a literary or artistic work, a scientific experiment, or a performance. The content of each student’s project determines the nature of their final product.
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 2023-24
300-level
- Precalculus (MATH 310)
- Calculus (MATH 350)

400-level
- Precalculus with Theory (MATH 410)
- Precalculus with Theory Honors (MATH 411H)
- Calculus with Theory (MATH 420)
- Calculus with Theory Honors (MATH 421H)
- Statistics and Probability (MATH 430)
- Advanced Euclidean Geometry (MATH 440)
- Math Seminar (MATH 450)

Courses Not Offered in 2023-24
- Senior Math Electives (MATH 360)
- Discrete Math (MATH 361)
- Introduction to Stats and Probability (MATH 362)
Key: the darker the arrow, the more common the student path between courses.
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 & 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.”

Required Courses

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 and Problem Solving (MATH 210), Geometry (MATH 211), or Geometry Honors (MATH 212H)

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 (MATH 211) or Geometry Honors (MATH 212H), 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

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 (MATH 221) or Algebra II & Trigonometry Honors (MATH 222H), departmental approval (see below)

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 410 – Precalculus with Theory
Full credit, meets 4 days/week
Prerequisites: Algebra II & Trigonometry (MATH 221) or Algebra II & Trigonometry Honors (MATH 222H), departmental approval (see below)
In this course, students will cover a variety of topics 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).

**MATH 411H – Precalculus with Theory Honors**

*Full credit, meets 4 days/week*

*Prerequisites: Algebra II & Trigonometry (MATH 221) or Algebra II & Trigonometry Honors (MATH 222H), 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 350 - Calculus**

*Full credit, meets 4 days/week*

*Prerequisites: Precalculus (MATH 310) or Precalculus with Theory (MATH 410), 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: A minimum grade of C or higher in Precalculus.
**MATH 420 – Calculus with Theory**
*Full credit, meets 5 days/week*
Prerequisites: Precalculus (MATH 310) or Precalculus with Theory (MATH 410), departmental approval (see below)
This is a challenging math course that equips students with a strong foundation in calculus that will serve them well in future STEM courses. The focus of this course is differentiation and integration with applications to rates of change, optimization, area, and volume.
Approval requirements: A minimum grade of an exact B+ or higher when averaging both semester grades in Precalculus with Theory. In addition, in the spring, very high performing students in Precalculus who would like to take Calculus with Theory and have talked to their teacher about this jump will be asked to sit for a diagnostic test to help gauge their readiness. Precalculus with Theory students that do not meet the grade criteria will also be eligible for the diagnostic test.

**MATH 421H – Calculus with Theory Honors**
*Full credit, meets 5 days/week*
Prerequisites: Precalculus with Theory (MATH 410) or Precalculus with Theory Honors (MATH 411H), departmental approval (see below)
Calculus with Theory Honors is the culmination of the honors sequence in mathematics. In this course, students will investigate the central themes of both differential and integral calculus. Topics also covered are: special methods of integration, differential equations, infinite series, polar coordinates, arc lengths, and vectors and parametric equations.
Approval requirements: A successful year in Precalculus with Theory 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 with Theory Honors must have departmental approval. In unique circumstances, students who demonstrate exceptionally high achievement in Precalculus with Theory may be considered for this course. Departmental approval is required.

**MATH 430 - Statistics and Probability**
*Full credit, meets 5 days/week*
Prerequisites: Algebra II & Trigonometry (MATH 221) or Algebra II & Trigonometry Honors (MATH 222H); Precalculus (MATH 310), Precalculus with Theory (MATH 410), or Precalculus with Theory Honors (MATH 411H), 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: A minimum grade of an exact A- or higher when averaging both semester grades in Algebra II & Trigonometry. From Algebra II & Trigonometry Honors, a minimum of an exact B+ is required. From Precalculus, the requirement is a B+, Precalculus with Theory is a B, and Precalculus with Theory Honors is a B-.

**MATH 440 – Advanced Euclidean Geometry**

*Full credit, meets 4 days/week*

**Prerequisites:** Precalculus with Theory (MATH 410) or Precalculus with Theory Honors (MATH 411H), departmental approval (see below)

This is an intensive seminar-style math course for students with a serious interest in math and advanced geometry. The course includes a study of complex construction techniques involving homothecy and similitude, investigations into some of the major discoveries related to various special points and lines in triangles, locus definitions of conic sections and other special curves, circle inversion, and many other geometric topics. In addition to discovering geometrical relationships and devising proofs for them, students will put significant work into, and be evaluated on, the quality of the presentations of their findings. Assessments will be in the forms of problem sets, class presentations, computer-based constructions (especially using Geometer's Sketchpad, used almost daily throughout the year), and multimedia presentations. Many assessments will be completed in autonomous groups working on their own unique material, so self-motivation and tenacity, along with enjoyment of the act of doing mathematics, are requisite.

Approval requirements: A minimum grade of B+ in Precalculus with Theory Honors or a minimum grade of A in Precalculus with Theory, and departmental approval. This is a senior-year course, though in certain exceptional circumstances, a junior who has previously completed precalculus may be considered for course approval.

**MATH 450 - Math Seminar**

*Full credit, meets 4 days/week*

**Prerequisites:** Precalculus with Theory (MATH 410) or Precalculus with Theory Honors (MATH 411H), departmental approval (see below)

This course is 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 minimum grade of A- in Precalculus with Theory Honors and departmental approval are required. In certain exceptional circumstances, a student who has completed Precalculus with Theory may be considered for approval for this course.

Courses Not Offered in 2023-24

MATH 360 - Senior Math Electives
[Course not offered 2023-24]
Full credit, meets 4 days/week
Prerequisites: Precalculus (MATH 310), Precalculus with Theory (MATH 410), or Precalculus with Theory Honors (MATH 411H)

Senior Math Electives is a full-year 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 361 - Discrete Math
[Course not offered 2023-24]
Full credit, meets 4 days/week
Prerequisites: any Precalculus or Algebra II & Trigonometry course, departmental approval (see below)

This course studies 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, give oral presentations on their work, and complete 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 with Theory or Precalculus with Theory Honors. A year-end average of an A- or higher in Precalculus. 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 362 - Introduction to Statistics and Probability
[Course not offered 2023-24]
Full credit, meets 4 days/week
Prerequisites: Precalculus with Theory (MATH 410) or Precalculus with Theory Honors (MATH 411H)
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.
Physical Education & Health

Requirements:

Continuous enrollment in Concepts of Physical Fitness/Team and Life Sport, Yoga PE, Dance Workshop PE, or Dance Performance PE, grades 9 through 12. Physical Fitness/Team and Life Sport can be replaced by team membership or an approved Independent/Out-of-School Athletic Contract.

Completion of Health 1 in either Grade 9 or 10 and Health 2 in either Grade 11 or 12.

Certification in CPR/AED for the Professional Rescuers & Health Care Providers with First Aid.
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 with 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:

Continuous enrollment in Concepts of Physical Fitness/Team and Life Sport, Yoga PE, Dance Workshop PE, or Dance Performance PE, grades 9 through 12. Physical Fitness/Team and Life Sport can be replaced by team membership or an approved Independent/Out-of-School Athletic Contract.

Completion of Health 1 in either Grade 9 or 10 and Health 2 in either Grade 11 or 12.

Certification in CPR/AED for the Professional Rescuers & Health Care Providers with First Aid.

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, Yoga PE, Dance Workshop PE, or Dance Performance 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 the following purposes: (1) credit to be conferred for team participation; (2) approval of an Independent Out of School/Athletic contract; (3) selection of CPR/AED for Professional Rescuers & Health Care Providers with First Aid; and (4) selection of Health 1 or 2.
PHED 210 - Concepts of Physical Fitness/Team and Life Sport
Meets five days in every ten-day cycle
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. Periodic assessments will test students’ 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: soccer, floor hockey, tennis, table tennis, golf, horseshoes, bocce, jogging, flag football, volleyball, basketball, softball, speedball, team handball, ultimate, 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, stand up paddle-boarding, recreational aquatic games, snorkeling, Boga fit, and Boga yoga.

PHED 212 - Dance Workshop for PE Credit
Half credit, Meets five days in every ten-day cycle
Prerequisites: None
Studio/Performance credit or PE credit
Students taking part in a school sport are excused from class for the duration of their athletic season if they take the class for PE credit. Dance Workshop emphasizes the development of a strong technical base in American classical forms including Ballet, Modern, Jazz, Tap and Hip Hop, as well as Pilates and/or Yoga, and World Dance influences. Training includes warm-ups, improvisation, stretching exercises, and traveling combinations. Rhythmic awareness and the relationship between music and dance will be emphasized throughout.
Dance is a performing art and as such, there is the potential to share our work with the greater Horace Mann community throughout the year. There will be one field trip included in this course. Attending this field trip (outside of school hours and off-campus) is mandatory. Additional assignments to encounter live dance of your own choice and on your own time may also be a part of this course.

**PHED 213 – Yoga & Meditation for PE Credit**

*Half credit, meets five days in every ten-day cycle*

*Prerequisites: None*

*Studio/Performance credit or PE credit*

*Students taking part in a school sport are excused from class for the duration of their athletic season if they take the class for PE 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.

**PHED 313 – Dance Performance for PE Credit**

*Meets five days in every ten-day cycle*

*Prerequisites: Approval of the instructor*

*Participation in after-school sports does not exempt students from Dance Performance.*

*Studio/Performance 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. There will be one field trip included in this course. Attending this field trip (outside of school hours and off-campus) is mandatory.
Other options included in PHED 210 to be selected at PE Orientation

**Health 1**  
*Graduation Requirement*  
*Meets five days in every ten-day cycle for one quarter*  
*Prerequisites: None*  
*Grades 9-10*

**Health 2**  
*Graduation Requirement*  
*Meets five days in every ten-day cycle for one quarter*  
*Prerequisites: None*  
*Grades 11-12*  
The Health curriculum provides an interactive forum between 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 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.

**Certification in CPR/AED for the Professional Rescuers & Health Care Providers with First Aid**  
*Graduation Requirement*  
*Meets five days in every ten-day cycle for one quarter*  
*Prerequisites: None*  
*Grades 9-12*  
Students will learn how to provide first aid in emergencies. This certification course integrates the lifesaving skills of rescue breathing, first aid for choking, and CPR with AED. 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 during the same quarter, and those activities must 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. **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 two 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 in 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 one minute of treading.
Science

Requirements:

Biology (SCI 210)
Chemistry (SCI 220), Physics Through Inquiry (SCI 230),
Physics (SCI 311) or Physics Honors (SCI 312H)

Elective Courses Offered in 2023-24:

300-level
- Physics (SCI 311)
- Physics Honors (SCI 312H)
- Biotechnology (SCI 320)
- Human Anatomy and Physiology (SCI 321)
- Chemistry, Consumerism, and Citizenship (SCI 323)
- Astronomy: From Black Holes to Supernovae (SCI 324)
- Science Research 1: Research Theory and Skills (SCI 350)

400-level
- Molecular Genetics, Cells and Physiology (SCI 410.1)
- Molecular Genetics, Evolution and Ecology (SCI 410.2)
- Organic Chemistry and Its Applications in Biochemistry (SCI 420)
- Atomic Structure, Reactivity and Applications of Chemistry (SCI 425)
- Physics with Calculus (SCI 430)
- Environmental Science (SCI 440)
- Science Research 2: Analysis and Presentation of Research (SCI 450)

Courses Not Offered 2023-24

- Topics in Biology (SCI 301)
- Selected Topics in Physics (SCI 310)
- Experiments in Physics and Chemistry (SCI 322)
Science

The mission of the Science Department is to develop life-long learners who are critical consumers of information and can contribute to an equitable and sustainable global community. We do this by guiding students to make connections between foundational and novel knowledge, to practice new skills, embrace challenges, and deepen their appreciation and understanding of the natural world. Through experimentation and observation, students are introduced to scientific models and asked to apply them to predict the behavior of the world around them. Students are encouraged not only to study natural phenomena, but also to recognize the influence science and society have on one another. To create a collaborative community, students work together to grapple with difficult problems in a supportive and inclusive learning environment. We encourage such collaboration to build a strong community of learners with a common scientific language that they can use to effectively communicate through an objective and just lens. Through all of this, we aim to spark curiosity in our students and for them to experience joy in their ideas and those of others.

Requirements:
Biology
One of the following: Chemistry, Physics Through Inquiry, Physics or Physics Honors

A note on 400-level Science classes:
Students who wish to take two 400-level science classes concurrently will require special permission from the department and should be sure to speak with their Grade Dean.

Introductory Courses

SCI 210 - Biology
Full credit, meets 4 days/week, including one double lab period.
Prerequisites: None
The course provides a survey of the major areas of inquiry in biology including: molecular biology, genetics, physiology, evolution, and ecology. Students have the opportunity to apply their knowledge in a laboratory setting during a double period every week. This hands-on approach allows them to develop important scientific skills such as experimental design and data analysis while supporting this understanding of biological phenomena. In addition, students engage in discussions and activities that explore current research
and cutting edge discoveries in the field of biology. By exploring real-world examples, students develop a greater appreciation for the impact of biology in our daily lives and on the world. At the end of the course, students will collaborate on and present a final laboratory or data-based project. This final capstone project is a culmination of the skills developed throughout the course, and showcases their ability to design an experiment, analyze data, and draw meaningful conclusions.

**SCI 220 - Chemistry**
*Full credit, meets 4 days/week, including one double lab period.*
*Prerequisites: None*
Chemistry concerns the composition and properties of matter. The topics discussed in the classroom are explored through demonstrations and reinforced through weekly labs. 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 230 - Physics Through Inquiry**
*Full credit, meets 4 days/week, including one double lab period. Can be taken in Grade 10 (before taking Chemistry in Grade 11) or later.*
*Prerequisites: Biology (SCI 210)*
Physics Through Inquiry is a laboratory-based introductory class in which students work collaboratively with their peers. Through experimentation, students build and test scientific models of Newtonian mechanics, conservation of momentum and energy, thermodynamics, wave behavior, and light. A project at the end of each semester focuses on our society's use of energy and technology. The course emphasizes the development of analytical reasoning skills which helps students become more comfortable with applying mathematical reasoning to the scientific process. Physics Through Inquiry (along with Biology and Chemistry) will serve as a prerequisite for all 400-level science courses other than Physics with Calculus (SCI 404), which requires Physics or Physics Honors as a prerequisite.

**SCI 311 - Physics**
*Full credit, meets 4 days/week, including one double lab period.*
*Prerequisites: Biology (SCI 210); Chemistry (SCI 220) recommended*
Physics is an introductory, algebra-based course covering Newtonian mechanics, conservation of energy and momentum, electricity, 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 allows 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 (SCI 210); Chemistry (SCI 220) recommended; departmental approval (see below)*

*Usually taken in Grade 11*

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 June, 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 a 400-level Science; students who are interested in this option must speak 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 (SCI 210), and either Chemistry (SCI 220) or Physics Through Inquiry (SCI 230)*

This is an upper-level course in Biology that introduces students to the 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 ninth and tenth 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, and microarray analysis, protein purification by column chromatography, and detection of antigens using Enzyme-Linked Immunosorobent Assays (ELISA). Students will plan, conduct, analyze, and write reports or answer lab study questions on their own experiments. Students will also spend time exploring the historical, technical, and social issues influenced by advances in biotechnology by writing papers and making presentations to the class on these issues.

**SCI 321 - Human Anatomy and Physiology**

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

**Prerequisites:** Biology (SCI 210), and either Chemistry (SCI 220) or Physics Through Inquiry (SCI 230)

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 of 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 323 - Chemistry, Consumerism, and Citizenship**

*Full credit, meets 4 days/week*

**Prerequisites:** Biology (SCI 210), and either Chemistry (SCI 220) or Physics Through Inquiry (SCI 230)

This course explores the intersection of science and society that features diversity, inclusion, and equity at the foreground of the
chemical concepts introduced. This course will discuss the communication of scientific knowledge by analyzing the role and function of various forms of writing, including journalistic, educational, and social media to communicate scientific understanding. Students will examine the intention, design, consumption, disposal and impact of innovations and consumer goods on the well-being of communities, the economy, and the environment. Major assessments will include research papers, presentations, and multimedia projects on the impacts of chemistry. Students who are interested in analyzing developments in the energy industry and urban planning, discussing research informing and influencing public policy on nutrition and tobacco, and recognizing how to critically consume fashion and skincare products should consider taking this course.

**SCI 324: Astronomy: From Black Holes to Supernovae**
*Full credit, meets 4 days/week, including one single-period lab*

**Prerequisites:** Biology (SCI 210), Chemistry (SCI 220) as well as Physics (SCI 311) or Physics Honors (SCI 312H). Physics may be taken concurrently.

This is a laboratory-based, year-long introductory astronomy course. The objective of this course is to understand several of the most important topics in historical and modern astronomy and space exploration. Topics include stellar evolution, the planets of our solar system, cosmology, telescopes, and the history of the universe. Weekly labs will give students the opportunity to practice the methods that astronomers use, as well as to apply concepts learned in chemistry and physics to locate, study, and understand objects beyond the Earth. Students should gain an appreciation of the art of astronomical observation, and apply their knowledge of algebra and trigonometry to analyze astronomical data. Labs may include: building a pinhole camera, using skyview software to find celestial objects and predict their paths, geometric optics, and locating and observing objects in the sky with binoculars. There will be one required overnight trip per semester to Dorr for nighttime observation, and one required daytime trip to a local planetarium in the first semester.

**400-level courses:**

**SCI 410.1 - Molecular Genetics, Cells, and Physiology**
*Full credit, meets 4 days/week, including one double lab period*

**Prerequisites:** Biology (SCI 210), Chemistry (SCI 220), and Physics Through Inquiry (SCI 230) or Physics (SCI 311) or Physics Honors (SCI 312H); departmental approval required (see below)

Molecular Genetics and Cell Physiology is an advanced biology course. During the first half of the course, students 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, the focus shifts to the cell, the foundational building block for all living things, and students learn about cellular structure and processes. This course addresses cell structure, cellular signaling, physiology of various types of cells including neurons, as well as the endocrine and immune system cellular responses. The course draws upon a solid foundation of basic chemical knowledge and integrates it into the understanding of how cells function within multi-cellular organisms. The course includes topics that will span both prokaryotic and eukaryotic organisms, but focuses on multicellular eukaryotic organisms.

Approval requirements: Students must have an average grade of B+ or better in Biology, Chemistry, and Physics Through Inquiry, Physics, or Physics Honors. An average grade of B+ or better in Biology is required. Particularly outstanding and interested students may be permitted to take Physics concurrently.

Note: Students who take SCI 410.01 will not be permitted to take SCI 410.02 due to overlap of course content.

**SCI 410.2 - Molecular Genetics, Evolution, and Ecology**

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

*Prerequisites: Biology (SCI 210), Chemistry (SCI 220), and Physics Through Inquiry (SCI 230) or Physics (SCI 311) or Physics Honors (SCI 312H); departmental approval required (see below)*

Molecular Genetics, Evolution and Ecology is an advanced biology course. During the first half of the course, students 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. Students build an understanding of the fundamentals of life history, behavior, population dynamics, ecosystem processes, and how evolution shapes ecological relationships. Students make connections between species diversity and ecosystem function in order to understand the importance of conserving biodiversity. Conceptual learning is supported by hands-on inquiry-driven investigations that emphasize experimental design, data analysis, and scientific communication.

*Approval requirements: Students must have an average grade of B+ or better in Biology, Chemistry, and Physics Through Inquiry, Physics, or Physics Honors. An average grade of B+ or better in Biology is required. Particularly outstanding and interested students may be permitted to take Physics concurrently.*
Note: Students who take SCI 410.02 will not be permitted to take SCI 410.01 due to overlap of course content.

**SCI 420 - Organic Chemistry and its Applications in Biochemistry**

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

**Prerequisites:** Biology (SCI 210), Chemistry (SCI 220), and Physics Through Inquiry (SCI 230) or Physics (SCI 311) or Physics Honors (SCI 312H); departmental approval required (see below)

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. Approval requirements: Students must have an average grade of B+ or better in Biology, Chemistry, and Physics Through Inquiry, Physics, or Physics Honors. A grade of B+ or better in each semester of Chemistry is required. Particularly outstanding and interested students may be permitted to take Physics concurrently.

**SCI 425 – Atomic Structure, Reactivity and Applications of Chemistry**

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

**Prerequisites:** Biology (SCI 210), Chemistry (SCI 220) and Physics Through Inquiry (SCI 230), Physics (SCI 311), or Physics Honors (SCI 312H); departmental approval required (see below)

This course is comparable to an introductory college course in general chemistry and will draw heavily on the foundation established in tenth-grade chemistry. The course will emphasize the conceptual and quantitative understanding of how compounds and molecules interact and the design and execution of inquiry-based chemistry experiments to support that understanding. This course will also focus on making connections to real-world applications of chemistry. 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 and mathematical reasoning are required to master this course. Approval requirements: Students must have an average grade of B+ or better in Biology, and Physics Through Inquiry, Physics, or Physics Honors. Students must be enrolled in or have
completed Precalculus. A grade of A- or better in each semester of Chemistry is required. Particularly outstanding and interested students may be permitted to take Physics concurrently.

**SCI 430 - Physics with Calculus**

*Full credit, meets 5 days/week, including one double lab period.*

*Prerequisites: Biology (SCI 210), Chemistry (SCI 220), and Physics (SCI 311) or Physics Honors (SCI 312H); departmental approval required (see below)*

*Co-requisite: Calculus with Theory (MATH 420) or Calculus with Theory Honors (MATH 421H)*

Physics with Calculus 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 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. A final project may be assigned.

*Approval requirements: An average grade of B+ or better in Biology, Chemistry, and Physics or Physics Honors. A grade of A- or better in each semester of Physics, or B+ or better in each semester of Physics Honors is required. A grade of A- or better in each semester of Precalculus with Theory (MATH 410) or B+ or better in each semester of Precalculus with Theory Honors (MATH 411H) is required. Students must be enrolled in or have completed Calculus with Theory (MATH 420) or Calculus with Theory Honors (MATH 421H).*

**SCI 440 - Environmental Science**

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

*Prerequisites: Biology (SCI 210), Chemistry (SCI 220), and Physics Through Inquiry (SCI 311) or Physics (SCI 311) or Physics Honors (SCI 312H); departmental approval required (see below)*

*How do you define our planet and the environment in which we live? How do various parts of our ecosystem interact with each other? How do we, as humans, fit into this complex and interconnected web?*
Throughout this course, students strive to answer those questions as they learn about climate change, biodiversity loss, pollution, ecosystem dynamics, sustainability, resource management, and more. They explore the complexities of interactions throughout our world by performing hands-on labs such as investigating bioremediation with bacteria and conducting air quality tests around campus. The labs selected for this course are mostly student driven, with an emphasis on experimental design, including data collection, analysis, and interpretation. At the conclusion of the class, students not only have a deeper understanding about the dynamic environmental systems that support life on earth and the challenges facing our planet, but also the knowledge to develop and implement effective solutions to environmental challenges facing us now and in the future.

Approval requirements: Students must have an average grade of B+ or better in Biology, Chemistry, and Physics Through Inquiry or Physics or Physics Honors. Particularly outstanding and interested students may be permitted to take Physics concurrently.

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 in Year 1 by providing students with the understanding of scientific method and skills necessary to perform research, and continues through the research experience. Students in Year 1 search for an outside lab experience for the summer between Science Research I and Science Research II and are coached through the process of securing a research experience. Students in Year 2 are supported as they present their research, create a research poster, and write a full research paper. The course meets five days in every ten-day cycle. Students from Year 1 and Year 2 meet during the same period to facilitate collaboration across student groups.

Approval requirements: Science Research is only open to students in grade 10 and above. Selection is at the discretion of the department. Before submitting their Course Request Sheets, interested students must meet with the Science Research Coordinator and submit an application to the program. Due to the highly independent nature of coursework, students should consider discussing their fit for the program with their Grade Dean or advisor and current science teacher prior to completing the application.
SCI 350 - Science Research 1: Research Theory and Skills
Half credit, meets five days in every ten-day cycle
Prerequisites: Departmental approval required. Before submitting their Course Request sheets, interested students must meet with the Science Research Coordinator and submit an application to the program. The curriculum of Year 1 is focused on reading scientific literature; gathering background information on a science research project and discussing others’ research; 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. (Note: Many outside research laboratories require student volunteers to be 16 years of age or older.) During the year, students will conduct an in-house research project to be presented at the Annual Sci Tech Event.

Summer Research Experience at Horace Mann: In the event that a student is unable to secure an outside research experience, or if a student needs a more scaffolded research experience with close supervision, it is anticipated that a Summer Research Opportunity will be in place at Horace Mann School by Summer 2024 for a select few students. Details regarding this option will be provided later in the year.

SCI 450 - Science Research 2: Analysis and Presentation of Research
Half credit, meets five days in every ten-day cycle
Prerequisites: Departmental approval required. Before submitting their Course Request sheet, interested students must meet with the Science Research Coordinator and submit an application to the program. Students must also provide confirmation of a research experience before beginning the course in the Fall Semester. Students enrolled in Year 2 will focus on written and oral presentations of their research. They will enter various competitions and symposiums. In addition, discussions about the scientific method and practice of research, data analysis, and research ethics will continue. Students will informally mentor Year 1 students. Students are required to participate in the annual Sci Tech event.
**Science Research Program Overview**

**Year 1 Sem 1**
- Skill building & obtaining outside research experience

**Year 1 Sem 2**
- Research Project, Prepping for outside summer research

**Summer**
- 6-8 week full-time outside summer research

**Year 2 Sem 1**
- Writing, presenting, applying to competitions

**Year 2 Sem 2**
- Mentoring Year 1 research, presenting, extension of work

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**Prerequisites #1:** Application*, Meet with Science Research Coordinator, Department approval

**Prerequisites #2:** Affirmation of prior research, Application*, Meet with Science Research Coordinator, Department approval

*Applications in all cases must be submitted during program planning the spring before course enrollment.
Courses Not Offered in 2023-24

**SCI 301 - Advanced Topics in Biology**
*Course not offered 2023-2024*

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

*Prerequisites: Biology (SCI 210), Chemistry (SCI 220)*

This is a second course in biology for students who wish to explore certain topics 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 310 - Selected Topics in Physics**
*Course not offered 2023-2024*

*Full credit, meets 4 days/week*

*Prerequisites: Biology (SCI 210), Chemistry (SCI 220)*

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 322 - Experiments in Physics and Chemistry

[Course not offered 2023-2024]

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

Prerequisites: Biology (SCI 210), and Chemistry (SCI 220), Physics Through Inquiry (SCI 230), or Physics (SCI 311)

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, food science, novel materials, mechanics, waves, sound, and light, analog and digital circuits, energy, and magnetic fields. In the second semester, each student will pursue an independent project on a subject of interest to them, 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.
World Languages

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

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 through Film (LNGF 320)
- Studies in French: Marges et Centres du Monde Francophone (LNGF 410)
- French Seminar (LNGF 420)

- Japanese 1 (LNGJ 210)
- Japanese 2 (LNGJ 220)
- Japanese 3 (LNGJ 230)
- Japanese 3 Honors (LNGJ 231H)
- Japanese 4 (LNGJ 310)
- Japanese 5 (LNGJ 320)
- Studies in Japanese: Traditional to Contemporary Culture, Language, and Society (LNGJ 410)
- Japanese Seminar (LNGJ 420)
- Latin 1 (LNGL 210)
- Latin 2 (LNGL 220)
- Latin 3 (LNGL 230)
- Latin 3 Honors (LNGL 231H)
- Latin 4 (LNGL 310)
- Studies in Latin: Rome’s Narrative (LNGL 410)
- Latin Seminar (LNGL 420)

- Spanish 1 (LNGS 210)
- Spanish 2 (LNGS 220)
- Spanish 2 Honors (LNGS 221H)
- Spanish 3 (LNGS 230)
- Spanish 3 Honors (LNGS 231H)
- Spanish 4 (LNGS 310)
- Spanish through Film (LNGS 320)
- Studies in Spanish: Canciones, poetas y revoluciones (LNGS 410.1)
- Spanish Seminar: The Hispanic World (LNGS 420)

**Half-credit courses:**
- Ancient Greek A (LNGG 201)
- Ancient Greek B (LNGG 202)
- Ancient Greek C (LNGG 203)
- Ancient Greek D (LNGG 301)

- Latin A (LNGL 201)
- Latin B (LNGL 202)
- Latin C (LNGL 203)
- Latin D (LNGL 301)
- Latin E (LNGL 302)

**Courses Not Offered in 2023-24**
- Studies in Spanish: Ficciones del Sur (LNGS 410.2)
World Languages

The World Languages Department believes that learning a language is not an end in itself, but a means to something greater. Since languages constitute the foundational structure of human interaction, social engagement, and the exchange of knowledge, we strive to promote their effective use as vehicles for intellectual and creative work. We encourage our students to find joy in discovering connections and appreciating differences between cultures.

From the introductory level onwards, students engage with authentic materials in their chosen language as they relate to their personal experience. Throughout our program of study, they continue to develop language skills and content knowledge to explore communities and engage with a diverse world. Students work to express ideas with sophistication and precision in other languages, which in turn leads to new avenues of exploration across disciplines. With the skills and cultural understanding they acquire, they are prepared to actively participate in and serve our global society.

Graduation Requirements:
Sequential study through the third level of a full-credit language offering available in Chinese, French, Japanese, Latin, and Spanish. A minimum grade of C- averaged between the two semesters is required to move to the next level of study. The grade of D averaged between the two semesters 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 beginning at level 2 in French and Spanish and at level 3 in Japanese and Latin.

To remain in the honors track, students must maintain an average grade of an exact B+, without rounding, with a minimum grade of B+ in the second semester. Any student finishing the second semester with a B+ who earned a grade no lower than B in
the first semester can request to be considered by submitting a letter of request to their teacher at the end of registration. Students who wish to move from a regular track to an honors level must achieve a grade of an exact A or above in the regular track course. Any student finishing the second semester with an A who earned a grade no lower than B+ in the first semester can request to be considered by submitting a letter of request to their teacher at the end of registration.

**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 enrolls in a half-credit Latin or Greek course throughout their years in the Upper Division, along with another language, they will be required to complete 1.5 credits in the arts to graduate, rather than 2 credits. 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/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 (LNGC 210) 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 (LNGC 220) 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 (LNGC 230) or placement exam.*

The fourth-level Mandarin Chinese language course includes a review of basic and intermediate structures within a cultural 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 (LNGC 310) 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

French Sequence

**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 level 2 the following academic year.

**LNGF 220 - French 2**
*Full credit, meets 4 days/week*
*Prerequisites: HM Middle Division French 3, French 1 (LNGF 210), 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: HM Middle Division French 3, French 1 (LNGF 210), and departmental approval (see below); placement exam for new students*

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: 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 (LNGF 220)**
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 their everyday life to those concerning their community. To stimulate students’ expression and sharpen their ability to communicate, we use a wide range of contemporary francophone 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 (LNGF 221H) or French 2 (LNGF 220) and departmental approval (see below).*

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 developing persuasive writing and speaking skills. 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: 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 (LNGF 230) or French 3H (LNGF 231H)*

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 through Film**

*Full credit, meets 4 days/week*

*Prerequisites: French 4 (LNGF 310)*

In this class, conducted almost exclusively in French, students deepen their knowledge of francophone cultures and refine their language, using film and supporting contemporary cultural sources such as literary excerpts, newspaper articles, blogs, and
comic books. The class fosters discussion, cultural comparisons, and global awareness.

**LNGF 410 - Studies in French: Marges et centres du monde francophone**
*Full credit, meets 5 days/week*

Prerequisites: French 3 Honors (LNGF 231H) or French 4 (LNGF 310) and departmental approval (see below).

Conducted entirely in French, this course is dedicated to a study of ‘outsiderness’ and marginality in various francophone contexts. Given that it is a discussion based class, it places a strong focus on extemporaneous speaking and writing. Through a selection of historical documents, literary excerpts, songs, videos, and articles from different parts of the French-speaking world, students explore the means through which individuals and groups are marginalized by mainstream designations and consider various modes and strategies of noncompliance, among them: resistance, rebellion, and identity nonconformity. Students develop language skills and content knowledge through research, discussion, analysis, argumentation, debate, and completion of real world tasks that are directly applicable to life beyond the classroom. Students work to communicate confidently in French; to use with precision grammatical structures that 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: minimum necessary grade in prerequisites and departmental approval; additional skills-based assessment if warranted.

**LNGF 420 - French Seminar**
*Full credit, meets 4 days/week*

Prerequisites: Studies in French (LNGF 410) and departmental approval (see below).

Conducted entirely in French, this course is designed for students who have had significant previous French study and who are able to function independently in a francophone environment. Students at this level demonstrate a high level of proficiency in speaking, writing, and aural and written comprehension. Students work to attain a broader appreciation of francophone cultures and unabridged literature through film, articles, literary works, and other audio visual components. The class takes a student led
discussion style format as students debate, analyze, inquire and make connections to better understand francophone cultures. The course takes into account student interests and has included topics such as: gastronomy and culinary heritage; education; introduction to the francophone world; immigration; French cinema; French Existential philosophers; the Algerian War and its impacts on modern francophone communities; and theater performance. Assessment for this class is based on interpersonal and presentational expression, both written and spoken, and consists primarily of: student-planned and facilitated classes, class projects, essays, and oral participation in class. Approval requirements: minimum necessary grade in prerequisites and departmental approval; additional skills-based assessment if warranted.
Ancient Greek

**Greek Sequence**

**LNGG 201 - Ancient Greek A**
Half credit, meets five days in every ten-day cycle
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 mythology, philosophy, science, and art have jointly helped shape the foundations of our civilization.
**LNGG 202 - Ancient Greek B**
*Half credit, meets five days in every ten-day cycle*
*Prerequisites: Ancient Greek A (LNGG201) or placement exam*

In this half-credit course, students complete the study of grammar and vocabulary essential for progressing 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**
*Half credit, meets five days in every ten-day cycle*
*Prerequisites: Ancient Greek B (LNGG 202) or placement exam*

In Ancient Greek C, students continue the study of Ancient Greek and deepen their understanding of the Classical world. The third year of study is 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.

**LNGG 301 - Ancient Greek D**
*Half credit, meets five days in every ten-day cycle*
*Prerequisites: Ancient Greek C (LNGG 203) or placement exam*

Following the introduction to epic poetry in Ancient Greek C, students in Ancient Greek D will become immersed more fully in the exploration of the narrative capacity of dactylic hexameter, the verse form in which epic poetry is composed. The class reads books from Homer’s *Iliad*, passages from Hesiod’s *Theogony*, and the *Hymn to Demeter*. Translating these poems, the class develops an appreciation of the lyrical and dramatic qualities of epic verse.
**Japanese**

**Japanese Sequence**

- **9th Grade**: Japanese 1
- **10th Grade**: Japanese 2
- **11th Grade**: Japanese 3
- **12th Grade**: Japanese 4
- **12th Grade**: Japanese 5

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**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 (LNGJ 210) 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 (LNGJ 220) or placement exam
This 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 (LNGJ 220) and departmental approval (see below)
This course parallels Japanese 3. It 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: 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 (LNGJ 230) or Japanese 3 Honors (LNGJ 231H)
This course emphasizes developing fluency based on previously acquired grammar and vocabulary. It includes a comprehensive grammar review, the addition of 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 320 - Japanese 5
Full credit, meets 4 days/week
Prerequisites: Japanese 4 (LNGJ 310)
This course is designed for students with a solid background in 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.

Full credit, meets 5 days/week
Prerequisites: Japanese 3 Honors (LNGJ 231H) or Japanese 4 (LNGJ 310) and departmental approval (see below)
This course is dedicated to the exploration of the intersections of four central themes: entertainment, Japanese history and geography, lifestyle, and formation of identity. Through close study and analysis of a selection of sources, students cultivate linguistic and cultural competency. These skills allow them to better understand and engage with the real world in Japanese. Students also gain cultural competence and understanding of traditional and modern Japanese culture. This course emphasizes creating connections and making comparisons between students’ perceptions of Japanese culture and that of their own society. Students will be familiar with and fluent in day-to-day Japanese and in Japanese culture.
Approval requirements: minimum necessary grade in prerequisites and departmental approval; additional skills-based assessment if warranted.
**LNGJ 420 - Japanese Seminar**

*Full credit, meets 4 days/week*

Prerequisites: Studies in Japanese (LNGJ 410) and departmental approval (see below)

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

Approval requirements: minimum necessary grade in prerequisites and departmental approval; additional skills-based assessment if warranted.
As depicted in the graph above, 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 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 tenth grade to Latin 4 or Studies in Latin in eleventh 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 enrolls in a half-credit Latin or Greek course 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

*Half credit, meets five days in every ten-day cycle*

*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

*Half credit, meets five days in every ten-day cycle*

*Prerequisite: HM Middle Division Classics, Latin A (LNGL 201), 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

*Half credit, meets five days in every ten-day cycle*

*Prerequisite: Latin B (LNGL 202) 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**

*Half credit, meets five days in every ten-day cycle*

*Prerequisites: Latin C (LNGL 203) 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 the 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**

*Half credit, meets five days in every ten-day cycle*

*Prerequisites: Latin D (LNGL 301) 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 (LNGL 210), Latin A (LNGL 201), 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 (LNGL 220), Latin B (LNGL 202), 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 (LNGL 220), Latin B (LNGL 202), 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: minimum necessary grade in prerequisites and departmental approval; additional skills-based assessment if warranted.  

LNGL 310 - Latin 4  
*Full credit, meets 4 days/week*  
*Prerequisite: Latin 3 (LNGL 230), Latin 3 Honors (LNGL 231H), or Latin C (LNGL 203)*  
The Latin 4 course focuses on the genres of historical narrative and literary letters (epistolae) of the 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 epistulæ. 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 410 - Studies in Latin: Rome’s Epic Narrative**

*Full credit, meets 5 days/week*

**Prerequisites:** Latin 3 Honors (LNGL 231H), Latin 3 (LNGL 230), Latin C (LNGL 203) or Latin D (LNGL 301), and departmental approval (see below)

This course is designed to spark the enthusiasm and interest of Latin students who love literature, who delight in discovering thematic connections across cultural contexts 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 grammatical structures with confidence and precision 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; and to understand different aspects of the Greco-Roman world.

Approval requirements: minimum necessary grade in prerequisites and departmental approval; additional skills-based assessment if warranted.
**LNGL 420 - Latin Seminar**

*Full credit, meets 4 days/week*

*Prerequisites:* Latin 4 (LNGL 310), Latin D (LNGL 301) or Latin E (LNGL 302), or Studies in Latin (LNGL 410) 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.

*Approval requirements:* minimum necessary grade in prerequisites and departmental approval; additional skills-based assessment if warranted.
Spanish

Spanish Sequence

**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 level 2 the following academic year.
**LNGS 220 - Spanish 2**
*Full credit, meets 4 days/week*
Prerequisites: HM Middle Division Spanish 3, Spanish 1 (LNGS 210), 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: HM Middle Division Accelerated Spanish 3 or Spanish 1 (LNGS 210) and departmental approval (see below); 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: 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 (LNGS 220)
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 the history of Latin America and Spain, and compare them with their own.
**LNGS 231H - Spanish 3 Honors**
*Full credit, meets 4 days/week*
*Prerequisites: Spanish 2 Honors (LNGS 221H) or Spanish 2 (LNGS 220) and departmental approval (see below).*
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: 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 (LNGS 230) or Spanish 3 Honors (LNGS 231H)*
In Spanish 4, students continue to develop their proficiency 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 the 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 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 through Film**
*Full credit, meets 4 days/week*
*Prerequisite: Spanish 4 (LNGS 310)*
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 410.1 - Studies in Spanish: Canciones, poetas, y revoluciones**

*Full credit, meets 5 days/week*

*Prerequisites: Spanish 3 Honors (LNGS 231H) or Spanish 4 (LNGS 310) and departmental approval*

Conducted entirely in Spanish, this course is 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, and newspaper or academic articles from different parts of the Spanish-speaking world, students engage with poets, singers and songwriters that have played a role in the construction of the contemporary Latin American and Hispanic 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 work 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 Latin American and Spanish cultures, and to make connections and comparisons between them and different disciplines or their own culture.

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

Full credit, meets 4 days/week

Prerequisites: Studies in Spanish (LNGS 410) and departmental approval

Conducted entirely in Spanish and relying on the linguistic proficiencies developed in “Studies in Spanish,” this course offers additional opportunities for in-depth study of different cultural elements and moments in history relating to the Spanish-speaking world. Using only sources directed to native Spanish speakers (i.e., films, articles, short literary works, and other audio/visual components), the class takes a discussion-style format as students debate, inquire, compare, and make connections to better understand the very diverse cultures of Spanish-speaking countries and the identities of their peoples. In doing so, students also further hone their abilities with the language. Adhering more or less to a division by semester, the course focuses primarily on Spain and Latin America. The first unit analyzes Spain from a sociological perspective that seeks to understand a country that seems to be filled with contradictions. How can it still be one of the most Catholic countries in the world while simultaneously one of the first to have recognized gay marriage? How can Spain be considered modern when it continues to practice some of the most antiquated customs, like the bullfight? Does Spain even have a national identity given its pluralistic beginnings and the autonomous loyalties that still divide it today? In analyzing Latin America, the course explores larger themes that pertain to multiple countries and span history from the time of European colonization to the present day. These include: indigenous presence and voice, US intervention, dictatorship, and emigration. While commonalities can be found throughout the region, students will also be tasked with considering the broader question of Latin America as a construct. Given the vast diversity that exists among the countries to our south, is it even valid to discuss Latin America as an all encompassing entity? The course concludes with a final unit that explores some aspects of Latino/Hispanic/Latinx identity and presence in the United States. Assessment for this class is based on interpersonal and presentational expression, both written and spoken, and consists primarily of student-planned and facilitated classes, class participation, oral presentations, and writing assignments.

Approval requirements: minimum necessary grade in prerequisites and departmental approval; additional skills-based assessment if warranted.
Courses Not Offered in 2023-24

LNGS 410.2 - Studies in Spanish: Ficciones del Sur
[Course not offered 2023-24]

Full credit, meets 5 days/week
Prerequisites: Spanish 3 Honors (LNGS 231H) or Spanish 4 (LNGS 310) and departmental approval (see below).

Conducted entirely in Spanish, Ficciones del Sur is focused on the reading and analysis of short stories in Spanish. Students will improve their proficiency through debate, reading, and writing, while interacting with original sources in interconnected tasks in the target language. A total of eight units are organized by keywords: Jungle; Magic; Libraries; Revolution; Terror; Ghosts; Migration; and Ecologies. The selection covers naturalism, magical realism, metafiction, Latin America noir, chronicles, science-fiction, personal narratives, and autofiction. Students read works by authors from Uruguay, Argentina, Chile, Bolivia, Mexico, Colombia, Brazil, El Salvador, Guatemala, and Cuba. The reading is accompanied by audio/video sources: documentaries, interviews, newspapers, contemporary artworks, and podcasts. Each participant will keep a reading journal where they will write their daily reactions to each piece. Individual journals, the compilation of the final versions of all the reactions will be submitted at the end of each semester as a final project.

Approval requirements: minimum necessary grade in prerequisites and departmental approval; additional skills-based assessment if warranted.
UD Summer Program
at Horace Mann

The central goal of the UD Summer Program is academic and artistic exploration: Upper Division students have an opportunity to enrich their understanding of and experience in the subjects they find interesting, without tying that exploration to a grade or outcome. The courses offered are a selection of experimental, experiential, and interdisciplinary explorations, and feature, above all, the pleasure of intellectual play. While some courses address building skills, many center around the principle of learning for learning's sake. Our UD Summer Program taps into the deep intellectual and artistic resources of our faculty, allowing students to learn from talented teachers in an atmosphere of joyful discovery.

The program’s focus is not on the school transcript, nor on advancement within our school-year curriculum. Our program does not offer any full-credit, credit-bearing courses. We do, however, offer classes that can be difficult for some students to fit into their schedules, depending on what languages they study and what PE classes they take. These include: CPR, Health, Lifeguarding, one art appreciation course per summer, and one Computer Science & Engineering course per summer.