

# Horace Mann School



UPPER DIVISION

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PROGRAM OF STUDIES

Academic Year 2021-2022

# **Table of Contents**

<b>Program Planning Schedule</b>	<b>1</b>
<b>Graduation Requirements</b>	<b>1</b>
<b>Department Requirements</b>	<b>2</b>
<b>Service Learning</b>	<b>3</b>
<b>Katz Library</b>	<b>4</b>
<b>Grade-by-Grade Course Lists</b>	<b>5</b>
<b>Activities</b>	<b>11</b>
<b>Upper Division Course Number Designations</b>	<b>13</b>
<b>400 Level Courses</b>	<b>13</b>
<b>Arts</b>	<b>14</b>
<b>Computer Science &amp; Engineering</b>	<b>44</b>
<b>Counseling and Guidance</b>	<b>50</b>
<b>English</b>	<b>53</b>
<b>History</b>	<b>60</b>
<b>Independent Study</b>	<b>73</b>
<b>Interdisciplinary Studies</b>	<b>74</b>
<b>Mathematics</b>	<b>75</b>
<b>Physical Education &amp; Health</b>	<b>84</b>
<b>Science</b>	<b>89</b>
<b>World Languages</b>	<b>101</b>
<b>Summer School</b>	<b>128</b>

## Program Planning Schedule 2021-2022

**Program of Studies distributed to  
students in Advisory meetings** **Wednesday, April 14<sup>th</sup>**

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.

**Submissions of Students' signed  
Course Request Forms to their Advisors  
& Online Registration** **Tuesday, May 4<sup>th</sup>**

**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

HMO (9<sup>th</sup> grade Counseling & Guidance requirement)

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

Seminar on Identity (11<sup>th</sup> grade Interdisciplinary requirement)

Advisory

Service Learning

## **Department Requirements**

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

<b>English</b>	Continuous enrollment grades nine through twelve.
<b>History</b>	Atlantic World History United States History One 300- or 400-level elective
<b>World Languages</b>	Proficiency through Level III in Chinese, French, Japanese, Latin, or Spanish.
<b>Science</b>	Biology Chemistry or Physics
<b>Mathematics</b>	Geometry Algebra II and Trigonometry
<b>Arts</b>	A total of two credits in grades nine through twelve, minimum. All students must take at least one-half credit in studio/performance, and at least one-half credit in appreciation.
<b>Physical Education &amp; Health</b>	Physical Education in grades nine through twelve, unless replaced by team membership or an approved Independent Out of School/Athletic Contract.  Certification in CPR/AED for the Professional Rescuers & Health Care Providers with First Aid.  Health 1 Health 2
<b>Computer Science &amp; Engineering</b>	One-half credit in grades nine through twelve.
<b>Counseling &amp; Guidance</b>	HMO in grade nine.
<b>Interdisciplinary</b>	SOI in grade eleven.

## **Service-Learning**

In the 2021-2022 academic year, the Upper Division requirement will be grade-wide Service-Learning Days. Attendance is required of all students for their grade's Service-Learning Day, as a graduation requirement. Dates for each grade's day will be available by the end of the 2020-2021 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 partner 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 the "trimester" schedule, similar to the athletic schedule. Students commit to a minimum of one trimester participation.

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

## **The Katz Library**

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

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

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

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

Katz Library Hours

**Monday-Friday: 8:15-5:50**

## Grade-by-Grade Course Lists

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

### Grade Nine

#### **Full credit courses:**

English 9

Atlantic World History

Biology

World Languages      Usually level 2 or 2 Honors in their chosen language, depending on the level of previous preparation and/or placement exam. Students are welcome to begin a new language at level 1.

Geometry

#### **Half credit courses:**

Physical Education  
& 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 9th or 10th grade), or Dance for PE credit.

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

Computer Science  
& Engineering      Half credit course recommended.

#### **Additional requirements:**

HMO

Advisory

Service Learning

## **Grade Ten**

### **Full credit courses:**

English 10

United States History

World Languages                      Usually level 3 or 3 Honors in their chosen language.

Chemistry or Physics Through Inquiry

Algebra II and  
Trigonometry

### **Half credit courses:**

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 9th or 10th grade), or Dance for PE credit or Varsity PE.

Half credit course recommended.

Arts

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

Computer Science  
& Engineering

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

### **Additional requirements:**

Advisory

Service Learning

## Grade Eleven

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

### **Full credit courses:**

English 11

3 or 4 other

Full credit  
courses

By the end of 10<sup>th</sup> grade, most students have satisfied minimum course graduation requirements in the Departments of World Languages, Science and Mathematics. We recommend that students maintain a balanced program and that they not stop studying in a given discipline once they have satisfied the minimum requirement. The courses 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.

World Languages

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

Science

Most students take Physics (or Chemistry, if Physics Through Inquiry was taken in the 10<sup>th</sup> grade). Students may take an elective course if the appropriate pre- or co-requisites have been fulfilled.

Mathematics

Most students take one of three precalculus course options.

Arts

Students may take a full credit class in the Visual Arts Department in place of a full-credit class in another discipline.

**Half credit courses:**

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 11th or 12th grade), or Dance for PE credit or Varsity PE.

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:**

SOI

Advisory

Service Learning

## Grade Twelve

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

### Full credit courses:

English

3 or 4 other

Full credit courses

By the end of 10<sup>th</sup> grade, most students have satisfied minimum graduation requirements in World Languages, Science, and Mathematics. We recommend that students maintain a balanced program and that they not stop studying in a given discipline once they have satisfied the minimum requirement.

The courses we list here are the next courses in the sequence; note that they are *elective* courses at this point.

History

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

World Languages

Students usually take Level 5, a Studies course, or a Seminar class. Seniors are welcome to begin a new world language.

Science

Students may take an elective course for which the appropriate pre- or co-requisites have been fulfilled.

Mathematics

Students may take a calculus course, and/or one of the other math electives offered each year.

Interdisciplinary

Students may apply to do a full-credit Independent Study in place of another full credit class.

Arts

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

**Half credit courses:**

Physical Education  
& Health

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

Arts

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

Computer Science  
& 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:**

Advisory

Service Learning

# 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:

### Fall

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

### Winter

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

### Spring

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

## Publications

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

Artsphere

Bibliomann

Business Mann

Cinemann

CO<sub>2</sub>MICS

Diagnosis

ECO

Excelsior

FAD

Folio 51

For the Culture

For the Win

HM Eats

HM Journal

ISO

LitMag

Mannikin

Manuscript

MIME Manuscript

Pixelated

Prime

Rev Mag

Spectrum

The Chronicle

The Empire

The Horace Mann History  
Journal

The Horace Mann Record

The Horace Mann Review

The Linguist

The Mantra

The Mix

The Saga

The Survey

Venture

Verdict

Voyager

## **Clubs**

Horace Mann offers a wide variety of clubs for students who wish to pursue interests not addressed by course offerings or explore in greater depth beyond the classroom. Each club is advised by a member of the Horace Mann faculty and is supported by all available school resources. We encourage students to join one or more clubs that match their interests, as these extra-curricular activities are integral to student life in the Upper Division. When planning their schedules, students should take their club commitments into consideration. It is often better to make a significant commitment to one or two clubs that are of great interest than to join an array of clubs and not have the time to actively engage in any of them. Most of the Upper Division's active clubs are listed here:

ACLU	HM Computation & Linguistics	Operation Smile
Animal Awareness	HM DECA	Parliamentary Debate
Autism Awareness Club	HMCUFC (HM Chefs United for the Culture)	Period@HM
Automotive Engineering Club	HM Talks	Poetry Out Loud
Cancer Awareness Club	HOPS (Hospital Outreach Program)	Physics Club
Chess Club	Horace Mann Business League	Programming Club
City Meals on Wheels	Horace Mann Dance Company (HMDC)	Red Cross Club
Classics Society	Horace Mann United Nations Club	Saturday Morning Music Program
Debate	Horace Mann Music Outreach Club	Saturday Morning Tutoring
Crafts for Cancer	Horace Mann Social Impact Investment Club	Science Bowl
East Wind West Wind	Horace Mann Theatre Company (HMTc)	Science Olympiad
Fashion Design Club	Jewish Culture Club	Soldiers' Stories
Feminist Students Association	Latinx Club	Spanish Club
Film Club	Lions Report	Speech Team
FRC Robotics	Mannikin	Sports Analytics
French Club	Math Team	Students for Hong Kong
FTC Robotics	Mock Trial	Sunshine Mail
Game Knights	Model Congress	Tech Club
Gender Sexuality Alliance (GSA)	NYC Interfaith Network	The Union
Girls on the Run	Operation Prom	Trivia Team
Girls Who Code		UNICEF
Glam4Good		Wellness Initiative Club
Green HM		When You Were Us
Habitat for Humanity		Women in Business
Happiness Club		Women in Science and Engineering (WISE)
HM Civic Engagement Club		

## **Upper Division Course Number Designations**

<b><u>100-level</u></b>	Pass/fail, partial year required courses
<b><u>200-level</u></b>	Foundational courses appropriate for all UD students
<b><u>300-level</u></b>	Elective courses appropriate for all UD students who have taken the prerequisite foundational coursework, typically taken in 11th/12th grade
<b><u>400-level</u></b>	Elective courses with substantial additional rigor; entry requires permission of the department. Students are generally limited to no more than 3 full-credit 400/400S level courses.
<b><u>200H / 300H</u></b> <b><u>400H-level</u></b>	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.
<b><u>300S / 400S</u></b> <b><u>level</u></b>	Seminar style courses which incorporate a significant amount of student-initiated and student-led work

### **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.

Because of the heavier workload in these courses, students are generally limited to no more than three full-credit 400-level courses in a given school year. Any students who wish to take four 400-level courses must submit a request to do so at the time that their course selections are submitted.

# 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 nine through twelve. All students must take at least one-half credit in studio/performance, and at least one-half credit in appreciation in any arts discipline.**

## Music (ARTM) Courses Offered in 2021-22

### 200-level

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

### 300-level

- ☐ Recording Studio Technology 2 (ARTM 310)

### 400-level

- ☐ Chamber Winds (ARTM 410)
- ☐ Concert Glee Club (ARTM 411)
- ☐ Treble Choir (ARTM 412)
- ☐ String Sinfonietta (ARTM 413)
- ☐ Music Theory and Composition (ARTM 420)
- ☐ Topics in Music History Seminar (ARTM 421S)

## **Theatre & Dance (ARTD) Courses Offered in 2021-22**

### **200-level**

- ☐ Acting (ARTD 210)
- ☐ Stagecraft in School - Period H Crew (ARTD 211)
- ☐ Dance Workshop (ARTD 212 / PHED 212)
- ☐ The Art of Mindfulness Yoga (ARTD 213)
- ☐ Dance in Historical and Cultural Perspective (ARTD 230)
- ☐ History of American Musical Theatre (ARTD 231)
- ☐ Performance in Major Theatre & Dance Productions (1/3 credit)
- ☐ Stagecraft Afterschool (1/3 credit)

### **300-level**

- ☐ Acting for the Camera (ARTD 310)
- ☐ Playwriting and Production (ARTD 311)
- ☐ Theatre Design and Production (ARTD 312)
- ☐ Dance Performance (ARTD 313 / PHED 313)

### **400-level**

- ☐ Musical Theatre Performance (ARTD 410S)
- ☐ Theatre Ensemble Seminar (ARTD 411S)
- ☐ Design Production Workshop (ARTD 412S)

## **Visual Arts (ARTV) Courses Offered in 2021-22**

### **200-level**

- ☐ Ceramics 1: Introduction to Ceramics (ARTV 210)
- ☐ Drawing and Painting 1: Conventions of Representation and Personal Exploration (ARTV 211)
- ☐ Sculpture 1: Intro to Sculpture (ARTV 212)
- ☐ Printmaking 1: Intro to Printmaking (ARTV 213)
- ☐ Photography 1: Understanding Light and Composition (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)
- ☐ Art History: Renaissance Art (ARTV 218)
- ☐ Film History 1: From Talkies to TikToks (ARTV 226)
- ☐ Ceramics 2: The Pottery Wheel (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: All About Color (ARTV 254)
- ☐ Filmmaking 2: Field and Studio Production (ARTV 255)

**300-level**

- ☐ Ceramics 3: Complex Forms and Surfaces (ARTV 310)
- ☐ Drawing and Painting 3: Structures of Forms and Ideas (ARTV 311)
- ☐ Sculpture 3: Contemporary Sculpture and Installation (ARTV 312)
- ☐ Printmaking 3: Themes and Variations (ARTV 313)
- ☐ Photography 3: Medium Format (ARTV 314)
- ☐ Filmmaking 3: Creating the Short Film (ARTV 315)
- ☐ Film History 2: Scene by Scene (ARTV 326)
- ☐ Ceramics 4: Building a Body of Work (ARTV 350)
- ☐ Drawing and Painting 4: Themes and Personal Invention (ARTV 351)
- ☐ Sculpture 4: Exploring Personal Themes (ARTV 352)
- ☐ Photography 4: Visual Language (ARTV 354)
- ☐ Filmmaking 4: Advanced Filmmakers Workshop (ARTV 355)

**400-level Half-credit courses**

- ☐ Directed Study in Ceramics A (ARTV 410S)
- ☐ Directed Study in D&P A (ARTV 411S)
- ☐ Directed Study in Sculpture A (ARTV 412S)
- ☐ Directed Study in Printmaking A (ARTV 413S)
- ☐ Directed Study in Photography A (ARTV 414S)
- ☐ Studies in Art History: Imagination and Fantasy in Global Art (ARTV 425)

**400-level Full-credit courses**

- ☐ Art History: What is a Masterpiece? (ARTV 415)
- ☐ Directed Study in Ceramics (ARTV 420S)
- ☐ Directed Study in D&P (ARTV 421S)
- ☐ Directed Study in Sculpture (ARTV 422S)
- ☐ Directed Study in Photography (ARTV 424S)

**Courses Not Offered in 2021-22**

- ☐ Art History: Global Architecture (ARTV 219)
- ☐ Directed Study in Art History (ARTV 426S)
- ☐ Art History: Power of Images (ARTV 316)

# Art History Course Sequence

Open to 11<sup>th</sup>/12<sup>th</sup> grades  
 C06089: Permission by dept.  
 400s level

Studies in Art History (various topics)  
 1 credit

Studies in Art History (various topics)  
 ½ credit

Open to 11<sup>th</sup>/12<sup>th</sup> grades  
 C06089: 200 or 300 class or permission by dept.  
 400 level

What is a Masterpiece?  
 1 credit

Open to 11/12 grades or 10<sup>th</sup> graders who have taken a 200 level  
 300 level

The Power of Images.  
 ½ credit

Open to ALL grades  
 200 level

Ancient Art  
 ½ credit

Renaissance Art  
 ½ credit

Contemporary Art  
 ½ credit

Global Architecture  
 ½ credit

# Music

## **200-level courses:**

### **ARTM 210 – Glee Club**

*One-half credit, meets every other day*

*Prerequisites: Audition and approval of the instructor*

*Studio/Performance credit*

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

### **ARTM 211 - Jazz Combo**

*One-half credit, meets every other day*

*Prerequisites: Audition and approval of the instructor*

*Co-requisite: Enrollment in Wind Ensemble*

*Studio/Performance credit*

This course is for students who are serious about studying and rehearsing both traditional and contemporary jazz music. The ensemble prepares for numerous performances and serves as a colloquium on the varied performing styles in jazz. Students are 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**

*One-half credit, meets every other day*

*Prerequisites: Audition and approval of the instructor*

*Studio/Performance credit*

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

**ARTM 213 - Steel Drum Ensemble**

*One-half credit, meets every other day*

*Prerequisites: None*

*Studio/Performance credit*

This ensemble is designed to expose students to steel drum band works from a variety of musical styles. Students develop the skills necessary to perform musical works from genres such as samba, calypso, pop and reggae. Some class time is devoted to exploring the history and social relevance of the steel band movement. The ability to read music is not required, but 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**

*One-half credit, meets every other day*

*Prerequisites: Audition and approval of the instructor*

*Studio/Performance credit*

The Wind Ensemble performs both new and standard wind band works. The group performs three major concerts throughout the school year. Advanced members of the Wind Ensemble may be invited to perform additional concerts and repertoire with chamber ensembles. Participation in all dress rehearsals and concerts is required. Students in all grades may audition for the Wind Ensemble.

**ARTM 215 - Recording Studio Technology 1**

*One-half credit, meets every other day*

*Prerequisites: Approval of the instructor*

*Open to students in Grades 10-12*

*Studio/Performance credit*

This course is a hands-on study of modern music creation utilizing Horace Mann's ProTools-equipped recording studio. Students study the nature of sound and vibrating bodies, sound generating devices, as well as how to record, manipulate, mix, and master music. Previous experience in a performing group or private music lessons, strong computer skills, and Music Theory (ARTM 233) are strongly recommended.

**ARTM 230 - Great Music of Modern Times**

*One-half credit, meets every other day*

*Prerequisites: None*

*Appreciation credit*

We all love listening to music, but why do we like some artists and not others? Why do some recordings stand up to repeat listening, while others turn out to be passing fads? From Mahler and Bernstein to Jimi Hendrix and Radiohead, there are common elements that have

added to the rich, fertile musical soil we know today. In this course, students will learn how to thoughtfully listen and analyze music to search for answers to these questions. Along the way, students will explore select examples of many different genres and expand their knowledge and awareness of contemporary music.

**ARTM 231 - History of Jazz**

*One-half credit, meets every other day*

*Prerequisites: None*

*Appreciation credit*

This course focuses on the development of jazz in America as it has manifested itself in cities such as New Orleans, Kansas City, Chicago, and New York. Tracing jazz's roots 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 20<sup>th</sup> century. Students should expect occasional guest performances in class and may have to attend one live jazz event as a class.

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

*One-half credit, meets every other day*

*Prerequisites: None*

*Appreciation credit*

This course provides students with an overview of Western classical music history. Through listening, viewing, and analyzing representative musical works from all major style periods, students will study the evolution of each style period, Western harmony, as well as noteworthy composers and the cultures and times in which they created their work.

**ARTM 233 - Music Theory**

*One-half credit, meets every other day*

*Prerequisites: None*

*Appreciation credit*

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

**300-level courses:****ARTM 310 – Recording Studio Technology 2**

*One-half credit, meets every other day*

*Prerequisites: Approval of the instructor and the successful completion of Recording Studio Technology 1 (ARTM 215)*

*Open to students in grades 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**

*One-half credit, meets every other day*

*Prerequisites: Audition and approval of the instructor*

*Co-requisite: Wind Ensemble*

*Studio/Performance credit*

Chamber Winds is an advanced wind and percussion group that focuses on classic and contemporary works for chamber ensemble. This select ensemble performs at least 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**

*One-half credit, meets every other day*

*Prerequisites: Audition and approval of the instructor*

*Open to students in Grades 10-12*

*Studio/Performance credit*

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

**ARTM 412 - Treble Choir**

*One-half credit, meets every other day*

*Prerequisites: Audition and approval of the instructor*

*Open to students in Grades 10-12*

*Studio/Performance credit*

The Treble Choir is a select ensemble open to treble singers in grades 10, 11, and 12 that performs advanced choral literature from a large range of musical traditions. The ensemble performs four to eight times a year both on and off campus. Students are encouraged to take private lessons while in this ensemble. Participation in all dress rehearsals and concerts is required.

**ARTM 413 - String Sinfonietta**

*One-half credit, meets every other day*

*Prerequisites: Audition and approval of the instructor*

*Co-requisite: Orchestra*

*Studio/Performance credit*

The String Sinfonietta is a select ensemble that performs advanced string repertoire from a wide variety of eras and musical traditions, with special attention given to works composed in the last one hundred years. In addition, members of Sinfonietta are expected to serve as musical leaders of the HM Orchestra community, and to actively contribute to the well being of both UD and MD ensembles. The ensemble performs a minimum of four times a year, both on and off campus. Private music lessons are encouraged and attendance at all dress rehearsals and concerts is mandatory.

**ARTM 420 - Music Theory and Composition**

*Full credit, meets 5 days/week*

*Prerequisites: Departmental approval*

*Appreciation credit*

This course is designed to develop a student's ability to understand, manipulate, and create music. Through a series of compositional assignments, the analysis of form and structures, aural recognition, sight singing, and dictation, students will gain a much deeper understanding of musical composition, as well as a greater understanding of musical analysis. By the end of the year, the students can expect to have created a portfolio of original compositions for a variety of instruments and ensembles.

**400S-level courses:****ARTM 421S - Topics in Music History Seminar**

*Full credit, meets 5 days/week*

*Prerequisites: Departmental approval*

*Open to students in Grades 11 and 12*

*Appreciation credit*

This is a topics-based course for students with advanced knowledge in music history and analysis. This class explores and examines musical traditions from around the world and challenges students to analyze music's function and role from cultural and political perspectives. Independent research, class presentations, discussions, listening/viewing sessions, and reading assignments may be supplemented by field trips to musical events in New York City.

**Private Music Lessons**

Lessons meet once per week during students' free periods or after school and do not fulfill graduation requirements in Arts. Arranged through the Music Department office, Private Music lessons are available to students in all grades. Lessons are given once a week by professional musicians on the staff of the department and are available on all instruments, including voice. All students taking private lessons are expected to practice diligently and come to their lessons prepared. Students pay an annual fee of \$1,500.00.

## Theatre & Dance

### 200-level courses:

#### **ARTD 210 - Acting**

*One-half credit, meets every other day*

*Prerequisites: None*

*Studio/Performance credit*

Acting is for students who are interested in the history and fundamentals of Acting. Skills covered include physical behavior, stage movement, voice and speech, character development, improvisation, and historical or period drama. Using the work of contemporary and classical playwrights, students begin to develop their own technique. We open our studio to the school community for in-class performances at least once per semester. Attending performances outside of Horace Mann in addition to all school productions is a requirement of the course. Students who take this course are prepared for Theatre Ensemble Seminar and Acting for the Camera.

#### **ARTD 211 - Stagecraft in School - Period H Crew**

*One-half credit, meets every other day*

*Prerequisites: None*

*Studio/Performance credit*

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

#### **ARTD 212 - Dance Workshop for Arts Credit**

#### **PHED 212 - Dance Workshop for PE Credit**

*Meets every other day*

*Prerequisites: Participation in after-school sports does not exempt students from Dance Workshop*

*Studio/Performance one-half credit or PE credit*

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

Modern Dance, Jazz, Tap, Hip-Hop and an awareness of other world dance influences. Training includes warm-up, improvisation, alignment, stretching exercises, and traveling combinations. Rhythmic awareness and the relationship of music to dance is stressed throughout.

### **ARTD 213 - The Art of Mindfulness Yoga**

*One-half credit, meets every other day*

*Prerequisites: None*

*Studio/Performance credit*

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

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

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

### **ARTD 230 - Dance in Historical and Cultural Perspective**

*One-half credit, meets every other day*

*Prerequisites: None*

*Appreciation credit*

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

**ARTD 231 - History of American Musical Theatre**

*One-half credit, meets every other day*

*Prerequisites: None*

*Appreciation credit*

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

**ARTD 201 - Performance in Major Theatre & Dance Productions**

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

*Prerequisites: Auditions*

*Studio/Performance credit*

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

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

**ARTD 202 - Stagecraft Afterschool**

*One-third credit, meets Tuesdays and Thursdays from end of school until 5:45pm.*

*Prerequisites: None*

*Studio/Performance credit*

Four fully-staged productions of important examples of world theatre are undertaken each year. Through them, students explore the art of theatre in all of its complexity. The Horace Mann Theatre Company aims to create the most professional productions possible. Students learn technical skills such as carpentry, painting, sound engineering, and theatrical lighting, and gain experience in making commitments and meeting deadlines. To take this course, the student must simply attend crew on one of the first three crew days

in a trimester and commit to the Technical Crew for that trimester. The faculty will register the members of the class at the end of the second week of meetings.

### **300-level courses:**

#### **ARTD 310 - Acting for the Camera**

*One-half credit, meets every other day*

*Prerequisites: Acting (ARTD 210) or by approval of the instructor*

*Grades 10-12*

*Studio/Performance credit*

This course provides practical instruction for acting on camera and navigating a film set. The fundamental techniques covered in Acting 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 collaborate with students taking Film II to create unique on-screen moments. The class watches and discusses a wide variety of on-screen performances and applies observations to their own craft. On-camera performances are shared with the larger Horace Mann community at least once a semester as a course requirement. This course is specifically geared to the 10<sup>th</sup>-12<sup>th</sup> grade actor, but is open to anyone with an interest in developing confidence and skills on camera.

#### **ARTD 311 - Playwriting and Production**

*One-half credit, meets every other day*

*Prerequisites: Submission of a short scene and approval of the instructor*

*Grades 10-12*

*Studio/Performance credit*

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 in addition to all school 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 - Theatre Design and Production**

*One-half credit, meets every other day*

*Prerequisites: None*

*Studio/Performance credit*

Theatre Design and Production 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 Horace Mann Theatre Company's season.

**ARTD 313 - Dance Performance for Arts Credit****PHED 313 – Dance Performance for PE Credit**

*Meets every other day*

*Prerequisites: Approval of the instructor*

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

*Studio/Performance one-half credit or PE credit*

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

**400-level courses:****ARTD 410S - Musical Theatre Performance**

*One-half credit, meets every other day*

*Prerequisites: At least 1 credit (2 half credits) in any combination of Acting, Dance Workshop, Dance Performance, Glee Club, Concert Glee Club, Treble Choir, or successful participation in school sponsored theatrical productions.*

*Auditions for this class will be held in the Spring for the following Fall.*

*Grades 11-12*

*Studio/Performance credit*

Through individualized instruction and small group work, students identify areas of artistic growth and work with their instructors to select and learn material from the Musical Theatre. Students have

time in class to prepare and perform their pieces in a studio setting. In this course students approach the works of the Musical Theatre from the perspective of both actors and musicians. Students work together and independently to create a book of repertoire that is representative of the world of musical theatre, their personality, and skill set. Performances showcasing this work are open to the greater school community.

### **ARTD 411S - Theatre Ensemble Seminar**

*One-half credit, meets every other day*

*Prerequisites: Priority is given to students who have previously been in an HMTC production 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 take their theatrical studies to the next level. Units of study include advanced acting techniques (movement, voice/speech, character analysis, and improvisation), directing, playwriting, devised theatre and much more. The course is highly student-driven and designed to put the creative voices of students front and center stage. Through a playful, sometimes experimental, and hands-on environment, the course aims to build upon the basic principles of acting and performance while simultaneously fostering the creative ideas and vision of the students enrolled in it. We will 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.

### **ARTD 412S - Design Production Workshop**

*One-half credit, meets every other day*

*Prerequisites: Theatre Design and Production*

*Grades 10-12*

*Studio/Performance credit*

This class is a continuation of concepts studied in Theatre Design and Production. Students work on further refining their skills in drafting, model making, 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.

## 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**

*One-half credit, meets every other day*

*Prerequisites: None*

*Studio/Performance*

This course is a beginning level adventure in utilizing clay as a fine art medium. Basic clay forming techniques will be explored, including pinch, coil, slab construction, and the potter's wheel. Students learn the basics of using clay as a vehicle for self-expression, focusing on utilitarian and sculptural forms. Students acquire the basic skills and technical knowledge needed to gain an understanding of the nature of working in the ceramics medium.

#### **ARTV 211 - Drawing & Painting 1: Conventions of Representation and Personal Exploration**

*One-half credit, meets every other day*

*Prerequisites: None*

*Studio/Performance*

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

**ARTV 212 - Sculpture 1 - Introduction to Sculpture**

*One-half credit, meets every other day*

*Prerequisites: None*

*Studio/Performance*

Sculpture 1 is an introduction to fundamental sculpture materials and techniques. Students will be working with their hands to mold, cast, carve, and assemble a variety of materials such as wire, plaster, paper 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**

*One-half credit, meets every other day*

*Prerequisites: None*

*Studio/Performance*

Printmaking 1 is an introduction to the wide range of printmaking techniques. Students will explore basic techniques including paper marbling, rubbings, monoprints, linoleum carving, silkscreen, and etching. Each printmaking method will explore a different approach to image making both visually and thematically. From delicate prints on rice paper, to posters, and tshirts, printmaking is an exciting way to explore creating multiples.

**ARTV 214 - Photography 1: Understanding Light and Composition**

*One-half credit, meets every other day*

*Prerequisites: None*

*Studio/Performance*

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

**ARTV 215 - Filmmaking 1: The Art of Visual Storytelling**

*One-half credit, meets every other day*

*Prerequisites: None*

*Studio/Performance*

Filmmaking 1 is an introductory course in digital cinema production. Students learn camera, audio, and lighting techniques, along with the editing software, Adobe Premiere Pro. Workshops in screenwriting, storyboarding, shooting, and editing help students learn the art of visual storytelling in a time-based medium. Projects explore narrative,

documentary, and experimental genres. Students work both individually and in crews. This course requires no previous knowledge or skills in the medium.

**ARTV 216 - Art History: Art of the Ancient World**

*One-half credit, meets every other day*

*Prerequisites: None*

*Appreciation*

The very definition of “Ancient Art” is one that is constantly re-evaluated by art historians. We will begin this course in “pre-history,” debating what qualifies as art, and study similarities (and differences) between works that were made in different parts of the world. From Algeria’s Tassili N’ajjer cave paintings to China’s Terracotta Army, students will look 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 class meetings, we will make use of the vast resources of New York City through required trips to museums, buildings, and monuments.

**ARTV 217 - Art History: Contemporary Art**

*One-half credit, meets every other day*

*Prerequisites: None*

*Appreciation*

This course introduces students to architecture, painting, sculpture, and other media created by artists from the 19<sup>th</sup> century to the present. The course provides an in-depth study of the origins of Modernism, and allows students to explore works by artists such as Beyoncé, Edouard Manet, Claude Monet, Barbara Kruger, Faith Ringgold, Basquiat, and many others. Works are placed in the social, political and cultural context of their production, offering students an understanding of modern history in addition to the crucial skills of formal analysis. Museum and various NYC site visits are an exciting requirement of this course.

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

*One-half credit, meets every other day*

*Prerequisites: None*

*Appreciation*

This course is designed to provide a foundational knowledge of artists, genres, techniques, works, and comprehensive context(s) of the Renaissance in both Southern and Northern Europe. Seminal works of art will be explored in depth and students will be given the opportunity to ponder canonic images by artists such as Raphael, Michelangelo, Leonardo, Hieronymus Bosch, and Pieter Bruegel the

Elder. Along with a greater understanding of history, students will gain the ability to “read” Renaissance images and consider their impact on art and philosophies across the world. Architecture and museum assignments are a vital and exciting portion of this course.

### **ARTV 226- Film History 1: From Talkies to TikToks**

*One-half credit, meets every other day*

*Prerequisites: None*

*Appreciation*

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**

*One-half credit, meets every other day*

*Prerequisites: Ceramics 1 or departmental approval*

*Studio/Performance*

This course is an exploration of the potter’s wheel as a means to form utilitarian and sculptural ceramic vessels. Students build upon their knowledge and skills from “Introduction to Ceramics,” while advancing their wheel throwing abilities by designing and creating wheel thrown cylinders, bowls, mugs, vases and pitchers. Reduction glazes, slips, and other decoration techniques are explored. This course focuses on technique and skill-building while leaving room for creative input.

### **ARTV 251 - Drawing & Painting 2: Naturalism, Abstraction, and Imagination**

*One-half credit, meets every other day*

*Prerequisites: Drawing & Painting 1*

*Studio/Performance*

Lessons in visual perception, communication and expression through pictures, from world historical traditions to contemporary practices. This course is designed to acquaint students with universal principles and cultural specifics of the pictorial arts. Sequential lessons will tell the story of our shared pictorial heritage, with an emphasis on concepts, history, themes and selected mediums. Students create artwork that illustrates and enhances the ideas covered in class. Attention to artistic scholarship, fine craft and skill development is emphasized. In this class students will be expected to learn specific

approaches and techniques in the spirit of artistic inquiry; through that discipline, creative individuality will come.

**ARTV 252 - Sculpture 2: Mixed Media**

*One-half credit, meets every other day*

*Prerequisites: Sculpture 1*

*Studio/Performance*

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**

*One-half credit, meets every other day*

*Prerequisites: Printmaking 1*

*Studio/Performance*

Printmaking 2 will develop further upon printmaking methods learned in Printmaking 1 as well as 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: All About Color**

*One-half credit, meets every other day*

*Prerequisites: Photography 1*

*Studio/Performance*

Photography 2 is an intermediate photo course that focuses on color theory, as applied in digital and color film. An emphasis is placed on portraiture both in the studio and in the field. Students learn how to connect with their subjects as they shape available light and experiment with various studio setups. Workshops in the digital lab include portrait retouching, compositing, negative scanning, and digital printing.

**ARTV 255 - Filmmaking 2: Field and Studio Production**

*One-half credit, meets every other day*

*Prerequisites: Filmmaking 1 or the Horace Mann Summer Film Institute or departmental approval*

*Studio/Performance*

Filmmaking 2 dives more deeply into both individual field production and collaborative studio shoots. Students learn how to

participate in all roles of a film crew, including but not limited to directing, lighting, camera operating, boom pole operating, slating, and production coordinating. Specialty equipment such as gimbals and dollies are introduced and utilized in order to support more advanced camera movements and cinematic styles. Students collaborate with actors and sound designers to turn the HM campus into a film set.

### **300-level courses:**

#### **ARTV 310 - Ceramics 3: Complex Forms and Surfaces**

*One-half credit, meets every other day*

*Prerequisites: Ceramics 1 and 2 or departmental approval*

*Studio/Performance*

The sequel to “The Pottery Wheel” leads students through a series of challenging assignments that advances their expertise on the pottery wheel while expanding their concept of ceramic art. Design and creation of pots for daily use will be explored, including lidded jars, plates and teapots, along with exploring vessels and sculptures constructed from wheel thrown parts. Advanced glazing and firing techniques will also be explored.

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

*One-half credit, meets every other day*

*Prerequisites: Drawing and Painting 2 or departmental approval*

*Studio/Performance*

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

#### **ARTV 312 - Sculpture 3: Contemporary Sculpture and Installation**

*One-half credit, meets every other day*

*Prerequisites: Sculpture 2 or departmental approval*

*Studio/Performance*

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**

*One-half credit, meets every other day*

*Prerequisites: Printmaking 2 or departmental approval*

*Studio/Performance*

Printmaking 3 will allow advanced students to develop upon their printmaking practice to create a series of works based on a theme. Students will be able to explore printmaking methods of their choice. They may choose to combine methods to create their own style as well as branch out from the print to incorporate unconventional materials/processes. Students are encouraged to explore their ideas more deeply in a series and to write personal statements about their work.

**ARTV 314 - Photography 3: Medium Format**

*One-half credit, meets every other day*

*Prerequisites: Photography 2 or departmental approval*

*Studio/Performance*

Photography 3 is an advanced class for capable photographers. In this course, students become art directors and art dealers as we explore the worlds of fine art and commercial image-making. Students work in teams to produce cover fashion stories and travel in groups to shoot street photography around New York City. The medium format is introduced through cityscape/landscape and studio photography. Additional camera and alternative processing assignments include polaroid photography, cyanotypes, and salt prints.

**ARTV 315 - Filmmaking 3: Creating the Short Film**

*One-half credit, meets every other day*

*Prerequisites: Filmmaking 2 or departmental approval. Horace Mann Summer Film Institute is equivalent to 1 year of Filmmaking.*

*Studio/Performance*

This intermediate-to-advanced filmmaking course builds upon the conceptual, artistic, and technical skills learned in Filmmaking 1 & 2. We continue to explore film language through workshops such as Directing the Actor, Genre Lighting Techniques, Production Sound, Color Grading, and Audio/Visual Effects. Students practice on-set communication protocols as they work together in teams. Advanced editing workshops include units on Live Editing, Parallel Action Sequences, Jump Cuts, Radio Edits, and Experiments in Tone and Music.

**ARTV 326- Film History 2: Scene by Scene**

*One-half credit, meets every other day*

*Prerequisites: Film History 1: From Talkies to TikToks*

*Appreciation*

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.

**ARTV 350 - Ceramics 4: Building a Body of Work**

*One-half credit, meets every other day*

*Prerequisites: Ceramics 3 or departmental approval*

*Studio/Performance*

Students work towards creating a cohesive body of ceramic artwork. Working on an independent basis, students develop their personal ideas and vision as ceramic artists. Creative problem solving and self-expression are paramount as students explore new techniques and concepts and create a portfolio of ceramics artwork. Each student's body of work will be the subject of group discussions and exhibitions throughout the school year.

**ARTV 351 - Drawing & Painting 4: Portfolio Themes and Personal Invention**

*One-half credit, meets every other day*

*Prerequisites: Drawing & Painting 3 or departmental approval*

*Studio/Performance*

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

**ARTV 352 - Sculpture 4: Exploring Personal Themes**

*One-half credit, meets every other day*

*Prerequisites: Sculpture 3 or departmental approval*

*Studio/Performance*

Sculpture 4 is an advanced course in which students will explore materials and concepts of their choice to develop a series of works. There will be a stronger focus on the research of materials and techniques to discover personal approaches to sculpture as well as

developing personal concepts to express meaning through sculpture. The class will come together to give one another feedback throughout the process, from brainstorming, to in progress feedback and final critiques. The instructor will be available for advice and technical help.

#### **ARTV 354 - Photography 4: Visual Language**

*One-half credit, meets every other day*

*Prerequisites: Photography 3 or departmental approval*

*Studio/Performance*

Photography 4 is an advanced photo course designed to help students define their visual languages as they pull from their life experiences to create original content. Projects can include large-scale collage work, an advertising campaign, double exposure using 35mm film, portraits using the 4x5 view camera, a time capsule, and lomography.

#### **ARTV 355 - Filmmaking 4: Advanced Filmmakers Workshop**

*One-half credit, meets every other day*

*Prerequisites: Filmmaking 3, or departmental approval. Horace Mann Summer Film Institute is equivalent to 1 year of Filmmaking.*

*Studio/Performance*

Filmmaking 4 students work on largely self-directed films throughout the year and come together during class time to support each other's visions by providing feedback and sharing resources. Students practice The Art of the Pitch as they describe the themes, plotlines, genres, and logistics of their film ideas to their classmates. Advanced workshops focus on Shot Language, Mise-en-Scène, Production Design, Creating Shooting Schedules and Call Sheets, and Multi-Track Editing.

#### **400-level Half-credit courses:**

#### **ARTV 410S - Directed Study in Ceramics A**

*One-half credit, meets every other day*

*Prerequisites: Ceramics 3 and departmental approval*

*Studio/Performance*

Students will work towards creating a cohesive body of ceramic artwork. Working on an independent basis, students will develop their personal ideas and vision as ceramic artists. Creative problem solving and self-expression are paramount as students explore new techniques and concepts and create a portfolio of ceramics artwork. Each student's body of work will be the subject of group discussions and exhibitions throughout the school year.

**ARTV 411S - Directed Study in Drawing and Painting A**

*One-half credit, meets every other day*

*Prerequisites: Drawing & Painting 3 and departmental approval*

*Studio/Performance*

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

**ARTV 412S - Directed Study in Sculpture A**

*Full credit, meets 4 days/week*

*Prerequisites: Sculpture 3 and departmental approval*

*Studio/Performance*

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, from brainstorming, to in progress feedback and final critiques. The instructor will be available for advice and technical help.

**ARTV 413S – Directed Study in Printmaking A**

*One-half credit, meets every other day*

*Prerequisites: Printmaking 3 and departmental approval*

*Studio/Performance*

Directed Study in Printmaking allows advanced students to create projects from their personal vision. Students will independently devise their concepts and be able to use class as studio time to create their work. The class will come together to give one another feedback throughout the process, from brainstorming to in progress and final critiques. The instructor will be available for advice and technical help with their vision.

**ARTV 414S - Directed Study in Photography A**

*One-half credit, meets every other day*

*Prerequisites: Photography 3 and departmental approval*

*Studio/Performance*

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.

**ARTV 425 - Studies in Art History: Imagination and Fantasy in Global Art**

*One-half credit, meets every other day*

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

*Grades 11-12*

*Appreciation*

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 415 - Art History: What is a Masterpiece?**

*Full credit, meets 4 days / week*

*Prerequisites: Departmental approval*

*Grades 11-12*

*Appreciation*

This course will ask students to think deeply and critically about a limited number of objects, privileging depth over breadth. We will focus on approximately 30 objects during the course of the year, each of which will allow students to think critically about works of art beyond the curriculum. This course will encourage students to think about and engage in critical discussion of the visual arts while attempting to define what qualifies as a "masterpiece". We will discuss the perceived differences between “high” and “low” art and between craft and concept. We will look at work as disparate as contemporary music videos and ancient cave paintings. This advanced curriculum will challenge students’ conceptions of “genius” and introduce them to a wide range of possibilities of artistic expressions, to which the response may or may not be universal.

**ARTV 420S - Directed Study in Ceramics**

*Full credit, meets 4 days/week*

*Prerequisites: Ceramics 3 and departmental approval*

*Studio/Performance*

Students will work towards creating a cohesive body of ceramic artwork. Working on an independent basis, students will develop their personal ideas and vision as ceramic artists. Creative problem solving and self-expression are paramount as students explore new techniques and concepts and create a portfolio of ceramics artwork. Each student's body of work will be the subject of group discussions and exhibitions throughout the school year.

**ARTV 421S - Directed Study in Drawing and Painting**

*Full credit, meets 4 days/week*

*Prerequisites: Drawing & Painting 3 and departmental approval*

*Studio/Performance*

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

**ARTV 422S - Directed Study in Sculpture**

*Full credit, meets 4 days/week*

*Prerequisites: Sculpture 3 and departmental approval*

*Studio/Performance*

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, from brainstorming, to in progress feedback and final critiques. The instructor will be available for advice and technical help.

**ARTV 424S - Directed Study in Photography**

*Full credit, meets 4 days/week*

*Prerequisites: Photography 3 and departmental approval.*

*Studio/Performance*

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.

### **Courses Not Offered in 2021-22**

#### **ARTV 219 - Art History: Global Architecture**

**[Not offered in 2021-22]**

*One-half credit, meets every other day*

*Prerequisites: None*

*Appreciation*

This course is designed to provide a foundational knowledge of global architecture, both sacred and secular. Ultimately, students will be able to think critically about why buildings appear as they do, and even have opportunities to design their own dream structures. The first semester is titled Sacred Spaces. Students will discuss various belief systems from around the globe and learn about architectural forms built to support/further/facilitate rituals for those beliefs. Students will be exposed to architectural forms from around the world thinking critically, for instance, about why a Hindu temple appears and is experienced differently from a Christian basilica. The second semester is called Modernism, Materials, and Machines. During this half of the year students will explore the changes that nineteenth century building materials created in architectural forms. They will consider the use of iron, steel, and glass, and move through the modern world of architecture to the machine age. Finally, students will study contemporary architecture and the use of computers to plan structures that cease to look inhabitable or functional and yet are built.

#### **ARTV 426S - Directed Study in Art History**

**[Not offered in 2021-22]**

*Full credit, meets 4 days / week.*

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

*Grades 11-12*

*Appreciation*

This is a topics-based course for students advanced in their art historical knowledge. Students will explore works of art chosen by them through various theoretical and historical lenses. Works discussed will span historical periods and geographies, allowing us to balance formal qualities with contexts of creation, while thinking about the universality of art. This is a rigorous seminar course.

**ARTV 316 - Art History: The Power of Images**

**[Not offered in 2021-22]**

*One-half credit, meets every other day*

*Prerequisites: Open to all 11th/12th graders and 10th graders who have taken a 200-level Art History course.*

***Appreciation***

The Parthenon, Snap stories, Egyptian Pyramids, Instagram filters, the Mona Lisa, Beyoncé music videos; all seemingly different objects, yet all comprise our visual world. We are all both makers and consumers of images, yet very few of us learn visual literacy, and how to navigate the world of art. This course will explore the subconscious ways we are manipulated by images, how the history of art informs our understanding of the world, and how we can be more aware, critical, and in charge of our visual experience. This course is organized by theme rather than chronology, thus encouraging students to make visual connections beyond the boundaries of geography and time. This course teaches students both techniques of art historical analysis and urges a meta look at the discipline itself.

# Computer Science & Engineering

## Requirements:

**One-half credit course in grades 9-12**

## Courses Offered in 2021-22

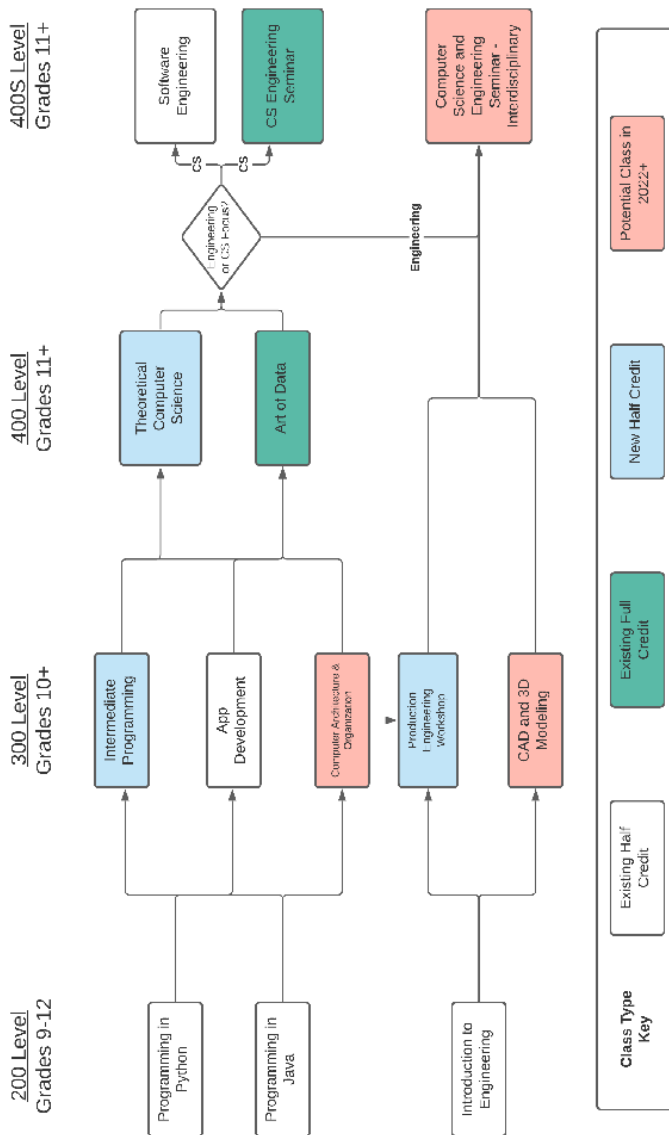
### Half-credit courses

- ☐ Programming in Python (CMPE 210.01)
- ☐ Programming in Java (CMPE 210.02)
- ☐ Introduction to Engineering (CMPE 215)
- ☐ App Development (CMPE 310)
- ☐ Intermediate Programming (CMPE 320)
- ☐ Production Engineering Workshop (CMPE 325)
- ☐ Theoretical Computer Science (CMPE 410)
- ☐ Software Engineering (CMPE 430S)

### Full-credit courses

- ☐ Art of Data (CMPE 411)
- ☐ Computer Science Seminar (CMPE 431S)

# Computer Science & Engineering Course Offerings 2021-2022



## Computer Science & Engineering

At a time when technology in the modern world is rapidly evolving, the curriculum in the Department of Computer Science & 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 & 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.

### **Requirements:**

One-half credit course in grades nine through twelve.

### **200-level courses:**

#### **CMPE 210.01 - Programming in Python**

*One-half credit, meets every other day*

*Prerequisites: None*

In this introductory-level course, students will create computational artifacts using the programming language of Python. An artifact might be creating a computer program, designing a website or prototyping a new gadget. The student becomes the producer by studying the insides of the computer from hardware to software. Students will explore how they interact with technology including both the physical buttons and icons they press and the societal and ethical implications of their actions. Programming in Python takes students beyond being just users of technology, to becoming computer scientists. Topics will include exposure to programming principles, data representation, and engineering tasks through physical computing. This course is appropriate for students who have no previous programming experience. Students with some experience in Python are thus encouraged to also consider Programming in Java to provide exposure to a new programming language.

**CMPR 210.02 - Programming in Java**

*One-half credit, meets every other day*

*Prerequisites: None*

In this introductory-level course, students will create computational artifacts using the programming language of Java. An artifact might be creating a computer program, designing a website or prototyping a new gadget. The student becomes the producer by studying the insides of the computer from hardware to software. Students will explore how they interact with technology including both the physical buttons and icons they press and the societal and ethical implications of their actions. Programming in Java takes students beyond being just a user of technology, to becoming computer scientists. Topics will include exposure to programming principles, data representation, and engineering tasks through physical computing. This course is appropriate for students who have no previous programming experience. Students with some experience in Java are thus encouraged to also consider Programming in Python to provide exposure to a new programming language.

**CMPE 215 - Introduction to Engineering**

*One-half credit, meets every other day*

*Prerequisites: None*

This course encourages creativity and celebrates ingenious solutions to engineering and mechanical problems through the design and construction of purpose-built devices. Students in this course will learn the Engineering Design Process through project-based lessons and will then apply that knowledge in our Robotics Innovations Lab where they will research design, construct, and improve upon new and existing physical objects.

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

**300-level courses:****CMPE 310 - App Development**

*One-half credit, meets every other day*

*Prerequisites: 200-level Computer Science course*

The App Development course will give students practical experience with the tools, techniques, and concepts needed to design and build basic apps from the ground up. This is a project-based course that will allow students to explore user-centered design strategies, consider ethical questions in software development, and dive deeper into programming fundamentals.

**CMPE 320 - Intermediate Programming**

*One-half credit, meets every other day*

*Prerequisites: 200-level Computer Science course.*

Intermediate Programming builds on foundational programming concepts covered in the introductory classes. This course prepares students to quickly and confidently translate their programming skills from one language to another. Students will also learn how to design and organize complex programming projects. Topics include using the terminal, object oriented programming techniques, functional programming techniques, and data structures. Readings explore the socio-political impacts of technology on the world. This course is taught in Scala.

**CMPE 325 - Production Engineering Workshop**

*One-half credit, meets every other day*

*Prerequisites: Introduction to Engineering*

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. 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 Full-credit courses:****CMPE 411 - Art of Data**

*Full credit, meets 4 days/week*

*Prerequisites: A- or higher in Intermediate Programming or App Development*

Art of Data prepares students to approach, investigate, and present their findings of data, with the understanding that it is not enough to look only at the numbers. This course teaches students how to use their computer science skills to interpret the many statistics and graphs they encounter in their everyday lives. Students learn not only how to answer questions with data, but also how to ask good questions. Readings about both historic and current events are assigned to explore the social impact of data, and students are tasked with thinking about strategies to tackle the many inequities

that data science perpetuates. Students finish this course with a comprehensive portfolio.

### **CMPE 431S - Computer Science Seminar**

*Full credit, meets 4 days/week*

*Prerequisites: A- or higher in Art of Data or Theoretical Computer Science and departmental approval.*

The Computer Science and Engineering Seminar course is designed to provide students with the opportunity to engage with complex topics and apply them in practical applications. This course will emphasize the importance of the collaboration and combination of both the software and hardware components of any technological project. Students, no matter their interest, will complete the course with respect for both Software and Hardware, and a stronger understanding of how both work together to advance technology. The Computer Science topics will vary from year to year.

### **400 level Half-credit courses:**

#### **CMPE 410 - Theoretical Computer Science**

*One-half credit, meets every other day*

*Prerequisites: A- or higher in Intermediate Programming*

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. This course focuses on how abstractions of real-world situations lead to algorithms and mathematical proofs of correctness and efficiency. Students gain a nuanced understanding of the questions “What is a computer, and what can it do?” through the study of theoretical models of computing. Readings provide insight into the image of computer science in broader contexts, including current events articles, science fiction, and research publications.

#### **CMPE 430S - Software Engineering**

*One-half credit, meets every other day*

*Prerequisites: A- or higher in Art of Data or Theoretical Computer Science, and departmental approval.*

Software Engineering immerses students in the process of creating software and highlights how the field is one that walks a fine line between the creative and scientific. Students engage in a series of projects that hone their ability to design, document, and test their code. These projects require students to work in teams, as they learn how to effectively communicate and delegate. Topics include user-centered design, version control systems, optimization techniques, and code review. This course is taught using multiple programming languages, and projects will vary from year to year.

# Counseling & Guidance

## **Requirements:**

**Grade 9      HMO (GUID 110)**

## **Elective Courses in 2020-21**

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

**100-level courses:****GUID 110 - Horace Mann Orientation**

*9th grade requirement, meets 1 day/week*

*Prerequisites: None*

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

**300-level courses:****PSYC 310 - Introduction to Psychology**

*Full credit, meets 4 days/week*

*Prerequisites: None*

This year-long course is a survey of the field of psychology, including the theories, research, and applications central to the discipline. The goal of the class is to engage students in exploration of the science of psychology and applications to everyday life. Psychology offers the opportunity to better understand our own and others' thoughts, feelings, and behaviors by viewing the human experience from multiple perspectives. 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 lecture. Papers and projects challenge students to apply theories to analyze their own lives, fictional characters, and current events. An extra credit opportunity offered each semester allows students to pursue their own interests in greater depth.

**GUID 311 - Ethics in School and Society**

*Full credit, meets 4 days/week*

*Prerequisites: None*

What is a good life? What is the purpose of education? How do we understand inequality? Are people naturally selfish or altruistic?

Questions like these are just the beginning of a study of ethics. Should there be a military draft? Should abortion remain legal? Should grading be abolished? Should the legal drinking age be changed? All of these issues have major ethical components.

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

#### **400-level courses:**

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

*Full credit, meets 4 days/week*

*Prerequisites: Introduction to Psychology, 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 nine through twelve.

**Grade 9      English 9 (ENGL 210)**

**Grade 10     English 10 (ENGL 220)**

**Grade 11     English 11 (ENGL 310)**

**Grade 12**

- ☐ Senior Electives (ENGL 320)
- ☐ The New Community Project (ENGL 330)
- ☐ Seminar in Literary Studies: Man's Search for Meaning through Literature and Film (ENGL 410.02)
- ☐ Seminar in Literary Studies: Critical Theories of Gender, Race, Sexuality, and Ability (ENGL 410.03)

## 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 richness and complexity. Seminar style classes put students' critical engagement with the texts at the center of our praxis. Such an approach also fosters our students' ability to empathize with, and truly listen to, a diversity of voices beyond their own. Furthermore, the department's continuing partnership with the Royal Shakespeare Company offers students opportunities each year to engage in rehearsal room techniques that revitalize their understanding of the ways in which their own lived experiences are intrinsically connected to human lives from across the centuries.

Grades nine, ten, and eleven have no strictly required reading but rather fluid curricula with specific texts determined by the teacher of each course. Senior electives, including intensive one-semester and year-long courses thoughtfully designed by faculty, culminate the study of English at Horace Mann.

### **Requirements:**

Continuous enrollment in English, grades nine through twelve.

In grades nine through eleven, 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 (recent examples include James Baldwin's *The Fire Next Time* and Ta-Nehisi Coates' *Between the World and Me*). In their senior year, students may take semester electives focused on authors, literary movements and themes, or creative writing; they are also offered a variety of year-long course options. 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 diversity of literary voices from a broad range of traditions, time periods, and cultures. This approach not only expands students' awareness of literature's rich scope, but also helps students identify key connections between complex, seemingly disparate works.

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.

All seniors take either two semester-long electives or one year-long elective (Seminar in Literary Studies or The New Community Project course, which combines literary study and analysis with richly rewarding, real-world opportunities for service learning).

### **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 the students’ work and the teacher’s feedback, and to offer students space for risk-taking and experimentation with writing and revision. The rest of the year involves the close reading and analysis of literary texts—*Frankenstein*, *Annie John*, *Purple Hibiscus*, and *Julius Caesar* are but a few examples—and the study of grammar.

### **ENGL 220 - English 10**

*Full credit, meets 4 days/week*

*Prerequisites: English 9*

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

**ENGL 310 - English 11**

*Full credit, meets 4 days/week*

*Prerequisites: English 10*

In English 11, literary study intensifies with extensive units on the major genres, particularly lyric poetry. Additionally, all English 11 students complete a major research 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-analytical study of their own from that material.

**ENGL 320 - Senior Electives**

*Full credit, meets 4 days/week*

*Prerequisites: English 11*

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:

Literature of Puzzles, Games, and Mysteries

Psychological Realism: George Eliot and Virginia Woolf

How to Do Things with Books

Intro to Translation Studies

Toni Morrison

Satire

Short Masterpieces of Russian Literature

Shakespeare On Its Feet

British Romanticism: Visions and Revisions

Money in American Literature

Short Fiction: A Writing Workshop

Emily Dickinson

Reading Chang-Rae Lee

Melville's *Moby Dick*

Writing Nature, Writing Ourselves

The Serious Pleasures of Detective Fiction

The Poetics of Hip-Hop

Poets of Moment: Billy Collins, Pablo Neruda, and Naomi Shihab Nye  
Literature and Film: the Art of Redemption  
Bad Girls: Exploring Female Misbehavior  
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*

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 local non-profit organization that addresses a pressing community need and analyze them as a “living text.” We will ask: *What are our non-profit partner’s passions, motivations, and ambitions? Who are their main characters? Who is the antagonist? In what ways does setting impact the conflict? Does the story have a clear resolution? Where do we see the intersectionality of race, class, gender, religion, sexuality etc?* We will also read traditional texts (novels, short stories, poetry, films, & songs) with themes that are relevant to our partner. By having “living texts” in conversation with traditional texts, we will practice the language of empathy for the complex human concerns that shape and continue to shape the spaces around us. At the end of this process, we will propose and develop tangible projects that will aid our partner non-profit organization’s mission. In this way, this course hopes to inspire and empower young people to tangibly impact their communities through critical thinking, mindful collaboration, and meaningful action.

### **ENGL 410.02 - Seminar in Literary Studies: Man’s Search for Meaning through Literature and Film**

*Full credit, meets 5 days/week*

*Prerequisites: English 11, 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.

If “Poets are the unacknowledged legislators of the world,” as Percy Bysshe Shelley declared, then it took more than The Emancipation Proclamation to end slavery in the United States. The 21<sup>st</sup> century offers not only literature but also cinema as a powerful instrument for the promotion of ethical behavior and social change. “No art passes our conscience in the way film does, and goes directly to our feelings, deep down into the dark rooms of our souls,” declared director Ingmar Bergman. In this course we will read a selection of texts and experience films that wrestle with the aesthetics, anxiety, and moral necessity of bearing witness. We will explore works that focus on “the banality of evil,” whether oppressors are made or born, “Man’s Search for Meaning,” and the triumph of the will to do the right thing. Discussions will focus on film and literary theory related to: *Eurocentrism, Multiculturalism, Orientalism, Systemically ingrained-bias, Hollywoodization, Gender Identity, and Reflexivity*, among other topics. Philosophical and practical questions to be posed will include: Does an adaptation need to be “faithful” to its original in order to do justice to it? To what extent do literature and cinema borrow from each other? Is a text’s profundity necessarily compromised when turned into a film—or does the addition of visual, aural, and other dimensions compensate for the loss of literary nuance? Moreover we will explore how the word and the digital image have entered into a reciprocally irrevocable dialogue. In addition to analytical papers, (one to be research-based), students will be encouraged to discover what is most meaningful to them—a creative project such as a screenplay, film, or adaptation.

### **ENGL 410.03 - Seminar in Literary Studies:Critical Theories of Gender, Race, Sexuality, and Ability**

*Full credit, meets 5 days/week*

*Prerequisites: English 11, 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, Critical Race 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.

# History

## Requirements:

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

## Elective Courses Offered in 2021-22

### 300-level

- ☐ Topics in Political Philosophy (HIST 311)
- ☐ Religion in History (HIST 313)
- ☐ History of the Silk Roads (HIST 315)
- ☐ Latin American History (HIST 316)
- ☐ Global Environmental History (HIST 320)
- ☐ The Global Cold War (HIST 321)
- ☐ Vast Early American History (HIST 322)
- ☐ Contemporary U.S. History, 1945 to the present (HIST 323)
- ☐ African American History (HIST 324)
- ☐ African History (HIST 326)

### 400-level

- ☐ Comparative Race and Ethnicity (HIST 412)
- ☐ East Asian History (HIST 414)
- ☐ United States Legal History (HIST 417)
- ☐ Voices of Protest: The Progressives to the Present (HIST 419)

## **Courses Not Offered in 2021-22**

- ☐ Classical World Civilizations (HIST 310)
- ☐ History Through the Lens: Movies and American Culture (HIST 318)
- ☐ Africa and Asia, 1945 to the present (HIST 325)
- ☐ History of the Islamic World (HIST 327)
- ☐ History Research Seminar (HIST 350)

## History

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

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

### **Requirements:**

Grade 9:	Atlantic World History
Grade 10:	United States History
Grade 11 or 12:	One 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 5 days/week, while 300-level courses meet 4 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*

This course surveys the United States' past from the colonial period through the modern era. The curriculum examines the physical, demographic and bureaucratic growth of the nation alongside the development of its political, social, economic and cultural institutions and traditions. Students consider the changing roles that gender, race and class have played throughout American history. Exams evaluate conceptual skills as well as analytical abilities and mastery of historical content. Students will complete research and writing assessments during the year.

**Elective Courses:****HIST 311 - Topics in Political Philosophy**

*Full credit, meets 4 days/week*

*Prerequisites: Atlantic World History, US History*

In his *Republic*, Plato begins his discussion of the ideal state by asking a question: what is justice? In one way or another, every political system must deal with that question; at heart, political philosophy ponders the definitions of right and wrong. In other words, political philosophy is a branch of moral philosophy, one with a specific focus. Fundamentally, political philosophy is concerned with the relationship between the individual and society; more narrowly, it

is concerned with the relationship between the individual and the state, and with the design of that state. This course will deal with the basic questions of political philosophy as they have been asked throughout Western history. What is the nature of justice? What are the rights of the individual, and on what are they founded? What are the responsibilities of the individual? Is there such a thing as natural law and natural morality? What are the responsibilities of the government? What is the legitimate source of political authority? How are goods distributed in a just society? When, if ever, should the common good take precedence over individual liberty? The course will follow the historical dialogue, from the time of Plato to the present day; the aim of the course is to teach students how to think philosophically about political issues. Students will read the work of thinkers such as Plato, Aristotle, More, Hobbes, Rousseau, Locke, Freud, Marx, Thoreau, and Wollstonecraft.

### **HIST 313 - Religion in History**

*Full credit, meets 4 days/week*

*Prerequisites: Atlantic World History, US History*

Why are we here? And how do we find meaning in life under the looming shadow of mortality? Wrestling with these questions is arguably the basis of what we call religion. This course will examine religious traditions historically, with attention to their substance, origins, development, and context. Among many other themes, we will consider questions of institutionalization, underlying purposes, animating ideas and values, and historical trajectories across time and space. We will consider how and why traditions purporting to offer timelessness adapt and change with the times. Students will read articles and essays about religion in history as well as foundational religious texts, including (but not limited to) the *Hebrew Bible*, the *New Testament*, the *Tao Te Ching*, and *The Qur'an*. Through careful study of these texts we will consider both their value as sources of history and as a point of access to human experiences, 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 315 - History of the Silk Roads**

*Full credit, meets 4 days/week*

*Prerequisites: Atlantic World History, US History*

The Silk Roads, a series of overland trade routes stretching from East Asia to Southern Europe, with tributary routes reaching as far south as Eastern Africa, the Arabian Peninsula, and the Indian subcontinent, were some of the most important trade routes in human history. In this history elective, students will use the Silk Roads as a lens through which we can examine the histories of individual cultures and their connections to broader historical networks. The course is structured around three major historical eras. In the first part of the year, we'll focus on the Silk Roads in the Classical period, approximately 200 BCE - 600 CE, including not only the Roman Empire and the Han Dynasty but also other major territorial states of the time, such as the Parthians and 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

### **HIST 316 - Latin American History**

*Full credit, meets 4 days/week*

*Prerequisites: Atlantic World History, US History*

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**

*Full credit, meets 4 days/week*

*Prerequisites: Atlantic World History, US History*

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.

### **HIST 321 - The Global Cold War**

*Full credit, meets 4 days/week*

*Prerequisites: Atlantic World History, US History*

While the Cold War is often depicted as a struggle between the U.S. and USSR mainly over control of Europe, this course takes into consideration more recent scholarship which argues that the most important centers of conflict and the struggle of ideas occurred in the rest of the world, particularly in Africa, Asia, and the Middle East, just as countries were gaining their independence in the wake of World War II. We will study factors such as decolonization, race, political alliances, diplomacy, the nuclear arms race, espionage, cultural programs, activism by ordinary people, and popular culture, including film, music, and literature. Lastly, the course will weigh political theories that were tested throughout the Cold War, especially capitalism, democracy, non-alignment with the superpowers, socialism, and communism. Current events will help us connect past and present. This course will be run seminar-style. Students will have the opportunity to work collaboratively, make class presentations, conduct historical research, and participate actively in class discussion.

**HIST 322 - Vast Early American History**

*Full credit, meets 4 days/week*

*Prerequisites: Atlantic World History, US History*

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 323 - Contemporary U.S. History, 1945 to the present**

*Full credit, meets 4 days/week*

*Prerequisites: Atlantic World History, US History*

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. 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 324 African American History**

*Full credit, meets 4 days/week*

*Prerequisites: Atlantic World History, US History*

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. Throughout this study, students will 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 racial justice, particularly 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.

**HIST 326 - African History**

*Full credit, meets 4 days/week*

*Prerequisites: Atlantic World History, US History.*

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, from reducing the complexity of a continent to a single, homogeneous “country,” to using Africa as a depopulated, romantic backdrop for western music stars to create videos. “History of Africa” 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.

**400-level courses****HIST 412 - Comparative Race and Ethnicity**

*Full credit, meets 5 days/week*

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

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 414 - East Asian History**

*Full credit, meets 5 days/week*

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

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**

*Full credit, meets 5 days/week*

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

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.

**HIST 419 - Voices of Protest**

*Full credit, meets 5 days/week*

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

Throughout American history, protest movements have challenged Americans to live up to their professed ideals. Voices of Protest studies the last century through those protest movements, analyzing how citizens have attacked the status quo and formulated new alternatives. The class will consider the ways dissent is articulated and its complex influence on society – from the Suffragists through NFL’s kneeling controversy. We will analyze and engage with the history of various protest movements – as well as the responses to them – through a variety of sources, some rarely considered in history classes: portions of novels, short stories, even plays and poetry. Using literature to probe history incorporates an interdisciplinary approach to the class; however, more traditional primary and secondary sources (essays, articles, manifestos, speeches, and images) will be a key component of the readings and discussions.

We will move through the material thematically and chronologically, and address the following six units:

- (1) Capitalism's Discontents: from Industrialization to a “Fight for a \$15 Minimum Wage”
- (2) Civil Rights: from the New Negro to “Black Lives Matter”
- (3) War Protests: from World War I to 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

**Courses Not Offered in 2021-22****HIST 310 - Classical World Civilizations****[Course not offered 2021-22]***Full credit, meets 4 days/week**Prerequisites: Atlantic World History, US History, departmental approval.*

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

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

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

**HIST 318 - History Through the Lens: Movies and American Culture****[Course not offered 2021-22]***Full credit, meets 4 days/week**Prerequisites: Atlantic World History, US History*

What would a historian in 2070 say about American society in 2020 based on the year's top-selling movies, most adapted from comic books or fairy tales? What could movies from the 1950s about a corporate office worker, a New Jersey longshoreman, or a cowboy in the Old West, tell us about identity and conformity in *that* decade? This class asks and tries to answer those questions. Rather than a focus on the "art" of movies, the class explores the evolving conversation that movies have with significant historical and cultural themes from early silents to the 1960s and 1970s. After close examination of films and reading in primary and secondary works, students write regular movie responses, longer analytical papers, and do research on topics raised throughout the year.

**HIST 325 - Africa and Asia, 1945 to the present****[Course not offered 2021-22]***Full credit, meets 4 days/week**Prerequisites: Atlantic World History, US History, departmental approval.*

Imperialism, colonialism, and revolution have affected every corner of the modern world. In 9<sup>th</sup> grade you learned about how these forces affected Europe and the Americas over the last 500 years. What about the rest of the world? This course covers revolution and its aftermath in several African and Asian countries. We'll look at the history of colonialism and independence from the perspectives of colonized people. The people's movements for decolonization – largely successful after World War II – resulted in a mixture of political and economic development, radical social ideologies, endemic poverty, and sporadic conflict. We'll specifically look at the history of these states from cultural (e.g., ethnic, racial, and religious diversity), social (e.g., class structure, education, and economic development), and political (e.g., communism, dictatorship, democracy, and war) perspectives. And our story will come right up to the present day. Students will engage with theoretical approaches to imperialism and colonialism, the psychology of colonialism, and patterns of decolonization and postcolonial development, all while broadening global perspectives and challenging engrained stereotypes. Beyond the history, our goal is to increase cultural competency and to develop and appreciation for global citizenship.

**HIST 327 - History of the Islamic World****[Course not offered 2021-22]***Full credit, meets 4 days/week**Prerequisites: Atlantic World History, US History, departmental approval.*

For nearly the entire life of a Horace Mann student, the United States has been at war in the Islamic world. And yet, outside of violent images of revolution and fundamentalists that we see in the media, many of us know very little about the people and culture of a region that we are so intertwined with. This course seeks to explore the history of the Middle East and Islamic World so that we may better understand the complexities of one of the world's most important civilizations. The culture and religion of Islam have acted as a unifying force across large sections of Africa, Asia, and Europe, creating essentially a single world-system that included West Africa, the Middle East, and India, as well as parts of Europe and China. The shared religion of Islam, which often carried with it a shared priority on literacy and education, created the basis for a level of

cultural exchange and technological development unprecedented in world history. This class will examine the Islamic world system in three distinct periods in its history: the rise of Islam and the development of Islamic Empires; the eighteenth and nineteenth centuries, when empires such as the Ottomans faced external political and intellectual challenges from a rising Europe as well as from internal reform movements; and finally the rise of nation-states after World War I. The spread of Islam brought new ideas in art and architecture, revived and expanded on Greek philosophy, and introduced an unprecedented level of religious tolerance to the medieval world. The latter two sections will also lead us to examine topics that students have been exposed to before—the Enlightenment, absolutism and constitutionalism, gender relations, colonialism, nationalism, and socialism – but we will study them in a new context.

### **HIST 350 - History Research Seminar**

**[Course not offered 2021-22]**

*Full credit, meets 4 days/week*

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

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

# Independent Study Opportunities

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

*Full credit, meets every other day*

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

The Independent Interdisciplinary Research Seminar allows motivated, responsible students to study topics not included in the Horace Mann curriculum or to continue research on a topic covered in a previous course. Each student in the IIRS designs a research project and pursues it through independent study, guided by a faculty mentor. Students meet with their mentors at least once per week and with the seminar director once every other week. IIRS members also convene two to three times per week for an interdisciplinary seminar. All participants keep journals in which they record their research. Each semester they must produce projects as evidence of their work, usually a research paper, a literary or artistic work, a scientific experiment, or a performance. The projects' content determines the form of the final result.

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

# Interdisciplinary Studies

## **INTD 110 - Seminar on Identity (SOI)**

*11<sup>th</sup> grade requirement, meets 1 day/week*

This course is a required, weekly seminar for 11<sup>th</sup> graders which runs for 16 weeks. It provides 11<sup>th</sup> graders with an opportunity to explore identity development broadly and consider the ways in which their own identities can provide them with the agency to effect positive change in their lives and in their communities. The course examines the relationship between identity and power and how institutionalized systems may advantage some and create inequities for others.

The course aims to develop greater self-awareness, deepen critical analysis of societal constructions, ask challenging questions about identity and power, and strengthen the recognition of the students' own and others' valid lived experiences. Students delve into identity and power as seen through the lens of core cultural identifiers such as gender, religion, race, socio-economic status, etc. Students also have the opportunity to examine the intersections of different social identifiers and power through readings, film screenings, activities, and open dialogue.

## **INTD 310 - Identity, Gender and Sexuality**

**[Course not offered 2021-22]**

*Half credit, meets every other day*

*Grades 11-12*

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

# Mathematics

## **Requirements:**

One of the following Geometry courses:

- ☐ Geometry and Problem Solving (MATH 210)
- ☐ Geometry (MATH 211)
- ☐ Geometry Honors (MATH 212H)

One of the following Algebra II & Trigonometry courses:

- ☐ Algebra II & Trigonometry (MATH 221)
- ☐ Algebra II & Trigonometry Honors (MATH 222H)

## **Elective Courses Offered in 2021-22**

300-level

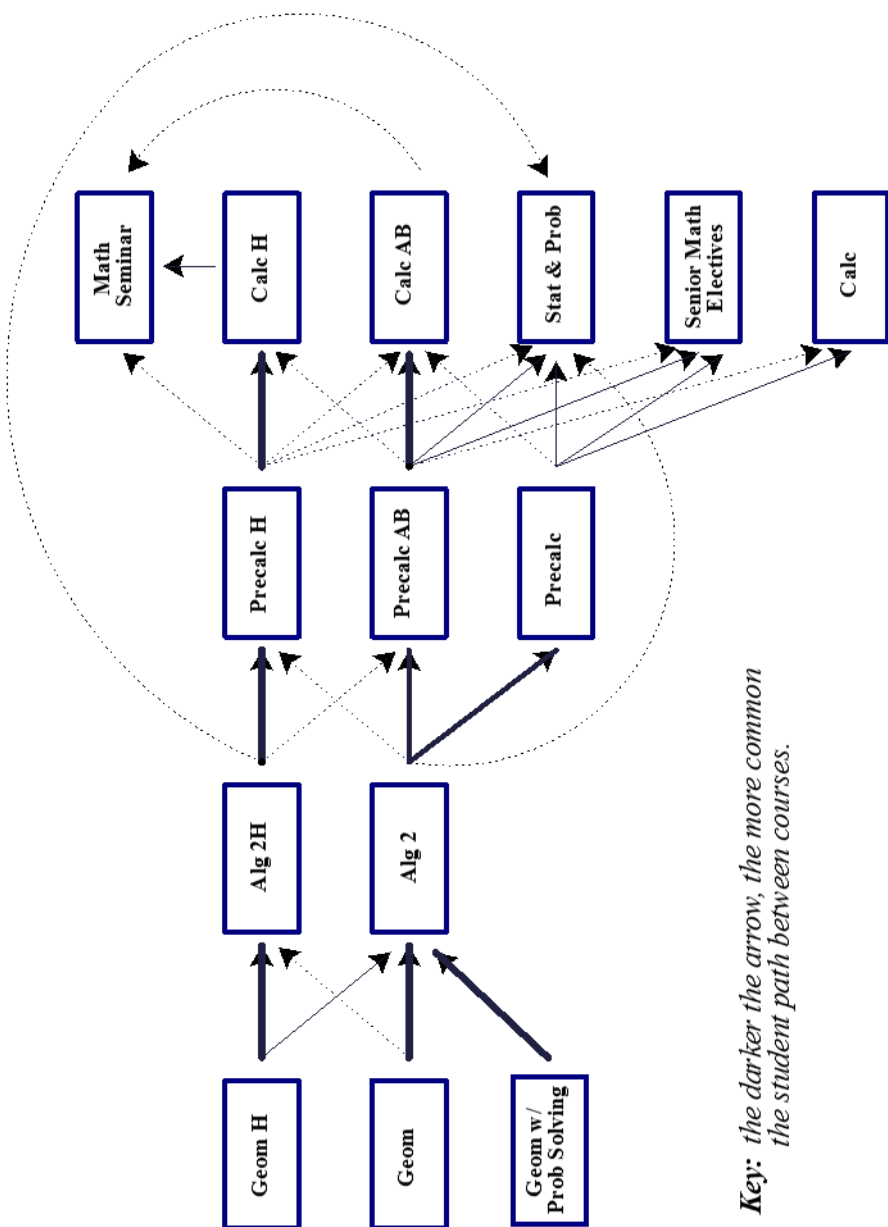
- ☐ Precalculus (MATH 310)
- ☐ Precalculus-Enriched (MATH 311)
- ☐ Precalculus-Enriched Honors (MATH 312H)
- ☐ Calculus (MATH 350)
- ☐ Senior Math Electives (MATH 360)

400-level

- ☐ Calculus-Enriched (MATH 411)
- ☐ Calculus-Enriched Honors (MATH 412H)
- ☐ Statistics and Probability (MATH 430)
- ☐ Math Seminar (MATH 440S)

## **Courses Not Offered in 2021-22**

- ☐ 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 and Trigonometry*

Many of the elective courses and honors courses have special prerequisites. For specific details, please refer to the information that follows each course description under "approval requirements."

### **Required Courses (Grades 9 and 10)**

#### **MATH 210 - Geometry and Problem Solving**

*Full credit, meets 5 days/week*

*Prerequisites: Algebra I*

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

#### **MATH 211 - Geometry**

*Full credit, meets 4 days/week*

*Prerequisites: Algebra I*

The course is designed to convey an appreciation of geometry as a deductive system. Starting with undefined terms, postulates, and definitions, the students follow the progressive development of theorems and their proofs to create a mathematical structure with rich aesthetic and practical value. In building this axiomatic structure, they improve their ability to recognize and organize the various relationships among points, lines, triangles, polygons, and

circles in the plane. Throughout the year, students will engage in a series of guided explorations using the dynamic software program, *Geometer's Sketchpad*.

**MATH 212H - Geometry Honors**

*Full credit, meets 4 days/week*

*Prerequisites: Honors Algebra I or Algebra I, departmental approval (see below).*

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

Approval requirements: Algebra I students interested in Geometry Honors will be considered based on a combination of factors including: teacher recommendation, grades, and performance on a placement test.

**MATH 221 - Algebra II & Trigonometry**

*Full credit, meets 4 days/week*

*Prerequisites: Geometry or Geometry and Problem Solving*

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

**MATH 222H - Algebra II & Trigonometry Honors**

*Full credit, meets 4 days/week*

*Prerequisites: Geometry Honors or Geometry, Departmental approval (see below).*

This Honors course covers the topics in Algebra II & Trigonometry in greater depth and serves as a rigorous introduction to higher mathematics. The course begins with abstract set theory and branches off to cover areas of mathematical modeling with functions, geometric and analytic trigonometry, and advanced

analytic geometry. This is a demanding course, requiring a high level of abstraction and mathematical maturity. Students will be expected to stretch themselves intellectually and to grapple with exciting, difficult material throughout the year. Time permitting, we may also cover abstract topics such as cardinality, group and field theory, basic number theory, and non-Euclidean metrics.

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

### **Elective Courses (Grades 11 and 12)**

#### Precalculus Options

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

#### **MATH 310 - Precalculus**

*Full credit, meets 4 days/week*

*Prerequisites: Algebra II & Trigonometry*

In this course, students will use the skills they've developed in previous math courses to explore strategies for solving challenging, exciting problems. Through real-world examples and modeling, students will learn how math appears in their everyday lives. The course includes a review of trigonometric functions along with a deeper look at their graphs, inverses, and applications. Other topics include sequences, polynomials, combinatorics, probability, exponential growth and decay, and optimization.

#### **MATH 311 – Precalculus-Enriched**

*Full credit, meets 4 days/week*

*Prerequisites: Algebra II & Trigonometry, Departmental approval (see below).*

In this course students will cover a variety of topics within mathematics. Each topic is rich with interesting problems that inspire curiosity and require creative problem-solving techniques. Specifically, students will study elementary functions, including trigonometric, rational, polynomial, exponential, and logarithmic,

both theoretically and through applications. This course also covers sequences and series, combinatorics, and probability.

Approval requirements: A minimum grade of an exact B+ or higher when averaging both semester grades in Algebra II & Trigonometry (211). An exact B+ is a 7 on the 10 point scale.

### **MATH 312H – Precalculus-Enriched Honors**

*Full credit, meets 4 days/week*

*Prerequisites: Algebra II & Trigonometry Honors or Algebra II & Trigonometry, Departmental approval (see below).*

This course involves a highly theoretical and rigorous approach to precalculus. Topics include vector analysis, modeling with parametric equations, combinatorics and probability, sequences and series, recursion, polar coordinates. Graphing calculators and computer applications are used for exploration.

Approval requirements: A successful year in Algebra II & Trigonometry Honors, which for most students is indicated by a year-end grade of a B or higher. Students earning a year-end grade lower than a B in Algebra II & Trigonometry Honors must have departmental approval. In unique circumstances, students who demonstrate exceptionally high achievement in Algebra II & Trigonometry (221) may be considered for approval for this course.

### **MATH 350 - Calculus**

*Full credit, meets 4 days/week*

*Prerequisites: Precalculus or Precalculus-Enriched, departmental approval (see below).*

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

Approval requirements: You must earn a C or higher in Precalculus.

### **MATH 360 - Senior Math Electives**

*Full credit, meets 4 days/week*

*Prerequisites: Any precalculus course.*

Senior Math Electives is a full-year, full credit course designed to give students the opportunity to study engaging mathematical fields that are outside of the traditional high school syllabus. Project-based “learning by doing” will be an integral part of the experience. Students will be evaluated through their work on problem sets and

projects. The course is divided into two distinct semesters, sometimes taught by two different teachers. Topics may change year-to-year, but past offerings are:

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

*An Introduction to Discrete Mathematics:* This semester course explores topics in discrete mathematics, computational linear algebra, and provides an introduction to approximation theory.

### **MATH 411 – Calculus-Enriched**

*Full credit, meets 5 days/week*

*Prerequisites: Precalculus or Precalculus-Enriched, 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-Enriched. In addition, in the spring, very high performing students in Precalculus who would like to take Calculus-Enriched and have talked to their teacher about this jump will be asked to sit for a diagnostic test to help gauge their readiness. Precalculus-Enriched students that do not meet the grade criteria will also be eligible for the diagnostic test.

### **MATH 412H – Calculus-Enriched Honors**

*Full credit, meets 5 days/week*

*Prerequisites: Precalculus-Enriched Honors or Precalculus-Enriched, departmental approval (see below).*

Calculus-Enriched Honors is the culmination of the honors sequence in mathematics. In this course we 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-Enriched 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-Enriched Honors must have departmental approval. In unique circumstances, students who demonstrate exceptionally

high achievement in Precalculus-Enriched 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 or any precalculus course, departmental approval (see below).*

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

Approval requirements: A minimum grade of an exact A- or higher when averaging both semester grades in Algebra II & Trigonometry. For Algebra II & Trigonometry Honors a minimum of an exact B+ is required. From Precalculus the requirement is a B+, Precalculus-Enriched is a B, and finally Precalculus-Enriched Honors is a B-.

### **MATH 440S - Math Seminar**

*Full credit, meets 4 days/week*

*Prerequisites: Precalculus-Enriched Honors or Precalculus-Enriched, departmental approval (see below).*

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

Approval requirements: A demonstrated passion for mathematics, a minimum grade of A- in Precalculus-Enriched Honors and departmental approval required. In certain exceptional circumstances, a student who has completed Precalculus-Enriched may be considered for approval for this course. Students may take Math Seminar and a calculus course concurrently.

## **Courses Not Offered in 2021-22**

### **MATH 361 - Discrete Math**

**[Course not offered 2021-22]**

*Full credit, meets 4 days/week*

*Prerequisites: Any Precalculus or Algebra II & Trigonometry course, departmental approval (see below).*

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

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

### **MATH 362 - Introduction to Statistics and Probability**

**[Course not offered 2021-22]**

*Full credit, meets 4 days/week*

*Prerequisites: Algebra II & Trigonometry (221)*

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

# Physical Education & Health

## Requirements:

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

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

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

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

**Certification in CPR/AED for the Professional Rescuers & Health Care Providers with First Aid is a requirement for graduation.**

## Physical Education & Health

The Physical Education Program is designed to instruct students in sports and fitness activities, while ensuring all students are prepared in professional life-saving skills through our CPR/AED for the Professional Rescuers & Health Care Providers 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:**

Physical Education in grades nine through twelve, unless replaced by team membership or an approved Independent Out of School/Athletic contract. Certification in CPR/AED for the Professional Rescuers & Health Care Providers with First Aid. Health Education in grades 9 or 10 and 11 or 12.

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

### **PHED 210 - Concepts of Physical Fitness/Team and Life Sport**

*One-half credit, Meets every other day*

*Prerequisites: None*

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

In the *weight-training* component, students will be taught the proper use of equipment as well as the effects of its use on the body. The *cardiovascular fitness* component will begin with the identification of each student's target heart rate zone and allow students to achieve it through various endurance and muscle-toning workouts.

Students will be “tested out” periodically in order to assess progress, general knowledge of the human anatomy and the equipment used to work specific muscle groups.

In the *team and life sport* component, students will participate in both individual and team sport activities. Students will learn the rules of play of each sport or activity and the fundamental skills necessary for the enjoyment of each. Seasonal offerings include: 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, standup paddle-boarding, recreational aquatic games, snorkeling and Boga fit and Boga yoga.

### **PHED 211 - Varsity PE**

*One-half credit, Meets every other day*

*Grades 10-12*

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

**Students not in-season will be expected to participate in a regularly scheduled physical education class.**

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

*One-half credit, Meets every other day*

*Prerequisites: None*

*Grades 9-12*

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

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

Dance Workshop emphasizes the development of a strong technical base in Ballet, Pilates, Yoga, Modern Dance, Jazz, Tap, Hip-Hop and an awareness of other world dance influences. Training includes

warm-up, improvisation, alignment, stretching exercises, and traveling combinations. Rhythmic awareness and the relationship of music to dance is stressed throughout

**PHED 313 - Dance Performance for PE credit**

*One-half credit, Meets every other day*

*Prerequisites: Approval of the instructor*

*Grades 10-12*

*May be taken for Performing Arts credit OR Physical Education credit – meets 5 days out of the 10-day cycle for the entire year. Participation in after-school sports does not exempt students from Dance Performance. This course builds upon the foundations established in Dance Workshop and finally places the emphasis on performance. The course culminates in multiple presentations throughout the year.*

**Health 1**

*One-half credit, Meets every other day for one quarter*

*Prerequisites: None*

*Grades 9-10*

**Health 2**

*One-half credit, Meets every other day for one quarter*

*Prerequisites: None*

*Grades 11-12*

The Health curriculum provides an interactive forum with students and teachers to understand health issues. As students acquire knowledge and obtain skills, they gain the self-confidence and sense of responsibility necessary for making decisions that affect their quality of life. Health 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.

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

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

**Graduation Requirement**

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

**Out-of-School/Independent Athletic Contracts**

*Departmental approval required*

*Grades 10-12*

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

Contract forms must be submitted on or before the first day of class each quarter. **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) or Physics Through Inquiry (SCI 230),**

**Physics (SCI 311) or Physics Honors (SCI 312H)**

## **Elective Courses Offered in 2021-22:**

### **300-level**

- ☐ Physics (SCI 311)
- ☐ Physics Honors (SCI 312H)
- ☐ Biotechnology (SCI 320)
- ☐ Human Anatomy and Physiology (SCI 321)
- ☐ Experiments in Physics and Chemistry (SCI 322)
- ☐ Science Research 1 (SCI 350)

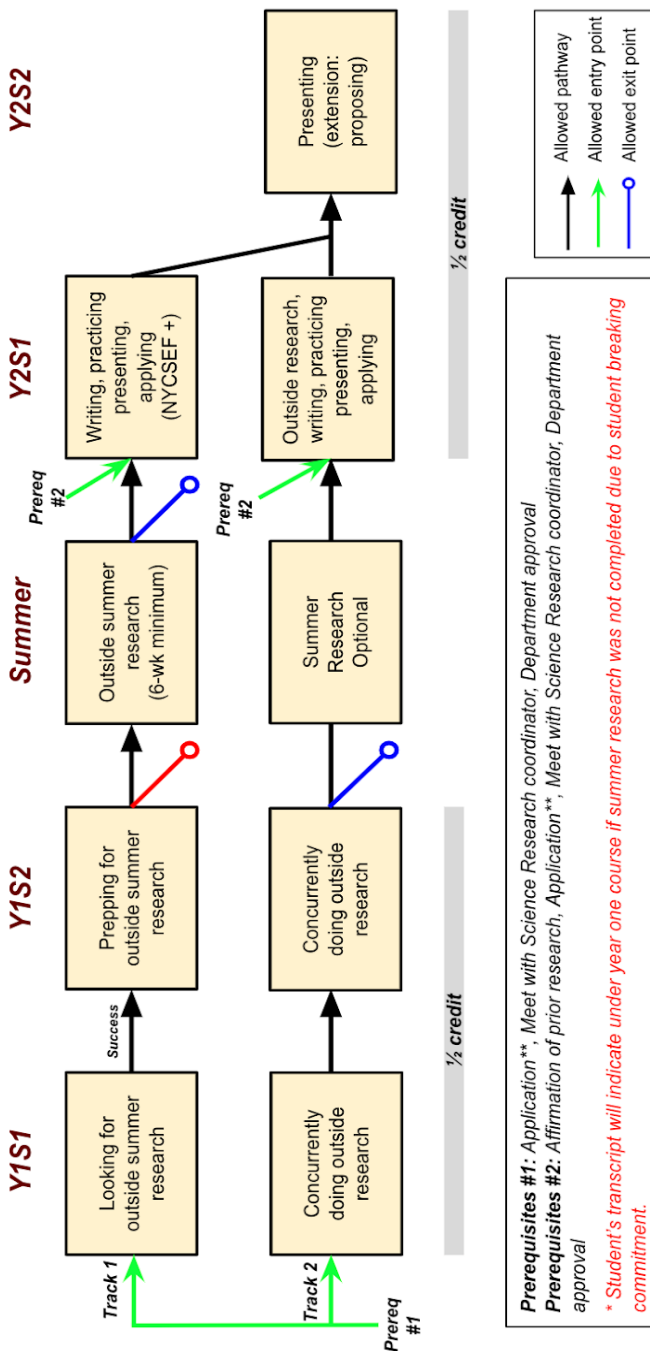
### **400-level**

- ☐ Molecular Genetics, Cells and Physiology (SCI 410.01)
- ☐ Molecular Genetics, Evolution and Ecology (SCI 410.02)
- ☐ 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 (SCI 450S)

## **Courses Not Offered 2021-22**

- ☐ Topics in Biology (SCI 301)
- ☐ Selected Topics in Physics (SCI 310)

# HM Science Research Course Overview



**Prerequisites #1:** Application\*\*, Meet with Science Research coordinator, Department approval  
**Prerequisites #2:** Affirmation of prior research, Application\*\*, Meet with Science Research coordinator, Department approval  
*\* Student's transcript will indicate under year one course if summer research was not completed due to student breaking commitment.*  
*\*\* Applications in all cases must be submitted during program planning the spring before course enrollment.*

## Science

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

### **Requirements:**

Biology

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

### **A note on 400-level Science classes:**

Students are rarely approved to take two 400 level science classes concurrently, especially when also registering for additional 400 level classes. Students who find themselves in this situation will require special permission 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, usually taken in Grade 9.*

*Prerequisites: None*

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

data-based project and present their work to the class. This final project is a culmination of the skills developed throughout the course. It will highlight student understanding of experimental design and analysis of data to draw conclusions.

### **SCI 220 - Chemistry**

*Full credit, meets 4 days/week, including one double lab period, usually taken in Grade 10.*

*Prerequisites: None*

*Chemistry concerns the composition and properties of matter. The topics discussed in the classroom are explored through demonstrations and reinforced through weekly laboratories. Topics include atomic and electronic structure, bonding, reactions, stoichiometry, gas laws, states of matter, solutions, reaction kinetics, thermodynamics, equilibrium, acid/base chemistry, and electrochemistry. In addition to traditional assessments, students will also complete one research-based project per semester. Both projects will include student collaboration, inquiry, and presentation.*

### **SCI 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*

*Physics Through Inquiry is a laboratory-based introductory class where students will work collaboratively with their peers. Through experimentation, students will 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 will focus on our society's use of energy and technology. The course will emphasize the development of analytical reasoning skills which will help 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 SCI 404 (Physics with Calculus) and SCI 425 (Chemistry Concepts and Applications). SCI 404 and SCI 425 will still require Physics or Physics Honors as a prerequisite.*

### **SCI 311 - Physics**

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

*Prerequisites: Biology, Chemistry (recommended), usually taken in Grade 11.*

*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.

Students who have not completed Algebra II and Trigonometry require permission from the department; please consult with your advisor, your current science teacher, and/or the Department Chair about whether this is a suitable program choice. Students who elect to enroll in Physics before, or in place of, Chemistry must have completed Algebra II and Trigonometry.

### **SCI 312H - Physics Honors**

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

*Prerequisites: Biology, Chemistry (recommended), usually taken in Grade 11, departmental approval (see below).*

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

Students who have not completed Algebra II and Trigonometry require permission from the department - please consult with your advisor, your current science teacher, and/or the Department Chair about whether this is a suitable program choice. Students who elect to enroll in Physics before, or in place of, Chemistry must have completed Algebra II and Trigonometry.

Generally, students need to have earned grades of A- or better in all science and mathematics courses to be considered. All interested students must also complete a placement exercise in May, which is designed to assess the readiness of students for this course. Interested students are encouraged to talk with their current science teacher and/or the Department Chair prior to requesting Physics Honors. Given the significant demands of Physics Honors, the department does not generally give permission for concurrent enrollment in Physics Honors and a 400-level Science; students who are interested in doing so must discuss this with their current science teacher and the Department Chair before submitting their Course Request Sheet. Physics Honors may not be taken by students who have completed Physics.

**Elective Courses:****SCI 320 - Biotechnology**

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

*Prerequisites: Biology, Chemistry*

This is an upper-level course in Biology that introduces students to the cutting-edge techniques used in contemporary molecular biology research. As well as emphasizing hands-on laboratory experience, students are challenged to consider the bioethical issues associated with advancing technology. This course builds on foundational Biology and Chemistry concepts learned in the 9th and 10th grades to further understand the molecular biology behind topics like infectious disease and immunology, antibiotic resistance, genetically modified organisms, advances in cancer biology, and human evolution. Students will learn important techniques in molecular biology including gel electrophoresis, restriction enzyme digests, primer design, DNA amplification by polymerase chain reaction (PCR), nucleic acid extraction and purification, genetic engineering, bacterial/yeast transformations, DNA sequencing, and microarray analysis. 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, Chemistry*

This upper-level course in biology examines the structures and functions of cells, tissues, organs, and organ systems found in the human body. The class will go through the complexity of many features found in body systems, such as the microscopic anatomy of bones in the skeletal system, the sliding filament model of the muscular system, action potential propagation in the nervous system, and the cardiac cycle of the cardiovascular system. The class will emphasize the relationship between the physiological aspects of the organ systems to one another. Additionally, students will complete research projects and presentations, where they will be able to focus on a specific topic, disorder, disease, treatment, or surgery related to the body systems discussed in class. Possible research topics include common skin disorders, knee replacement surgery, muscular dystrophy, and the impact of specific drugs on neurons. Laboratory investigations will include performing a variety of dissections, measuring bodily activity, and modeling physiological processes.

**SCI 322 - Experiments in Physics and Chemistry**

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

*Prerequisites: Biology, Chemistry*

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

**SCI 410.01 - Molecular Genetics, Cells and Physiology**

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

*Prerequisites: B+ or better in Biology, Chemistry, and Physics Through Inquiry or Physics or Physics Honors, departmental approval required. A grade of B+ or better in Biology is required. Particularly outstanding and interested students may be permitted to take Physics concurrently.*

Molecular Genetics and Cell Physiology is an advanced biology course. During the first half of the course, we will learn about modern molecular genetics, from the classic experimental events that identified the proteins involved in DNA replication and repair, to cutting-edge assays and gene sequencing. Then, our focus will shift to the cell, the foundational building block for all living things, and we will learn about cellular structure and processes. This course will address cell structure, energy metabolism, cellular signaling, physiology of various types of cells including neurons, as well as the endocrine and immune system cellular responses. The course will draw upon a solid foundation of basic chemical knowledge and integrate it into the understanding of how cells function within multicellular organisms. The course will include topics that will span both prokaryotic and eukaryotic organisms, but will focus on multicellular eukaryotic organisms. *Note: Students who take SCI 410.01 will not be permitted to take SCI 410.02 due to overlap of course content.*

**SCI 410.02 - Molecular Genetics, Evolution and Ecology**

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

*Prerequisites: B+ or better in Biology, Chemistry, and Physics Through Inquiry or Physics or Physics Honors, departmental approval required. A*

grade of B+ or better in Biology is required. Particularly outstanding and interested students may be permitted to take Physics concurrently. Molecular Genetics, Evolution and Ecology is an advanced biology course. During the first half of the course, we will learn about modern molecular genetics, from the classic experimental events that identified the proteins involved in DNA replication and repair, to cutting-edge assays and gene sequencing. The second half of the course focuses on the processes and evidence of evolution as a means to study biological diversity and ecosystem structure. We will build a comprehensive understanding of the fundamentals of life history, behavior, population dynamics, ecosystem processes and how evolution shapes ecological relationships. We will make connections between species diversity and ecosystem function in order to understand the importance of conserving biodiversity. Conceptual learning will be supported by hands-on inquiry-driven investigations that emphasize experimental design, data analysis and scientific communication. *Note: 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: B+ or better in Biology, Chemistry, and Physics Through Inquiry or Physics or Physics Honors, departmental approval required.*

*Particularly outstanding and interested students may be permitted to take Physics concurrently. A grade of B+ or better in Chemistry is required.*

This rigorous, advanced elective course focuses on chemistry that bridges the fundamentals of carbon-based chemistry and biological applications. Students will have the opportunity to engage with advanced organic and biochemistry material in a collaborative environment and be challenged to think independently and creatively. The organic focused semester will build a foundation in Lewis acid-base theory, organic nomenclature, stereochemistry, and reaction mechanisms. In the biochemistry semester, students will focus on how the structure and function of macromolecules in biological systems interact. Students will explore the biochemical requirements and mechanisms of biological pathways. Many of the laboratory experiments are multi-week projects and require students to think critically while introducing essential organic chemistry and biochemistry laboratory skills.

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

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

*Prerequisites: B+ or better in Biology, Chemistry, and Physics Through Inquiry or Physics or Physics Honors, departmental approval required (see below).*

This course is comparable to an introductory college course in general chemistry. The course will emphasize the conceptual and quantitative understanding of how compounds and molecules interact and the design and execution of sophisticated inquiry-based chemistry experiments to support that understanding. This course will also focus on making connections to real-world applications of chemistry. Topics may include Lewis acid-base chemistry, buffer systems, atmospheric and ocean chemistry, and batteries. Semester I will focus on chemical structure and bonding, and semester II will focus on chemical equilibrium, free energy and reaction kinetics. Strong problem-solving skills are required to master this course.

Approval requirements: In addition to approval by the department, students must be enrolled in or have completed Precalculus. Particularly outstanding and interested students may be permitted to take Physics concurrently.

**SCI 430 - Physics with Calculus**

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

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

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 discussed include Newton's laws, conservation of energy, momentum and angular momentum, gravitation, rotational dynamics, oscillations, electric and magnetic fields (including Gauss's law and Ampere's law), static and moving charges, circuits, and electromagnetism (including Faraday's law). Ideas from introductory physics are amplified and more broadly applied, and new ideas are introduced. Laboratory investigations involve a variety of experimental techniques and methods of data analysis. Analysis of experimental error is emphasized and formal laboratory reports are required periodically. Students have substantial freedom in designing their own experiments, and many experiments are carried out over several weeks. A final project may be assigned.

Approval requirements: In addition to approval by the department, students must be enrolled in or have completed Calculus AB, Calculus (MATH 401), Calculus BC Honors, or Calculus Honors (MATH 422). Math grades are also considered.

**SCI 440 - Environmental Science**

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

*Prerequisites: B+ or better in Biology, Chemistry, and Physics Through Inquiry or Physics or Physics Honors, departmental approval required. Particularly outstanding and interested students may be permitted to take Physics concurrently.*

As a species, we have had a profound impact on our planet, impacting which species are alive today, the flow of water, the temperature and even the geology. As humans, we have created many problems, yet we must also create solutions. In this course, students will use scientific principles to understand how the systems of our planet function, how humans impact them and how to develop creative solutions. In this laboratory-based class, students will practice the process of science, learning how scientists have figured out what we know. Students will develop their skills in data analysis, and draw conclusions from the data they collect. Interdisciplinary in nature, this course incorporates elements of biology, chemistry, physics, geology and anthropology, building on students' past science experiences with this real-world context.

Approval requirements: Students must have a B+ average across all science courses.

**Science Research at HM**

The goal of the Science Research Program at Horace Mann School is to prepare and support students through a science research experience. This support begins by providing students with the understanding of scientific method and skills necessary to perform research and continues through the research experience. Finally, students are supported as they present their research at local science competitions and symposiums and write a full research paper. A map of the different tracks is included in the Program of Studies. Students may choose track 1 (T1) by searching for an outside lab experience for the summer between Science Research I and Science Research II and will be coached through that process. Students who have already secured a steady research experience outside of Horace Mann may choose track 2 (T2), and will work consistently outside of school on their research project while also working with the Science Research curriculum. Students of all tracks will be mixed within the same section, and will learn the same curriculum, with appropriate differentiation to help each student meet their science research goals. The course is scheduled every other day, with class meetings occurring once per week. Other scheduled periods will be used for one-on-one or small group meetings and experimentation.

Approval requirements: Selection is at the discretion of the department. Before submitting their Course Request sheet on May 4, 2021, interested students must meet with the Science Research Coordinator and submit an application to the program.

**SCI 350 - Science Research 1: Research Theory and Skills**

*One-half credit, meets every other day*

*Prerequisites: Selection is at the discretion of the department. Before submitting their Course Request sheet on May 4, 2021, interested students must meet with the Science Research Coordinator and submit an application to the program.*

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

**SCI 450S - Science Research 2: Analysis and Presentation of Research**

*One-half credit, meets every other day*

*Prerequisites: Selection is at the discretion of the department. Before submitting their Course Request sheet on May 4, 2021, interested students must meet with the Science Research Coordinator and submit an application to the program.*

Students enrolled in year two would focus on written and oral presentations of their research. They will enter various competitions and symposiums, with the course requiring entry only into NYCSEF (New York City Science and Engineering Fair). In addition, discussions about the scientific method and practice of research, data analysis, and research ethics will continue. Students will informally mentor year one students. For T1 students, experimentation must have taken place the summer prior to this course. For T2 students, experimentation will occur through at least the fall of the course.

**Courses Not Offered in 2021-22****SCI 301 - Advanced Topics in Biology****[Course not offered 2021-2022]***Full credit, meets 4 days/week, including one double lab period**Prerequisites: Biology, Chemistry*

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

**SCI 310 - Selected Topics in Physics****[Course not offered 2021-2022]***Full credit, meets 4 days/week**Prerequisites: Biology, Chemistry*

The class is intended to work as a seminar, emphasizing cooperative and collaborative learning as a means of carrying out research. Thus, there are no tests or quizzes except as diagnostic exercises. Assessment is based on contributions to class discussion as well as presentations and projects, individually and in small groups throughout the year. The informal tone of the course therefore demands a genuine interest in and dedication to both the material and the sincere learning dynamic. This course does not fulfill the Physics prerequisite for 400-level Science courses.

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

# World Languages

**Requirements:**

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

**Full-credit courses:**

- ☐ Chinese 1 (LNGC 210)
- ☐ Chinese 2 (LNGC 220)
- ☐ Chinese 3 (LNGC 230)
- ☐ Chinese 4 (LNGC 310)
- ☐ Chinese 5 (LNGC 320)
  
- ☐ French 1 (LNGF 210)
- ☐ French 2 (LNGF 220)
- ☐ French 2 Honors (LNGF 221H)
- ☐ French 3 (LNGF 230)
- ☐ French 3 Honors (LNGF 231H)
- ☐ French 4 (LNGF 310)
- ☐ French 5 (LNGF 320)
- ☐ Studies in French: Marges et Centres du Monde Francophone (LNGF 410)
- ☐ French Seminar (LNGF 420S)
  
- ☐ Japanese 1 (LNGJ 210)
- ☐ Japanese 2 (LNGJ 220)
- ☐ Japanese 3 (LNGJ 230)
- ☐ Japanese 3 Honors (LNGJ 231H)
- ☐ Japanese 4 (LNGJ 310)
- ☐ Japanese 5 (LNGJ 320)
- ☐ Studies in Japanese: Traditional to Contemporary Culture, Language, and Society (LNGJ 410)
- ☐ Japanese Seminar (LNGJ 420S)

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

***Half-credit courses:***

- ☐ Ancient Greek A (LNGG 201)
- ☐ Ancient Greek B (LNGG 202)
- ☐ Ancient Greek C (LNGG 203)
  
- ☐ Latin A (LNGL 201)
- ☐ Latin B (LNGL 202)
- ☐ Latin C (LNGL 203)
- ☐ Latin D (LNGL 301)
- ☐ Latin E (LNGL 302)

## World Languages

### **Graduation Requirements:**

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

### **Approval Requirements for Honors Courses:**

Honors courses are offered to students whose language proficiency is at the highest end of the range for their level, and demonstrate consistent interest in the study of the language. This designation is available at level 2 in French and Spanish and at level 3 in other languages. To remain in the honors track, students must maintain a minimum grade of B+. Students who wish to move from a regular track to an honors level must achieve a grade of at least A- in the regular track course and have departmental approval. The average of the two semester grades and progression in performance throughout the entire year will be taken into account. An additional assessment may be required to determine eligibility.

### **Special Case Placement**

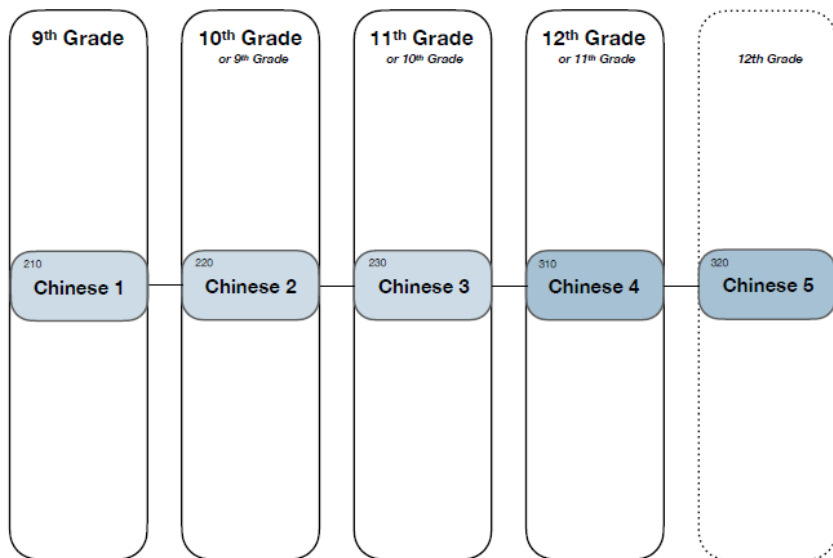
For students who wish to study a language in which they have previous experience (e.g. spoken at home, studied at another school), the department requires a placement exam. Students must contact the Department Chair prior to registration to schedule an evaluation.

### **Note on Arts Requirement**

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

# Chinese

## Chinese Sequence



### 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 or placement exam.*

The second-level Mandarin Chinese language course will build on the basic skills acquired in Chinese 1. There is an emphasis on colloquial usage, self-expression (both in speech and in writing), and Chinese culture, such as Chinese Lunar New Year and the Mid-Autumn Festival. Both simplified characters and traditional characters are used.

**LNGC 230 - Chinese 3**

*Full credit, meets 4 days/week*

*Prerequisites: Chinese 2 or placement exam.*

The third-level Mandarin Chinese language course is a continuation of Chinese 2. The course continues to build upon the four skills of listening, reading, speaking and writing with increased focus on short compositions. Both simplified characters and traditional characters are used, and cultural topics are emphasized.

**LNGC 310 - Chinese 4**

*Full credit, meets 4 days/week*

*Prerequisites: Chinese 3 or placement exam.*

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

**LNGC 320 - Chinese 5**

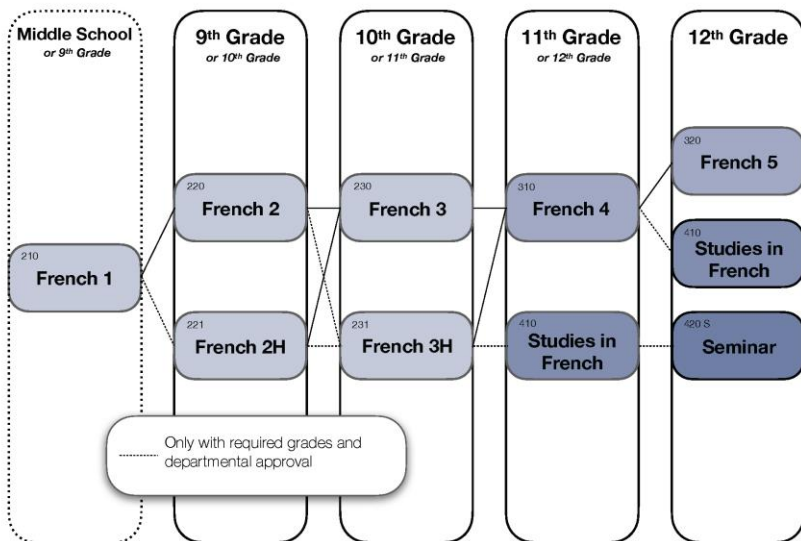
*Full credit, meets 4 days/week*

*Prerequisites: Chinese 4 or placement exam.*

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

# French

## 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 French 2 the following academic year.

**LNGF 220 - French 2**

*Full credit, meets 4 days/week*

*Prerequisites: French 1 or placement exam for new students.*

Conducted primarily in French, this course is a continuation of the work begun in Middle Division or French 1. It leads students to communicate directly in a meaningful way to engage critically with authentic listening and reading materials. The course focuses on solidifying previously covered language structures and expanding students' proficiency in French as a vehicle for self-expression and for navigating and accomplishing tasks related to everyday life. To stimulate students' expression and sharpen their ability to communicate, we use a variety of contemporary French sources in a variety of media. Students compare their own experiences and culture to contemporary francophone cultures in North America, the Caribbean, Europe, and Africa.

**LNGF 221H - French 2 Honors**

*Full credit, meets 4 days/week*

*Prerequisites: French 1 or HM Middle Division Accelerated French 3, and departmental approval (see below).*

Also conducted primarily in French, this course parallels French 2. The course distinguishes itself by devoting significantly less time to solidifying previously covered language structures and instead focusing on expanding students' proficiency in French as a vehicle for self-expression and for navigating and accomplishing tasks related to everyday life. Sources are selected to challenge students to expand their level of proficiency.

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

**LNGF 230 - French 3**

*Full credit, meets 4 days/week*

*Prerequisites: French 2*

This course continues the work of French 2 and is conducted entirely in French. While placing the same emphasis on meaningful communication and authentic materials as French 2, French 3 focuses on solidifying previously covered language structures and expanding students' proficiency in French. Students move from accomplishing tasks related to everyday life to those concerning their community. To stimulate students' expression and sharpen their ability to communicate, we use a wide range of contemporary French sources in a variety of media. Students compare their own experiences and culture to contemporary francophone cultures in North America, the Caribbean, Europe, and Africa.

**LNGF 231H - French 3 Honors**

*Full credit, meets 4 days/week*

*Prerequisites: French 2 Honors or French 2, and departmental approval (see below).*

Also conducted entirely in French, this course parallels French 3, but devotes significantly less time to solidifying previously covered language structures. Instead it focuses predominantly on expanding students' proficiency in French as a vehicle for self-expression and for accomplishing tasks related to interactions with the community. Students also complete more specialized tasks (such as writing a professional email or soliciting or interpreting specialized information). Students are asked on occasion to accomplish tasks involving abstract ideas. Sources are selected to challenge students to expand their level of proficiency.

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

**LNGF 310 - French 4**

*Full credit, meets 4 days/week*

*Prerequisites: French 3*

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

**LNGF 320 - French 5**

*Full credit, meets 4 days/week*

*Prerequisites: French 4*

In this class, conducted almost exclusively in French, students deepen their knowledge of francophone cultures and refine their language, using diverse, contemporary cultural sources such as literary excerpts, newspaper articles, blogs, comic books, and francophone

films. The class will foster discussion, cultural comparisons and global awareness. The culminating group project will be a video production developed from one of the topics studied in class.

**LNGF 410 - Studies in French: Marges et centres du monde francophone**

*Full credit, meets 5 days/week*

*Prerequisites: French 3 Honors or French 4, and departmental approval (see below).*

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

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

**LNGF 420S- French Seminar**

*Full credit, meets 4 days/week*

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

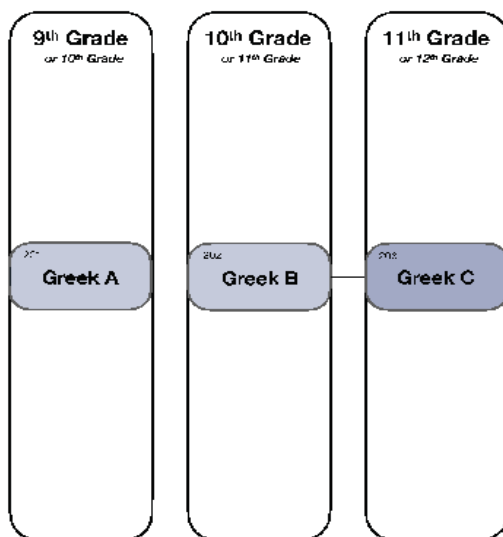
Conducted entirely in French, this course is designed for students who have had significant previous study and who are able to function independently in a French environment. Students at this level demonstrate a high level of proficiency in speaking and writing. The students will attain a broader appreciation of French culture and literature through film, articles, literary works, and other audio visual components. The class takes a discussion style format as students debate, inquire and make connections to better understand

French culture. The course includes topics such as: Gastronomy and French cuisine; Education; Introduction to the francophone world; Immigration; French cinema; French philosophers; Introduction to French literature and theater. Assessment for this class is based on formal and informal expression, both written and spoken, and consists primarily of class projects, essays and oral participation in class.

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

# Ancient Greek

## Greek Sequence



### **LNGG 201 - Ancient Greek A**

*One-half credit, meets every other day*

*Prerequisites: None*

This entry-level half credit course covers fundamentals of the language of the ancient Greeks and conveys a synopsis of their mythology, religion and culture. The class combines a thematic, story-based approach with structured grammar. Besides mastering basic forms of grammar and vocabulary, students will come to understand the relevance and scope of Greek derivation in contemporary English. Students will deepen their acquaintance with the classical world as they explore how its art, mythology, philosophy and science, and art have jointly helped shape the foundations of our civilization.

**LNGG 202 - Ancient Greek B**

*One-half credit, meets every other day*

*Prerequisites: Ancient Greek A or placement exam.*

In this half credit course students complete the study of grammar and vocabulary essential for progressing toward reading authentic Greek texts: to start, some of Herodotus' most compelling stories in the *Histories* about both mythical and historical protagonists of the Greco-Persian wars. The cultural emphasis of these readings rests on the early history and mythology of the ancient Greeks. Following student preference (and time permitting), the class will read selected passages from Homer's *Iliad*.

**LNGG 203 - Ancient Greek C**

*One-half credit, meets every other day*

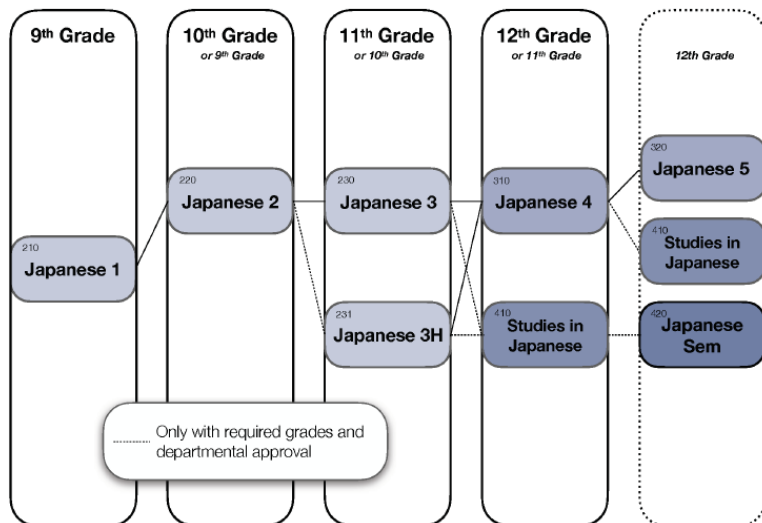
*Prerequisites: Ancient Greek B or placement exam.*

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

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

# Japanese

## Japanese Sequence



### LNGJ 210 - Japanese 1

*Full credit, meets 5 days/week*

*Prerequisites: None*

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

### LNGJ 220 - Japanese 2

*Full credit, meets 4 days/week*

*Prerequisites: Japanese 1 or placement exam.*

The course focuses on solidifying previously covered writing systems (Hiragana, Katakana and Kanji), language structures and vocabulary, expanding students' proficiency in Japanese for the purpose of self-expression and for navigating and accomplishing tasks related to everyday life. Students build on the skills acquired in Japanese 1 with a continued focus on acquiring proficiency in spoken and written

language forms. Various cultural topics are covered as students participate in Japan Day as well as a variety of other cultural and experiential learning activities.

**LNGJ 230 - Japanese 3**

*Full credit, meets 4 days/week*

*Prerequisites: Japanese 2 or placement exam.*

The course focuses on solidifying previously covered language structures and writing systems (Hiragana, Katakana and Kanji) and expanding students' proficiency in Japanese for the purpose of self-expression and for navigating and accomplishing tasks related to everyday life. Students work on mastering a number of complex grammatical forms. Reading comprehension of literary passages, essay and haiku writings, and some Japanese films are used to expose students to the language in authentic and natural contexts. This course emphasizes practical communication skills and the rudiments of the formal language, both written and spoken. The students participate in Japan Day and complete projects on cultural topics.

**LNGJ 231H - Japanese 3 Honors**

*Full credit, meets 4 days/week*

*Prerequisites: Japanese 2 and departmental approval required (see below).*

This course parallels Japanese 3. The course distinguishes itself by devoting significantly less time to solidifying previously covered language structures and writing systems, and by expanding students' proficiency in Japanese. Students are asked on occasion to accomplish tasks involving abstract ideas. Sources are selected to challenge students to expand their level of proficiency.

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

**LNGJ 310 - Japanese 4**

*Full credit, meets 4 days/week*

*Prerequisites: Japanese 3*

This course emphasizes developing fluency based on previously acquired grammar and vocabulary in Japanese. The course includes a comprehensive grammar review adding newer grammar structures, the writing of essays and poetry, and the reading of simple literary texts.

Students plan and perform a play and participate in other cultural events. The writing of Japanese on a computer is encouraged. This course is conducted primarily in Japanese.

**LNGJ 320 - Japanese 5**

*Full credit, meets 4 days/week*

*Prerequisites: Japanese 4 or 4 Honors*

This course is designed for students with a solid background in Japanese. Students learn to use honorifics, humble and polite language, increase their study of Kanji (Chinese characters), and read literary texts in Japanese. Students are encouraged to participate in speech contests and other events that promote the use of the language as well as the acquisition of cultural knowledge. The class is conducted completely in Japanese

**LNGJ 410 - Studies in Japanese: Traditional to Contemporary Culture, Language, and Society.**

This full-year course will be dedicated to the exploration of the intersections of four central themes. The four themes are: entertainment, Japanese history and geography, lifestyle, and formation of identity. Through close study and analysis of a selection of sources, students will cultivate linguistic and cultural competency. These skills will allow them to better understand and engage with the real world in Japanese.

It will also make sure they will gain cultural competence and understanding of traditional and modern Japanese culture. This course will emphasize 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. Their study of Japanese culture will give them more understanding of and respect for their own culture as a result, and become better global citizens with better understanding of and respect for different cultures.

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

**LNGJ 420 - Japanese Seminar**

*Full credit, meets 4 days/week*

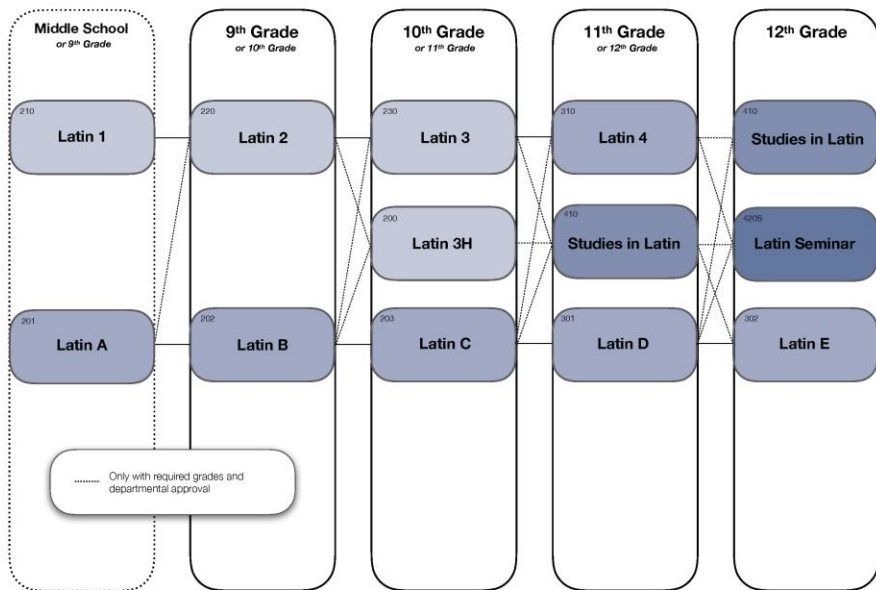
*Prerequisites: Studies in Japanese*

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

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

# Latin

## Latin Sequence



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 (continue to) study Latin alongside a modern language. With regard to the mastery of declensions, conjugations, and the grammatical structures of the Latin sentence, the half-credit course sequence operates at levels roughly equivalent to those of the full-credit course sequence, a parallel that allows students options to progress from a half-credit course to the next level full-credit course [e.g., from Latin C in 10<sup>th</sup> grade to Latin 4 or Rome's Epic Narrative in 11<sup>th</sup> grade] if they elect to transition from the half to the full-credit Latin sequence. Students committed to studying one language as a full credit and another as a half-credit for all four years may be exempted from one half-credit arts class. That is, if a student stays with half-credit Latin or Greek throughout all their years in the Upper Division, along with another language, they will be asked to complete 1.5 credits of arts to graduate, rather than 2.0. Each case will be evaluated by the student's grade dean and the Head of Upper Division.

**LNGL 201- Latin A**

*One-half credit course, meets every other day*

*Prerequisite: None*

This course parallels the curriculum of Latin 1. Latin A is a half-credit course at the introductory level, designed for students who want to start studying Latin alongside a full-credit modern language. The primary course focus rests on building a solid foundation for reading and enjoying classical works through mastery of vocabulary and the grammatical structures of the Latin sentence. As they acquire the skills to read stories from Roman mythology and history, students will become acquainted with the classical world, the Roman way of life, and Roman culture, as seen through the eyes of the great storytellers of Rome. Along the way, the class will explore the traces, both in the English language and in literature, left by the Latin language and by the stories Romans loved to hear, about their gods, their heroes, and their ancestors. Students will learn to understand Latin as a foundational language of a number of modern languages.

**LNGL 202 - Latin B**

*One-half credit course, meets every other day*

*Prerequisite: HM Middle Division Classics, Latin A or placement exam for new students*

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

**LNGL 203 - Latin C**

*One-half credit course, meets every other day*

*Prerequisite: Latin B or placement exam for new students*

This course parallels the curriculum of Latin 3. The core curriculum of third-year Latin embraces major authors of the late Republic and

early Empire: the chronicles of Caesar, the orations of Cicero, and the poetry of Ovid and Catullus. As students explore these writings, they will solidify their reading skills and broaden their capacity for analysis and nuanced interpretation. Other objectives of this course are to provide historiography and oratory of the Late Republic with historical and political contexts. Students explore the stylistic and literary diversity of classical authors as the latter evoke in vivid detail some of the most memorable political scenes of the Late Republic. Upon successful completion of this course, students may continue with Latin D or Latin 4.

### **LNGL 301 - Latin D**

*One-half credit course, meets every other day*

*Prerequisites: Latin E or placement exam for new students*

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

### **LNGL 302 - Latin E**

*One-half credit course, meets every other day*

*Prerequisites: Latin C or placement exam for new students*

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

connecting with varying aspects of Roman society which the traditional literary works fail to provide.

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

### **LNGL 210 - Latin 1**

*Full credit, meets 5 days/week*

*Prerequisite: None*

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

### **LNGL 220 - Latin 2**

*Full credit, meets 4 days/week*

*Prerequisite: HM Middle Division Classics, Latin I, Latin A, or placement exam for new students*

In Latin 2 students continue to expand and augment their reading skills, strengthening their grasp of core concepts of grammar and syntax, and enlarging their vocabulary. They develop a more nuanced understanding of Latin modes of expression. Along the way the class transitions from reading adapted Latin to reading authentic Latin, and time permitting, will start reading Caesar's account of the Gallic Wars in *De Bello Gallico*. In addition to solidifying their reading skills, students will develop a capacity for analysis and interpretation. Readings are balanced with descriptions of Caesar's character by his biographers, and will be viewed in the context of major political events of the Republic in the first century BCE.

### **LNGL 230 - Latin 3**

*Full credit, meets 4 days/week*

*Prerequisite: Latin 2, Latin B, or placement exam for new students*

The core curriculum of third-year Latin embraces major authors of the late Republic and early Empire: the chronicles of Caesar, the

orations of Cicero, and the poetry of Ovid and Catullus. As students explore these writings, they will solidify their reading skills and broaden their capacity for analysis and nuanced interpretation. A secondary objective of this course is to provide historiography and oratory of the Late Republic with historical and political contexts. Students explore the stylistic and literary diversity of classical authors as they draw before the reader some of the most memorable political scenes of the Late Republic.

### **LNGL 231H - Latin 3 Honors**

*Full credit, meets 4 days/week*

*Prerequisites: Latin 2, Latin B, or placement exam for new students and departmental approval (see below)*

The core curriculum of third-year Latin embraces major authors of the late Republic and early Empire. This course parallels Latin 3, but is faster-paced and devotes more detailed attention to the historical and political events that shape the era, and significantly less time reinforcing grammatical concepts and syntactical structures. As students learn to read the chronicles of Caesar, the orations of Cicero, and the poetry of Ovid and Catullus among others, they will solidify their reading skills and broaden their capacity for analysis and nuanced interpretation. This course will provide historiography and oratory of the Late Republic with pertinent historical and political contexts. Students explore the stylistic and literary diversity of classical authors of the Late Republic.

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

### **LNGL 310 - Latin 4**

*Prerequisite: Latin 3, Latin 3 Honors, or Latin C*

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

Roman historiography and the ways in which narrative order is conceived, and to how these works resonate against the political, cultural, and historical background of the times in which they were written.

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

*Full credit, meets 5 days/week*

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

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

Approval requirements: Meeting prerequisites and departmental approval; additional skills based assessment if warranted.

**LNGL 420S - Latin Seminar**

*Full credit, meets 4 days/week*

*Prerequisites: Latin 4, Latin D or Latin E, or Studies in Latin and departmental approval (see below)*

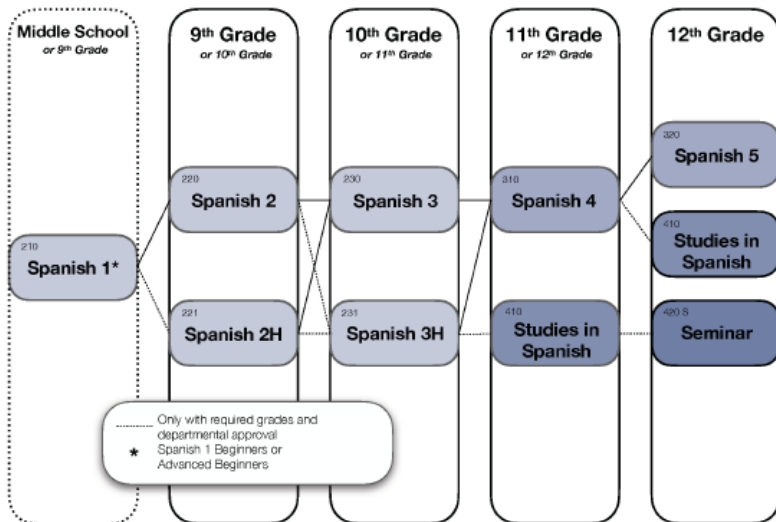
The objective of this seminar course is to explore in greater detail important works (both literary and epigraphic) of the late Republican and early Imperial periods. A significant focus will be placed on understanding the stylistic values embraced by the poetae novi of the first century BCE as embodied 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: Meeting 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 Spanish 2 the following academic year.

### LNGS 211 - Spanish 1 for Advanced Beginners

*Full credit, meets 4 days/week*

*Prerequisites: Placement exam for students with 1 - 2 years of Middle Division Spanish.*

This course provides students with limited previous experience studying Spanish the opportunity to review basic skills of

communication before proceeding to more complex uses of the language. Students manipulate basic language structures through activities with a communicative purpose, talking about themselves, requesting and giving information about people, expressing likes, dislikes, needs and obligations. Through authentic sources from different parts of Spanish speaking world, in a variety of media, students develop all three modes of communication: interpretive, interpersonal and presentational while learning about contemporary culture and history of Latin America and Spain. This course prepares students for success in Spanish 2 in the following academic year.

**LNGS 220 - Spanish 2**

*Full credit, meets 4 days/week*

*Prerequisites: HM Middle Division Spanish 3, Spanish for Advanced Beginners or Spanish 1 or placement exam for new students.*

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

**LNGS 221H - Spanish 2 Honors**

*Full credit, meets 4 days/week*

*Prerequisites: Middle Division Accelerated Spanish 3 and departmental approval; placement exam for new students.*

Conducted almost entirely in Spanish, this course parallels Spanish 2. It distinguishes itself by focusing on expanding students' proficiency in Spanish. At this level, students activate new language structures through activities with a communicative purpose, describing and comparing places, relating biographical and autobiographical data, and talking about health. Authentic Spanish sources are selected to challenge students to expand their level of proficiency.

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

**LNGS 230 - Spanish 3**

*Full credit, meets 4 days/week*

*Prerequisites: Spanish 2*

Conducted primarily in Spanish, this course continues the work done in Spanish 2. The course works on solidifying previously covered language structures and expanding students' proficiency and

accuracy in Spanish. Tasks and collaborative projects help students to talk about their communities and consider global issues. They practice narrating in different time frames and debating and justifying their opinions with arguments. Authentic sources from different parts of the Spanish speaking world, in a variety of media, are used to develop all three modes of communication: interpretive, interpersonal and presentational, and assessments will emphasize proficiency. Students learn about contemporary culture and history of Latin America and Spain, and compare it with their own.

### **LNGS 231H - Spanish 3 Honors**

*Full credit, meets 4 days/week*

*Prerequisites: Spanish 2 Honors or Spanish 2 and departmental approval.*

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

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

### **LNGS 310 - Spanish 4**

*Full credit, meets 4 days/week*

*Prerequisites: Spanish 3 or Spanish 3 Honors*

Students continue to develop their proficiency in Spanish 4, by refining the linguistic resources learned previously and building up new ones. A balance between accuracy and fluency is achieved by accomplishing tasks and collaborative, communicative projects, that further connection between form and meanings, and the use of forms in context. Students work on topics related to Spanish and Latin American cultural, social, and historical life, developing critical thinking and fostering cultural competence. In Spanish 4, students develop a collaborative, year-long project on a topic of their choice related to the Spanish speaking world: they write a blog throughout the year, and present 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 Honors or Spanish 4*

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

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

*Full credit, meets 5 days/week*

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

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

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

**LNGS 420S - Spanish Seminar: The Hispanic World**

*Full credit, meets 4 days/week*

*Prerequisites: Studies in Spanish and departmental approval.*

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

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

## **Summer Program at Horace Mann**

*There will be no Summer Program of any kind in the Upper Division in 2021.*

When it becomes possible to run the revamped program we envision, we will offer courses that meet our central goal: academic and artistic exploration. Upper Division students will 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. Ideally, our course selection will be experimental, experiential, cross-disciplinary, and feature, above all, the pleasure of intellectual play. While some courses might address building skills, many will center around the principle of learning for learning's sake. Our Summer Program will tap 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 will not be on the school transcript, nor on advancement within our school-year curriculum. When our program resumes, it will not offer any full-credit, credit-bearing courses. We may, 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 are likely to include: CPR, Health, Lifeguarding, one Art Appreciation course per summer, and one Computer Science or Engineering course per summer.