



2025 - 2026 Upper School Course Catalog

Choosing Courses in the Upper School

Major and Minor Courses

Honors, AP, and Advanced Courses

Graduation Requirements

Classics Department

601. Latin I - Ma

602. Latin II - Ma

603. Latin III - Ma Hn

604. Latin IV - Ma Hn

605. AP Latin - Ma AP

615. Post-AP Latin Seminar: Reading and Research - Mi Ad

610. Classical Greek - Ma Ad

616. Classical Greek II - Mi Ad

258. Great Books Seminar - Mi Hn

College Counseling

974. Junior College Seminar - Mi

Computer Science Department

Computer Science Course Map with Grade Eligibility

Device Specifications for Computer Science Courses

710. Intro to Computer Science - Mi

725. Programming, Simulations & Design - Mi

755b. Game Design and Programming - Mi Hn

723. AP Computer Science A - Ma AP

715. Post-AP Comp Sci: Mobile App Development - Ma Ad /Mi Ad

717. Post-AP Comp Sci: Data Analytics & Visualization - Ma Ad /Mi Ad

English Department

101. English 9 - Ma

103. English 10 - Ma

105. English 11 - Ma Hn

107. English 12 - Ma Ad

107d. Machines Like Us: What AI Fiction Asks Us

107e. Joyful Noises: Music, Literature, & Culture

107g. Celebrity and Culture: Close Reading Texts and Contexts

107h. Rebirth from the Ashes: Literature of Collapse, Survival, and Reinvention

Advanced Placement English Exams

English Electives

060. Independent Research in English - Mi Ad

- 172. Oral History and Storytelling - Mi Hn
- 152. The Vision - Mi
- 185. Sophomore Seminar in Creative Writing - Mi
- 123. Creative Writing - Mi
- 126. Creative Writing II - Mi Hn
- 165. Historical and Literary Analysis via Role-Play Games - Mi
- 157. Foundations of Reading, Writing, and Thinking - Mi
- 166. English: Teaching Assistant - Mi
- 968. Public Speaking - Mi

Health and Wellness

- 972. 9th Grade Peer Advisory - Mi
- 972b. Peer Advisory Leaders - Mi
- 071. Health 10 - Mi

History Department

- 202. World History I, 1650-1919 - Ma
- 204. United States History to 1900 - Ma
- 206. Twentieth Century World History - Ma Hn
- Major Electives
- 205. Economics - Ma Hn
- 211. Modern European History - Ma Ad
- 214. Government and Politics: The United States and the World - Ma Ad
- 231. History of Media & Culture - Ma Hn
- 246. American Law - Ma Hn
- Minor Electives
- 220. Contemporary Issues Seminar - Mi Ad
- 258. Great Books Seminar - Mi Hn
- 262. Independent Research in History - Mi Ad
- 172. Oral History and Storytelling - Mi Hn
- 165. Historical and Literary Analysis via Role-Play Games - Mi

Interdisciplinary Studies

- 1010. Service Leadership for Social Impact - Mi
- 1020. America's National Parks: Deserts, Forests, Mountains, and Oceans - Mi
- 732g. Yearbook Production: Hilltop - Mi
- Electronic Publishing Courses
- 740. Journalism I: Intro to The Dial - Mi
- 741. Journalism II: The Dial - Mi
- 742. Journalism III: The Dial Editors - Mi Ma
- 152. The Vision - Mi

Math Department

- Math Course Map (with Eligibility Grade Requirements)
- 301. Algebra I: Quadratic Topics - Ma

302. Geometry - Ma
302a. Geometry Accelerated - Ma Hn
320. Algebra II and Trigonometry - Ma
320a. Algebra II and Trigonometry Accelerated - Ma Hn
320b. Algebra II and Trig with Advanced Problem Solving - Ma Ad
366. PreCalculus - Ma
366a. PreCalculus Accelerated - Ma Hn
366b. PreCalc and Differential Calculus with Advanced Problem Solving - Ma Ad
330. Statistics and Probability - Ma
309. AP Statistics - Ma AP
329. Calculus-Based AP Statistics - Ma AP
328. AP Calculus AB - Ma AP
310. AP Calculus BC - Ma AP
312. AP Calculus AB & BC - Ma AP
314. Multivariable Calculus/Linear Algebra - Ma Ad

Modern Languages Department

French

501. French I - Ma
502. French II - Ma
503. French III - Ma Hn
503b. French III Intensive - Ma Hn
504. French IV - Ma Hn
506. French V - Ma Hn
507. AP French Language and Culture - Ma AP
509. Post-AP Advanced French Literature - Ma Ad

Spanish

511. Spanish I - Ma
512. Spanish II - Ma
513. Spanish III - Ma Hn
513b. Spanish III Intensive - Ma Hn
514. Spanish IV- Ma Hn
526. Spanish V - Ma Hn
517. AP Spanish Language & Culture - Ma AP
516. Post-AP Spanish: Literature & Film - Ma Ad
519. Post-AP Spanish: Language & Culture - Ma Ad
525. Post-AP Spanish Level II: Mastering Fluency - Mi Ad

Chinese

561. Chinese I - Ma
562. Chinese II - Ma
563. Chinese III - Ma Hn
564. Chinese IV - Ma Hn
566. Chinese V - Ma Hn
567. AP Chinese Language and Culture - Ma AP

568. Post-AP Chinese Language, Literature, and Culture - Mi Ad

Performing Arts Department

Music Courses

922d. Treble Chorus - Mi

922b. Male a Cappella - Mi

914. String Orchestra and Chamber Ensembles - Mi

916. Band Ensembles: Concert Band, Jazz Orchestra, and Chamber Ensembles - Mi

970. Jazz Combos - Mi

Drama Courses

980. Theater Project Workshop - Mi

966. Acting: The Craft - Mi

978. Musical Theater Seminar - Mi

968. Public Speaking - Mi

Physical Education - Mi

978. Musical Theater Seminar - Mi

1075. Outdoor Adventure and Wilderness Skills - Mi

Science Department

418. Physics - Ma

408. Chemistry - Ma

408a. Chemistry Intensive - Ma Hn

10th Grade – see eligibility requirements

427. Biology: Organisms and Systems - Ma Hn

428. Biology: Cells and Cellular Mechanisms - Ma Hn

11th or 12th Grade – see prerequisites

Science Major Electives

424. Applied Physics - Ma Hn

455. Food and Power: The Science and Politics Behind What We Eat - Ma Hn

417. Applied Forest Ecology Research - Ma Hn

411. AP Chemistry - Ma AP

421. AP Physics C: Mechanics - Ma AP

405. AP Biology - Ma AP

460. Independent Science Research - Ma Ad

Science Minor Electives

434. Neuroscience - Mi Hn

444. Astronomy and Meteorology - Mi Hn

448. Submersible ROV Engineering - Mi Hn

Visual Arts Department

811. Foundations of Studio Art - Mi

812. Intermediate Studio Art (Minor) - Mi Hn

814. Intermediate Studio Art (Major) - Ma Hn

815. Studio Art Intensive - Ma Hn

822. Three-Dimensional Sculpture & Design - Mi

818. AP Studio Art - Ma AP

833. Intro. to Photography and Digital Design - Mi
835. Intermediate Photography and Digital Design - Mi Hn
838. Photography and Digital Design Intensive - Ma Hn
839. AP Digital Photography - Ma AP
842. Architecture and Design - Mi Hn
865. Introduction to Filmmaking - Mi Hn
152. The Vision - Mi

Choosing Courses in the Upper School

Major and Minor Courses

The Upper School Hackley schedule is an 8-day cycle with five academic periods per day. A **“major class”** is a 3-credit class that meets five times per cycle, the maximum possible number of meetings. Required English, history, math, science, and language classes, as well as many electives in these and other subjects, are majors. **“Minor classes”** refer to electives that meet fewer than five days per cycle. Minors are one or two credits, based on number of meetings and work load.

Honors, AP, and Advanced Courses

Courses designated as honors, advanced, or AP signal that the course has prerequisites and/or a high level of rigor. All students enrolled in an Advanced Placement course are required to take the corresponding AP exam in May.

Course Coding Key	
Minors - meet fewer than 5x per cycle	Mi
Majors - meet 5x per cycle	Ma
Honors Level - increased rigor	Hn
AP - College Board Advanced Placement Course	AP
Advanced - Highest level of rigor	Ad

Graduation Requirements

- 9th, 10th, and 11th grade students must take a minimum of five major classes per year. 12th graders may take two minors in lieu of a fifth major in their senior year, only.
- A sixth, three-credit academic major may be added only after consideration of the additional workload and the student's other commitments. **Seven academic majors is not an option.**
- One year of a qualifying performing or visual arts course.
- Four years of English.
- Mathematics through Algebra II and Trigonometry.
- Spanish, French, Chinese or Latin through Level III.
- Three-year history sequence: World History I, 1650-1919; U.S. to 1900; 20th Century World. Another history course may substitute for World History I, 1650-1919 for students entering Hackley after 9th grade.
- Three-year, laboratory-based science sequence: (1) Physics; (2) Chemistry or Chemistry Intensive; and (3), either Biology: Organisms, or Biology: Cells. Modifications are made for students entering Hackley after 9th grade who may have completed one or more of a similar course in a different order.
- All 9th graders will be enrolled in Peer Advisory.
- All sophomores will be enrolled in Health. (This is a New York State graduation requirement.)
- All juniors will be enrolled in Junior College Seminar.
- All seniors do a project in the spring of their senior year.
- Students not meeting a minimum standard of competency in writing in English and history may be asked or required to enroll in a writing workshop or to participate in some other program to support their writing.
- Each season, all students must enroll in physical education or play on a junior varsity or varsity team.

Minimum Graduation Requirements				
	Ninth Grade	Tenth Grade	Eleventh Grade	Twelfth Grade
English	English 9	English 10	English 11	English 12
History	World History I, 1650-1919	U.S. History	20th Century World in either 11th or 12th	
Math	At least through Algebra II and Trigonometry; four years recommended			
Science	Physics	Chemistry or Chemistry Intensive	Biology: Organisms and Systems or Biology: Cells and Cellular Mechanisms in either 11th or 12th	
Language	Spanish, French, Chinese, or Latin through level III; four years recommended			
Art	One year of performing or visual arts (see qualifying courses)			
Other Electives	While minors are popular with all 9-12th grades, they are not required for graduation. For 12th grade only: two minors may be taken in lieu of a 5th major.			
P.E./Sports	P.E. class or sports team each trimester for all four years			
Required	Peer Advisory	Health	Junior College Seminar	Senior Project

Notes on Course Selection

The Upper School Hackley curriculum is, by design, extremely flexible. It is meant to be tailored to individual interests and needs. Take full advantage of the guidance available from advisors, teachers, college counselors, and the Upper School Director and Assistant Director. With their input, students should build a challenging – yet not overwhelming– program that reflects immediate interests as well as long term goals. Creating the Upper School Master Schedule is a complex process that takes many months. It is crafted in a painstaking, deliberate manner based on *hundreds of requests*. As such, any changes in the summer or early fall are made only for compelling reasons, and may impact the other course requests that are important to you.

All courses in the catalog are 3-credit Majors that meet 5x per cycle, unless noted otherwise.

Textbooks listed are representative; they change as publications are updated or discontinued.

Classics Department

601. Latin I - **Ma**

This course presents basic Latin vocabulary and grammatical structures, such as declensions, conjugations, dependent clauses, the indicative mood, noun/adjective agreement, constructions of time and place, the active and passive voices. In addition to grammar and vocabulary, students are introduced to Roman history of the late Republican and early Imperial periods through the life of the poet Horace, whose poetry students will study in Latin 3. Considerable attention is paid to English derivatives from Latin vocabulary, myth, Roman culture, geography, art and archaeology. Emphasis is placed not only on reading but also on speaking Latin. Students will use extensive online resources- including vocabulary flashcards, drills, and other materials - which complement the textbook.

602. Latin II - **Ma**

This course reviews the conjugations, declensions, and grammar learned in Latin I and then presents the subjunctive mood and subjunctive constructions, such as result clauses, indirect questions, and purpose clauses. Students encounter the ablative absolute, indirect statement, and other dependent clause constructions. Students begin to tackle authentic Latin in the form of excerpts from Horace's poetry. Online resources remain an integral component of this course. The *Oxford Latin Course, College Edition* is an accelerated version of the series used in the Middle School Latin classes; this consistency of approach will ease the combination of rising 9th graders with new students to Hackley in the Latin 3 class.

603. Latin III - **Ma** **Hn**

This course focuses primarily on the literature of the late Republican and early Imperial periods of Roman history. Following a comprehensive review of Latin grammar, students read excerpts from Caesar's *Commentarii*, Cicero's orations (studying rhetorical techniques, periodic sentence structure, and contemporary Roman history), Vergil's *Aeneid*, and Catullus, as well as Horace and Ovid as time permits. Students will study the character of Julius Caesar and his role in the final years of the Roman Republic. Particular attention will be paid to rhetorical and poetic devices, such as hyperbole, anaphora and tricolon, poetic meter, and poetic forms.

604. Latin IV - **Ma** **Hn**

Latin IV focuses on cementing grammar concepts and vocabulary through authentic Latin.

Students will build on the reading from Latin III – Cicero, Caesar, and Vergil – and will explore the poetry of Ovid, Catullus, and Horace as well. Students will expand upon their knowledge of archaeological techniques by participating in a variety of online resources (such as MOOCs), as well as practicing on site excavation at our own Hackley dig site. Students will practice writing literary critical essays, expand their knowledge of late Republican and early Imperial history, and experience passage-based multiple choice questions; this will prepare students to meet the challenges of AP Latin: Vergil and Caesar.

605. AP Latin - Ma AP

Prerequisite: Latin IV with a B average and recommendation of the Latin IV instructor or an A- test average in Latin III and recommendation of the Latin III instructor and department head.

Students will read selections from books 1-6 of Vergil's *Aeneid* and from books 1-6 of Caesar's *de Bello Gallico*, as directed by the AP syllabus. Through practice AP questions, writing literary critical essays, and the honing of translation skills, students prepare for the AP examination in May. In addition to stylistic idiosyncrasies and specialized vocabulary, students learn to examine word choice, literary devices, meter, word painting, and tone in their analysis. Themes such as Roman values, war and empire, leadership, views of non-Romans, history and memory, and human beings and the gods will be explored in the works of both authors. Students are encouraged to reduce their reliance on notes and vocabulary lists as they make the transition from translation to reading.

615. Post-AP Latin Seminar: Reading and Research - Mi Ad

Minor course: 3 meetings per eight-day cycle/2 credits. May be repeated for credit.

Prerequisite: AP Latin

This advanced reading course will immerse students in ongoing study of an author, genre, or topic of their choice. Readings will be selected according to the interests of the students and will vary from year to year (see sample topics below). The seminar is entirely discussion-based, and students will be expected to collaborate in a workshop setting. The course will culminate in a research paper or project in which students engage the broader community. The course provides students with the dual benefit of continuing to build their skills in Latin while also learning how to do scholarly research in the field of Classics.

610. Classical Greek - Ma Ad

Open to juniors and seniors

Prerequisite: Intermediate level in any foreign language (Latin is not required)

This is an intensive course in the elements of Classical Greek for students who have had success in other language courses. A strong command of grammatical terminology and the workings of an inflected language is mandatory. This course will prepare the student for further study at the college level.

616. Classical Greek II - Mi Ad

Minor Course: 3 meetings per eight-day cycle/2 credits.

Open to seniors

Prerequisite: Classical Greek; Instructor Permission

This is an intensive course for students who wish to continue with their study of Classical Greek.

258. Great Books Seminar - Mi Hn

Minor Course: 3 meetings per eight-day cycle/2 credits.

Cross listed in History; [see description in History](#).

Open to juniors and seniors or by instructor permission.

College Counseling

974. Junior College Seminar - **Mi**

Minor Course: 1 meeting per eight-day cycle/0 credits. No Grade.

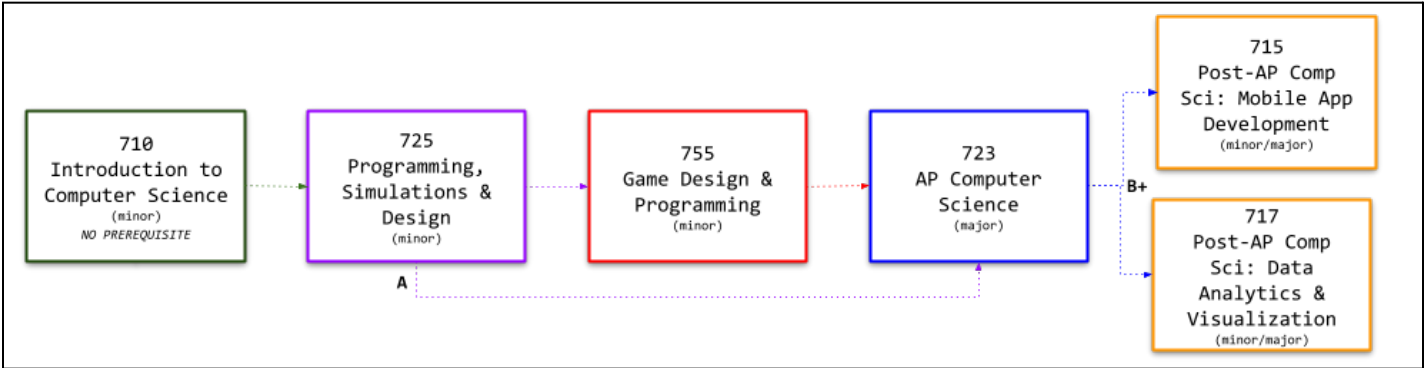
Juniors automatically enrolled.

This course is designed to encourage self-reflection and help students engage more deeply with their high school experience as they prepare for the college application process. Through frequent writing exercises, students learn to think critically about their values, identity, and personal growth—an essential skill for both self-discovery and college applications. These exercises help students to articulate their stories in a meaningful way and allow counselors to get to know students on a deeper level, valuable preparation for the college process. Many writing prompts mirror actual college application questions, encouraging students to explore their experiences and perspectives. In addition to writing, students identify key criteria for their college search—such as size, location, financial aid, diversity, and extracurricular opportunities—refining their preferences over time. The course also introduces students to the college admissions process, including holistic review and institutional priorities, helping them understand how applications are evaluated and what colleges consider when making decisions. Juniors can also expect to begin filling out components of the Common Application, discuss and request who and when to ask for teacher letters of recommendation, brainstorm essay ideas, and learn how to research and build thoughtful and balanced college lists.

Computer Science Department

Computer Science Course Map with Grade Eligibility

Any student seeking diagnostic or advanced placement should review the Computer Science course map and descriptions before reaching out to the Computer Science Department Chair.



Device Specifications for Computer Science Courses

A tablet or Chromebook will not support the required installations for courses beyond 710. Additionally, when selecting between Windows or Mac, please keep in mind that a Mac device will be needed for 715, where focus is developing for iOS (iPhone Operating System). This is the sole case that a Windows device will not be sufficient.

Please do not hesitate to reach out to the Computer Science Department Chair or Division Director with financial aid questions or hardships related to obtaining a device.

For Windows Laptops

Operating System	Recommended: Windows 11 version 23H2 or later
Processor	Minimum: Intel Core i5 dual-core processor (12th Generation) Recommended: Intel Core i5 quad-core processor, i7, or i9 (13th Generation or later)
Memory	Recommended: 16GB or more
Hard Drive	Minimum: 256GB SSD Recommended: 512GB or larger SSD

For Apple Mac Laptops

Operating System	Minimum: MacOS Sonoma Recommended: MacOS Sequoia
Processor	Minimum: Apple M2 Recommended: Apple M3 or M4 processor
Memory	Recommended: 16GB or more
Hard Drive	Minimum: 256GB SSD Recommended: 512GB or larger SSD

710. Intro to Computer Science - Mi

Minor Course: 3 meetings per eight-day cycle/2 credits

Prerequisite: none

This course delves into the basic principles of computer science. Students will explore fundamental programming concepts, learn how the Internet works, and delve into cybersecurity. They will explore a variety of coding environments that use both block and text-based programming. Emphasis will be placed on problem-solving and the need to structure and develop solutions in a logical manner. Other topics include: creativity and conceptualization, physical computing, analysis of algorithms, the influence computer science has on economic, social, and cultural innovation.

725. Programming, Simulations & Design - Mi

Minor Course: 3 meetings per eight-day cycle/2 credits

Prerequisite: Intro to Computer Science 710 or placement exam

This course is recommended for students who are comfortable moving into syntax-based programming and have a basic understanding of loops, selection statements, variables and logical thought. The course will use visual programming, and an IDE (Integrated Development Environment) to build on prerequisite concepts. Students will use object oriented design concepts to structure syntactically valid programming statements in a logical manner to develop games and simulations and learn strategies to assist with planning, designing and implementing programs. Programming concepts include: objects, primitive data types, classes, inheritance, conditional statements, iteration and introduction to arrays.

755b. Game Design and Programming - Mi Hn

Minor Course: 3 meetings per eight-day cycle/2 credits

Prerequisite: Programming, Simulations, and Design 725 or placement exam

This course is recommended for students who have an intermediate understanding of programming concepts. Correlations to topics learned in the prerequisite will be created while students develop a variety of interactive games via hands-on projects using a gaming environment and language. Students must be able to navigate an API, debug code and construct syntactically valid programming statements. Understanding of control flow,

variables, objects, functions, and inheritance are necessary. By class's end, students will have programmed several of their own games and gained a thorough understanding of the basics of game design and development.

723. AP Computer Science A - Ma AP

Prerequisite: "A" in Programming, Simulations, and Design 725 or placement exam

This course is recommended for students who can construct syntactically valid programming statements and understand flow of control, variables, methods, classes, IDE's and APIs. It will prepare students for the AP Computer Science examination in the Java programming language. Fundamental skills are necessary in order to design and implement computer programs that are understandable, adaptable, reusable and solve a problem. The goals of this course are comparable to those found in many introductory Computer Science courses offered by universities. Topics include: algorithm analysis and development, advanced data structures, program implementation, analysis and computing in context.

715. Post-AP Comp Sci: Mobile App Development - Ma Ad / Mi Ad

Offered as both:

- *Major Course: 5 meetings per eight-day cycle/3 credits*
- *Minor Course: 3 meetings per eight-day cycle/2 credits*

Prerequisite: "B+" or above in AP Computer Science 723 or permission of Department Chair

This course is recommended for self-motivated students who can construct syntactically valid programming statements with an understanding of object-oriented programming concepts including: encapsulation, abstraction, inheritance, interfaces, flow of control, method decomposition, and construction. This project-based course examines the principles of mobile application design and development. Students specify and clearly define a project which produces a quality mobile app pursued throughout the course. Course work will include project conception, design, implementation, and pilot testing through mobile phone applications on a predetermined platform. Students are required to provide demos, participate in informal discussions, and meet deadlines toward completing a proposed project.

717. Post-AP Comp Sci: Data Analytics & Visualization - **Ma** **Ad** / **Mi** **Ad**

Offered as both:

- *Major Course: 5 meetings per eight-day cycle/3 credits*
- *Minor Course: 3 meetings per eight-day cycle/2 credits*

Prerequisite: "B+" or above in AP Computer Science 723 or permission of Department Chair

This course is recommended for self-motivated students who can implement programs with object-oriented concepts, and who have an interest in utilizing programming knowledge in a statistics setting. This course will utilize Python to explore different types of datasets. You will learn how to prepare data for analysis, perform simple statistical analysis, create meaningful data visualizations, predict future trends, and more! Topics covered: (1) Importing Datasets (2) Cleaning the Data (3) Data Frame Manipulation (4) Summarizing the Data (5) Building Machine Learning Regression Models (6) Building Data Pipeline.

English Department

101. English 9 - **Ma**

Required for ninth-graders.

Ninth-grade English introduces upper school students to the foundational reading, writing, and analytical skills essential for high school and beyond. Through drama, film, creative nonfiction, poetry, short stories, and novels, students learn to recognize genre conventions, close-read language-based details, and identify textual patterns. These skills form the basis of argumentation in both verbal discussions and written work. Writing serves as both a tool for idea generation and a means of expression, encompassing analytical essays, creative writing, and multi-stage assignments from proposals to final drafts.

Typical texts include a summer reading selection, poetry, short fiction, an episode of *Black Mirror* ("Nosedive"), the film *Moulin Rouge!*, and books such as *The Shadow Hero* and *The Catcher in the Rye*.

103. English 10 - **Ma**

Required for sophomores.

In tenth-grade English, we explore works of poetry, drama, and fiction in order to develop students' reading, writing, and speaking skills. In developing these skills, students enhance their ability to explore textual patterns (reoccurring language in a text) and to reflect on the consequences of abstract ideas in the world beyond the text. Classroom discussion supports the development of close-reading and analytical thinking, and students take increasing ownership in discussion over the course of the year. In their writing, students continue to develop upon the analytical foundations learned in ninth grade. Their writing throughout the year consists of in-class essays, homework posts, reflective journals, some creative work, and formal multi-stage essays that move from generative writing to topic proposals to drafts to final versions.

Possible course texts include a summer reading text, a variety of poetry and short fiction, a Shakespearean play, and a novel (past works include: *The Stranger*, *Chronicle of a Death Foretold*, *Leave Taking* and others).

105. English 11 - Ma Hn

Required for juniors.

In eleventh-grade English, we explore works of fiction, nonfiction, and poetry in order to continue to develop students' reading, writing, thinking, and speaking skills. In this curriculum that emphasizes the way stories are told, students will encounter challenging and divergent styles of narrative that will enhance their ability to reflect on the consequences of abstract ideas in the world beyond the text. Classroom discussion and online discussion board posts function as the bedrock of course, and, as the year progresses, class will be run via student presentations and leaderless discussions. In their writing, students continue to develop their analytical skills from tenth grade, but with a focus on putting texts in conversation with contemporary articles, pop culture, and literary theory. Their writing throughout the year consists of in-class essays, homework posts, reflective journals, some creative work, and formal multi-stage essays that move from generative writing to topic proposals to drafts to final versions.

Possible course texts include a summer reading text, American fiction, nonfiction, poetry, and scholarly articles (past works include: *Homegoing*, *Slaughterhouse Five*, *The Passion*, *The Great Gatsby*, *Get Out*, and *The Bluest Eye*).

107. English 12 - Ma Ad

Required for seniors.

The English Department offers four course options to seniors:

- Machines Like Us: What AI Fiction Asks Us
- Joyful Noises: Music, Literature, & Culture
- Celebrity and Culture: Close Reading Texts and Contexts
- Rebirth from the Ashes: Literature of Collapse, Survival, and Reinvention

Students rank their preferences when they register, but first choices cannot be guaranteed.

107d. Machines Like Us: What AI Fiction Asks Us

Artificially intelligent beings have populated literature since the Talmud, where the prophet Jeremiah animates a being of clay. While some AI stories depict destruction, the most compelling ones challenge us to ask: What are the costs and benefits of technology? Are we

programmed or free? What defines self-awareness, friendship, or belief? Rather than tackling all these questions at once, we will begin with short readings to explore our interests.

Our work will include analytical essays, response pieces, opinion writing, AI-themed microfiction, and creative projects beyond writing. We will also experiment with AI, both critically and playfully, while tracking its latest developments.

To build an analytical framework, we will engage with nonfiction such as Haraway's *Cyborg Manifesto* and Harari's *Sapiens* and *Homo Deus*, alongside more speculative perspectives like Virk's *The Simulation Hypothesis* and Kurzweil's *The Singularity is Near*.

Possible texts include *Star Trek*, *Battlestar Galactica*, *Ghost in the Shell*, *Blade Runner*, *2001: A Space Odyssey*, the Talmudic Golem, Yang's "Patterns of a Murmuration in Billions of Data Points," Chiang's "Exhalation," and novels such as Asimov's *I, Robot*, Shelley's *Frankenstein*, Ishiguro's *Klara and the Sun*, McEwan's *Machines Like Me*, and Stivers' *Mother Code*.

107e. Joyful Noises: Music, Literature, & Culture

It should tell us something about the relationship between great literature and music that Homer, of *The Iliad* and *The Odyssey*, started both of those epic poems with the same word: "Sing." The narrator of these classics wanted not just to tell the story of the Trojan War and the wandering adventures of Odysseus, but to tell those stories in ways that would soar & stick in the mind of listeners. And each of those long poems feature music extensively, with song as a primary mode of storytelling, entertainment, and communal memory.

While we won't study Homer (there's a whole Classics Department for that!), we will explore the intersections of literature and music through close reading and listening. By examining texts where music plays a central role, we'll ask: How can music be literary? How can literature be musical? Using literary theory, we'll analyze character psychology, socioeconomic issues, gender, and race—both historically and today.

This course also includes creative writing, with opportunities to craft music criticism and even write songs. So, if your AirPods are always in, your #SpotifyWrapped topped 10K minutes, and you love all kinds of music and literature—classical, pop, rock, soul, hip-hop, indie, novels, short stories, poems, plays—this course might be for you.*

Texts may include *Daisy Jones and the Six* (summer reading) by Taylor Jenkins Reid or *Bel Canto* (summer reading) by Ann Patchett; *Orfeo* by Richard Powers; *Nocturnes* by Kazuo Ishiguro; *A Little Devil in America* by Hanif Abdurraqib, *Olio* by Tyehimba Jess, *To Repel Ghosts* by Kevin Young, short fiction by James Baldwin & Haruki Murakami; poetry by many, many poets; music criticism by Amanda Petrusich, Jessica Hopper, & many others; & excerpts from *How To Write One Song* by Jeff Tweedy of Wilco.

107g. Celebrity and Culture: Close Reading Texts and Contexts

From viral videos to shareable memes, from internet fandoms to media firestorms, pop culture dominates our collective consciousness. In an era of endless content and instant access, the way we consume and interact with media – whether through music, film, social platforms, or celebrity spectacle – raises compelling questions. What makes a pop culture figure iconic? How does the media shape and sustain celebrity narratives? Where do art and commerce collide, and what does that mean for authenticity, artistic merit, and consumer culture?

In this course, we will explore these questions by analyzing pop culture as a text – examining how celebrity identities are constructed, how audiences engage with them, and how cultural commentary both celebrates and critiques the entertainment industry. We will consider the phenomenon of fandom, the spectacle of celebrity, and the influence of media on perception. Using literary and cultural theory, we'll investigate how race, gender, and power intersect in the world of entertainment.

Course texts may include *A Visit from the Goon Squad* by Jennifer Egan, *Yellowface* by R.F. Kuang, *The Seven Husbands of Evelyn Hugo* by Taylor Jenkins Reid (summer read), *Trick Mirror* by Jia Tolentino (selected essays), Baz Luhrmann's *Elvis*, and selected short works, poetry, and works of theory. We will also analyze contemporary celebrity culture, including Taylor Swift's work and the discourse surrounding her, as a case study in the mechanics of fame, media narratives, and cultural impact.

107h. Rebirth from the Ashes: Literature of Collapse, Survival, and Reinvention

Your final year. High school will be done in a matter of months, a youthful chapter abruptly ending, a new journey beginning. With childhood in the rearview mirror, a new calling rings out, a new identity blossoms.

In this class, we will investigate literature that lives in that transitional chaos, and explore narratives that highlight this cycle of ruin and renewal. We will ask ourselves what happens when societies crumble, civilizations vanish, or personal identities unravel?

Rebirth from the Ashes examines texts across time and cultures, along with philosophy, film, music and visual art that grapple with endings and beginnings – from apocalyptic devastation to spiritual rebirth.

Possible Texts Include: *The Road*, *Blindness*, *Beloved*, *Moon of the Crusted Snow*, *The Cherry Orchard*, *Waiting for Godot*, *The Garden of Forking Paths*, *Metamorphosis*, *The Second Coming*, *The Waste Land*, *Ecclesiastes*, *My Father, In Heaven*, *Is Reading Out Loud*.

Possible Film/ Art/Music: City of God, Children of Men, Guernica, The Tower of Babel, The Raft of the Medusa, The Course of Empire: Destruction, The End, It's The End of the World as We Know It, Symphony No. 7 in C major, "Leningrad".

If you're intrigued by how we navigate the end of things - or wondering what comes next - this class will offer the opportunity to write about, create from, and critically examine this decaying yet strangely fertile territory.

Advanced Placement English Exams

During the spring semester, Juniors and Seniors who wish to take the AP Language and Composition exam and/or the AP Literature and Composition exam may take advantage of an after-school review program in the appropriate AP English test-taking strategies. These sessions will be provided by the English Department.

English Electives

060. Independent Research in English - Mi Ad

Minor Course: 3 meetings per eight-day cycle/2 credits. May be repeated for credit with teacher approval.

Open to Juniors and Seniors [by application](#) due Apr 18, 2025

IRE offers students the opportunity to conduct advanced research and writing at the college level under the guidance of English faculty. Students will develop their own topics or research questions, review the scholarly literature in the relevant discipline(s), understand and employ the research methodologies relevant to their research, and write on the research question, ultimately producing significant research essays. While much research can be carried out using resources available at Hackley, we will support students in developing relationships with scholars whose own work is relevant to the students' research.

This course requires a short application, due April 18, 2025, which will be reviewed in combination with the student's overall academic record in English and History. The application link can also be found on HOL.

172. Oral History and Storytelling - Mi Hn

Minor Course: 3 meetings per eight-day cycle/2 credits

Open to 9-12th graders.

Cross listed in History.

This course will allow students to explore how memory shapes our understanding of the past through the creation and interpretation of oral history. The first part of the course will focus on building interview skills through both hands-on practice and the study of interview-based works like podcasts and documentaries. In the latter part of the course, students will design and carry out an inquiry-based project rooted in their own original oral history research. These projects might include a documentary-style film or podcast, traditional research paper, or a journalistic or literary piece. Put another way, students will learn how to listen to people's stories in order to tell a story of their own.

152. The Vision - Mi

Minor Course: 3 meetings per eight-day cycle/2 credits

Open to grades 10-12

Cross listed in Visual Arts.

Enrollment is by [application only](#) and limited to 12 students in specific editorial roles, including editors-in-chief, managing editors, literary and art editors, a web editor, and a media/sound editor. Applicants should indicate their preferred roles and relevant experience; familiarity with InDesign is a plus but not required. **Returning students must apply by April 18th, with decisions announced by early May.**

This year-long course focuses on producing *The Vision*, Hackley's literary and art magazine, in both online and print formats. Students will solicit, evaluate, and edit submissions, manage bi-weekly online postings, and design the print edition using Adobe InDesign. They will work within a budget, meet frequent deadlines, and oversee the entire production process. Additionally, students will support audio recordings for a CD accompanying the publication.

While each student will have a primary editorial role, all will gain experience in writing, editing, layout design, multimedia integration, and publication management.

185. Sophomore Seminar in Creative Writing - Mi

Minor Course: 3 meetings per eight-day cycle/2 credits

Open to sophomores

This is a course for those who think they can't write creatively and for those who think maybe they can. Our major goal is that students become comfortable not only writing, but also talking about what they and others have written. Some topics for writing will come from the teacher, and some from the students, but there will also be free writing without a particular topic and writing in which individuals choose their own topics.

123. Creative Writing - Mi

Minor Course: 3 meetings per eight-day cycle/2 credits

Open to juniors and seniors; open to sophomores with special permission of the Department Head. Enrollment limited to two sections.

Foundations of Creative Writing students are required to keep a journal and to carry a small notebook in which they jot down thoughts, observations, overheard dialogue, or anything else that might be useful material in their creative writing. In addition, they have weekly assignments of varying lengths that involve them in a variety of writing techniques and subjects. The class meets three times a cycle to analyze and critique assignments, and to talk about writing.

126. Creative Writing II - Mi Hn

Minor Course: 3 meetings per eight-day cycle/2 credits

Prerequisite: Creative Writing 123 or special permission of Department Chair based on writing sample.

John Berryman writes in his fourteenth *Dream Song*: "Life, friends, is boring. We must not say so." Yet he does – across 385 poems – compelled by creative urgency. This course offers experienced writers a space to explore the themes, ideas, and expressions they feel driven to put on the page.

Students will refine their creative tools while developing their unique voices through reading and writing in multiple genres, including poetry, short fiction, drama, screenplays, and song

lyrics. Like an AP art studio course, students will also pursue a self-selected focus in craft. The workshop experience is central: students will submit their work for peer review, prepare feedback in advance, and engage in reflective practices to deepen their creative process.

Readings will include canonical and contemporary works, such as *The Best American Poetry* series and literary journals (*Poetry*, *American Poetry Review*, *Tin House*), along with occasional texts on writing craft (*The Writing Life*, *The Triggering Town*, *Best Words*, *Best Order*).

165. Historical and Literary Analysis via Role-Play Games - Mi

3 meetings per eight-day cycle/2 credits. Enrollment limited, priority given to students in higher grades.

Open to 9 -12 grades

Cross listed in History

This interdisciplinary course will use roleplay gaming and collaborative worldbuilding as a means to analyze literature and historical periods, write creative fiction, and foster social learning. The structure of course units will involve building a fictionalized world and characters based on literary and historical texts and films, and then roleplaying scenes and scenarios to foster ideas for individual student writing and group presentations.

In addition to role-playing, creative writing, and making presentations for class, students will learn about game system creation, reflect on metagaming, and lead games as the head storyteller – which requires public speaking and improvisation skills.

Potential game modules may include *Collaborative Worldbuilding* by Trent Hergenrader, *Vampire: The Masquerade* by White Wolf, *Dungeons and Dragons* by Wizards of the Coast, *Star Wars: Age of Rebellion* by Fantasy Flight Games, and *Dread* by The Impossible Dream, among others.

157. Foundations of Reading, Writing, and Thinking - Mi

Minor Course: 3 meetings per eight-day cycle/2 credits

Open to all Upper School students with preference to freshmen, sophomores, and juniors.

This course strengthens students' reading, writing, and critical thinking skills through practical, immediately useful strategies. By refining their ability to articulate ideas clearly,

students will enhance both self-expression and comprehension.

The course begins with introductions and theses – what to include when writing and what to analyze when reading. Students will then focus on structuring ideas within paragraphs and essays, concluding with the often-overlooked conclusion. Emphasis will be placed on close reading, diction, syntax, and tone.

As the year progresses, students will refine editing and proofreading skills, incorporating grammar and punctuation through online exercises and quizzes. In the second and third trimesters, instruction will become more individualized based on student needs. Readings will include both published and student-generated work.

166. English: Teaching Assistant - **Mi**

Meeting frequency: see description/2 credits

Instructor permission required

This course gives students interested in exploring English Education an opportunity to work with a faculty member and an English class throughout an entire school year as a Teaching Assistant. TA's participate in daily class discussions, help students with their writing and essay ideas, design presentations for their classes, and discuss their personal academic experiences in Hackley English classes. This course is intended not only to support the TAs in learning how to be better communicators and mentors, but also to provide the students enrolled in English courses with a more dynamic and enriching learning environment. Students are expected to attend half of the course meetings per cycle, in addition to meeting with their host teacher once per cycle.

968. Public Speaking - **Mi**

Cross listed in Performing Arts; see [description in Performing Arts](#).

Minor: 3 meetings per eight-day cycle/2 credits.

Open to all Upper School students.

Health and Wellness

972. 9th Grade Peer Advisory - **Mi**

Minor: 2 meetings per eight-day cycle/0 credits. No grade

Peer Advisory is an opportunity for 9th grade students to receive guidance and support from older student leaders as they transition into the Upper School. The Chair of Health Education works with eleventh and twelfth grade peer advisors as they facilitate conversations about the upper school transition as well as health and wellness.

972b. Peer Advisory Leaders - **Mi**

Minor: 3 meetings per eight-day cycle/1 credit

Open to juniors, and seniors who have previously served as Peer Advisors. (P/F Grading)

Prerequisite: Approval through an application and a teacher referral. The [application](#) for the 25-26 school year is due April 18, 2025. Decisions will be made by May 9, 2025.

The Peer Advisory Leaders program provides older students with the opportunity to mentor groups of 9th grade students. Participants must be responsible role models and committed to helping others for the good of the community. Leaders meet three times per cycle: one meeting is a leadership training session, and the other two are with their 9th-grade advisory group. *Students taking more than 5 majors and 1 minor will likely not be able to fit Peer Advisory into their schedules.* **Additional time commitment:** Peer Advisors will meet once in late August, during the week before school starts, to prepare for 9th-grade orientation and will assist with orientation later in the week.

071. Health 10 - **Mi**

Minor: 2 meetings per seven-day cycle/ 1 credit (P/F Grading)

*Required for sophomores. **All sophomores are automatically enrolled in Health 10.***

In Health 10, students learn about creating and maintaining a healthy lifestyle. Sample topics include: emotional health, stress reduction, nutrition and fitness, drug and alcohol abuse prevention, sexual education, and chronic and communicable diseases. The course will focus on developing the student's information base, and honing practical skills that encourage responsible choices to manage these and other topics.

History Department

202. World History I, 1650-1919 - **Ma**

Required for 9th graders.

This course examines world history from 1650-1919, exploring the revolutionary political, economic, and socio-cultural transformations that created the modern world. It considers how new ideas of human freedom, equality, and nationhood led to political revolutions. It investigates the causes of the Industrial Revolution, and how capitalism reshaped global networks of production and exchange. Finally, it examines how technological innovations combined with these political and economic changes to create a more interconnected world, and considers in particular how colonial encounters between Europe, Africa, and Asia led to conflict, negotiation, and the emergence of new political and cultural identities. This course also aims to help students develop and practice foundational historical reasoning skills to research, analyze, discuss, and write about the past, and coursework includes a research paper on a world history topic of the student's choice.

204. United States History to 1900 - **Ma**

Required for 10th graders.

The course treats the history of the United States from the colonial period to its emergence as a world power at the beginning of the twentieth century. It explores America's transformation from a largely homogeneous, agricultural colonial society to an industrialized, socio-economically diverse nation. Key topics include colonization, the American Revolution and the founding, westward movement, immigration, and economic growth, the Civil War, Reconstruction, and imperialism. Students will continue to build skills in inquiry, critical thinking, discussion, and writing throughout the course, and in the spring they will write a research paper based on primary and secondary sources.

206. Twentieth Century World History - **Ma Hn**

Required. May be taken in 11th or 12th grade.

This course explores the increasingly interconnected global world of the twentieth century, and the United States' changing role in world affairs. Key topics include Euro-American imperialism, World War I, the rise of authoritarian regimes in Germany and the Soviet Union,

World War II and the Holocaust, the Cold War, and decolonization and the global struggle for human rights. Students will continue to refine the historical thinking and communication skills they built in 9th and 10th grades, and they will write a research paper that offers an original interpretation of recent world history.

Major Electives

When enrollment space is limited, preference will be given to seniority.

205. Economics - **Ma** **Hn**

Open to 10th-12th graders.

Economics is the study of the choices people make about how to use scarce resources, such as time, money, and the natural world. How much time should I study for a test, and how much time should I hang out with friends? Is there a “best” way to decide? Economics tries to figure that out. What should businesses produce? What if some people can’t afford a place to live? Should the government build more schools, or more tanks, or less of everything? Exactly how bad is it to cut down a rainforest? How do we make these decisions? This course attempts to understand and answer these questions by examining the principles of micro and macroeconomics, such as supply and demand, the theory of the firm, competition/monopoly, the Classics and the Keynesians, and fiscal and monetary policy.

211. Modern European History - **Ma** **Ad**

Open to 11th and 12th graders who have met ONE of the following requirements:

- (1) have completed 20th Century World History.*
- (2) are concurrently enrolled in 20th Century World and earned an A in U.S. History.*
- (3) have taken or are concurrently enrolled in any other History elective, major or minor.*

**Rising seniors are exempted from these requirements in 2025-2026.*

This course explores the past 500 years of European history. Major topics include the Renaissance and religious wars, empire-building and revolution, Napoleon, industrialization, world wars, Communism, the EU, environmentalism, and the current uncertain moment. Key themes include the creation of modern politics, including democracy; intellectual advances and scientific innovation; the development of the modern economy; the role of wars and peace in shaping Europe and the world; cultural innovation in visual arts, literature, and music; and shifts in moral values and religious belief. By spring the course arrives at the

present day, using historical context to examine current issues like immigration, the rise of the new nationalism, prospects for a common European identity, and the challenge posed by Russia.

214. Government and Politics: The United States and the World - Ma Ad

Open to 11th and 12th graders who have met ONE of the following requirements:

- (1) have completed 20th Century World History.*
- (2) are concurrently enrolled in 20th Century World and earned an A in U.S. History.*
- (3) have taken or are concurrently enrolled in any other History elective, major or minor.*

**Rising seniors are exempted from these requirements in 2025-2026.*

This course examines government and politics from both domestic and international perspectives. In an era of diminished interest and participation, this course aims to instruct and engage students in the political process. By reading, discussing, and writing about secondary texts and current events, students will gain both a historical and contemporary point of view of the vagaries and complexities of political systems.

231. History of Media & Culture - Ma Hn

Open to 10th-12th graders.

This course examines the history of media in the United States from the emergence of the penny press in the 19th century to the rise of “new media” in the 21st century. In studying the development of newspapers, film, broadcasting, and digital media, the course’s primary focus is the historical relationship between media and democracy. How have communications technologies influenced the ways in which citizens both understood and participated in public life, and how have Americans shaped media to meet the requirements of a democratic society? Throughout the course, students will work to analyze the institutional development of communications technologies, the print, visual and digital texts they have produced, and contemporary responses to those media from both theoretical and empirical perspectives.

246. American Law - Ma Hn

Open to 10th-12th graders.

This course is designed to begin to explore how the law works and give students some actual experience in doing what lawyers and judges do. Key topics include the different sources of

law and the organization of the American court system, criminal law and juvenile justice, constitutional law, torts (civil wrongs), and evidence and trial procedure. Students will identify and discuss biases and perspectives in the legal system and closely read Supreme Court cases and interpret the decisions of the justices. They also will learn how to communicate clearly and effectively by developing trial advocacy skills, including how evidence is presented, how to conduct direct and cross-examinations, how to make objections, and how to apply laws to evidence in order to make legal arguments.

Minor Electives

220. Contemporary Issues Seminar - **Mi** **Ad**

Minor: 3 meetings per eight-day cycle/2 credits

Open to 10th-12th graders.

Contemporary Issues examines the context behind recurrent stories. This approach enables students to more skillfully analyze both events and trends as they continue to develop in the headlines. In addition to discussion, class activities include debate and student presentations. The teacher selects the topics during the first half of the course; during the latter half students propose and select issues that interest them. Class participation comprises 50 percent of the course grade, so active engagement is essential.

258. Great Books Seminar - **Mi** **Hn**

Minor: 3 meetings per eight-day cycle/2 credits

Open to 11th and 12th graders or by instructor permission

Cross listed in Classics

The purpose of the course is to expose students to classical works from antiquity through modernity. Students will have the opportunity to critically engage with texts from literature, philosophy, history, and political science to examine the nature of morality and justice, what is truth and how to we distinguish truth and falsehood, conceptions of the divine, how to best organize and design political communities, and the nature of self and consciousness. Class participation is the lifeblood of the class, with an emphasis on collaborative learning through

purposeful dialogue, structured around a series of close readings and discussions of key works. In addition to discussion, each trimester students will be required to produce a 3-5 page paper examining a theme, idea, or question raised through our readings.

262. Independent Research in History - Mi Ad

Minor: 3 meetings per eight-day cycle/2 credits. May be repeated for credit with teacher approval.

Open [by application](#) to 11th and 12th graders who have met ONE of the following requirements

(1) have taken or are concurrently enrolled in at least one other history elective.

(2) earned an A in 20th Century World History.

**Rising seniors applying to IRH may be exempted from these requirements at the department's discretion. They must still complete the application.*

IRH offers students the opportunity to conduct advanced research and writing at the college level under the guidance of History faculty. Students will develop their own topics or research questions, review the scholarly literature in the relevant discipline(s), understand and employ the research methodologies relevant to their research, and write on the research question, ultimately producing a significant research essay.

172. Oral History and Storytelling - Mi Hn

Minor: 3 meetings per eight-day cycle/2 credits

Cross listed in English. [See description in English](#)

165. Historical and Literary Analysis via Role-Play Games - Mi

3 meetings per eight-day cycle/2 credits. Enrollment limited.

Cross listed in English. See [description in English](#).

Open to 9 -12 grades.

Interdisciplinary Studies

The Department of Interdisciplinary Studies offers innovative courses that draw on knowledge, skills, materials and content that span two or more disciplines. Some courses in this department are listed solely within this department while others are cross-listed where relevant.

1010. Service Leadership for Social Impact - Mi

Minor: 3 days in an eight day cycle/2 credits

Open to students in grades 10-12

[Application Required](#) of All Students - Due **Apr 18, 2025** for returning students; later for new ones.

Service Leadership for Social Impact provides students with the opportunity to explore the origins and complexities of contemporary social issues in Westchester County to engage in thoughtful, effective, and impactful service to the community. Students will build their understanding of global social issues and how they manifest on a hyper-local level. Students will ponder questions such as: What does poverty, food insecurity, access to education, homelessness, access to healthcare, etc. look like in Westchester? Who are our neighbors affected by these social ills? Which organizations in our area are addressing these issues? How are these organizations addressing these needs? Through a series of short-term and long-term Service-Learning and Community Service projects, this course will give students the tools and skills necessary not only to engage actively with community partners but to lead with a deep sense of purpose. This year-long course is open to students in grades 10-12 and is highly recommended to students who lead service-oriented clubs in the Upper School.

1020. America's National Parks: Deserts, Forests, Mountains, and Oceans - Mi

Minor: 3 days in an eight day cycle/2 credits

[Application Required](#) of all students - Due **Apr 18, 2025** for returning students; later for new ones.

This course combines outdoor skills and an increasing knowledge of America's magnificent natural wonders. What makes a national park? How are they made? What is the process? How do we account for the fact that many parks are on the lands of Indigenous Peoples? These are not straightforward questions and there is much necessary discussion to understand the politics behind the parks and why the designation is important for

conservation. Students will learn what features determine a national park and how to explore a park in a safe and environmentally responsible way. In addition, students will learn about the delicate balance parks have with opening the land for all to see and enjoy while trying to mitigate the destructive effects overpopulation can have on some of our most beautiful and most fragile ecosystems. The course will also focus on the biology in the parks we visit as part of the required course trip during the 2026 Spring Break (Destination TBA).

732g. Yearbook Production: Hilltop - Mi

Minor: 3 meetings per eight-day cycle/2 credits

This course is designed for those who are interested in working on the yearbook. Upon joining this course, each student will be assigned to be the editor for a specific section of the yearbook. Through the completion of the yearbook pages, students will build and strengthen their organization skills and learn how best to manage yearbook page deadlines.

Electronic Publishing Courses

740. Journalism I: Intro to The Dial - Mi

Minor: 3 meetings per eight-day cycle/2 credits

This course combines the study of journalism with an emphasis on creating multimedia stories. Students will explore all aspects of the journalistic process, including photography, writing, and presenting content using electronic publishing applications for our news website. Students will learn the basics of journalistic writing, including pitching a story, conducting interviews, composing interesting leads and nut grafs, and organizing facts and supporting quotations. Students will engage in hands-on practice to develop proficiency in publishing content, including podcasts and videos on The Intro to The Dial website.

741. Journalism II: The Dial - Mi

Prerequisite: Newspaper Production I: Intro to The Dial, or permission of Department Chair.

Minor: 3 meetings per eight-day cycle/2 credits.

This course builds on the skills learned in Journalism: Intro to The Dial. This is an advanced course that continues to explore all aspects of the journalistic process that began in Journalism

I and is designed to give structure to the creation and maintenance of The Dial. Students will enhance their skills in journalistic writing; however, the emphasis is on the elements of production, including scheduling, assignments, design, layout, and visual storytelling. Requirements center around the timely completion and publication of the student news website.

742. Journalism III: The Dial Editors - Ma

Prerequisite: Journalism II: The Dial

Major: 4 meetings per eight-day cycle/3 credits (this a major that meets 4x cycle)

The course focuses on the maintenance of Hackley's award-winning student newspaper, The Dial. In addition to practicing advanced skills in journalistic writing, online publishing, podcasting, and video production, students will develop the collaborative leadership roles needed to complete each issue in an efficient and timely manner. Students are responsible for all elements of production – scheduling, assignments, mentoring, design, layout, and graphics.

152. The Vision - Mi

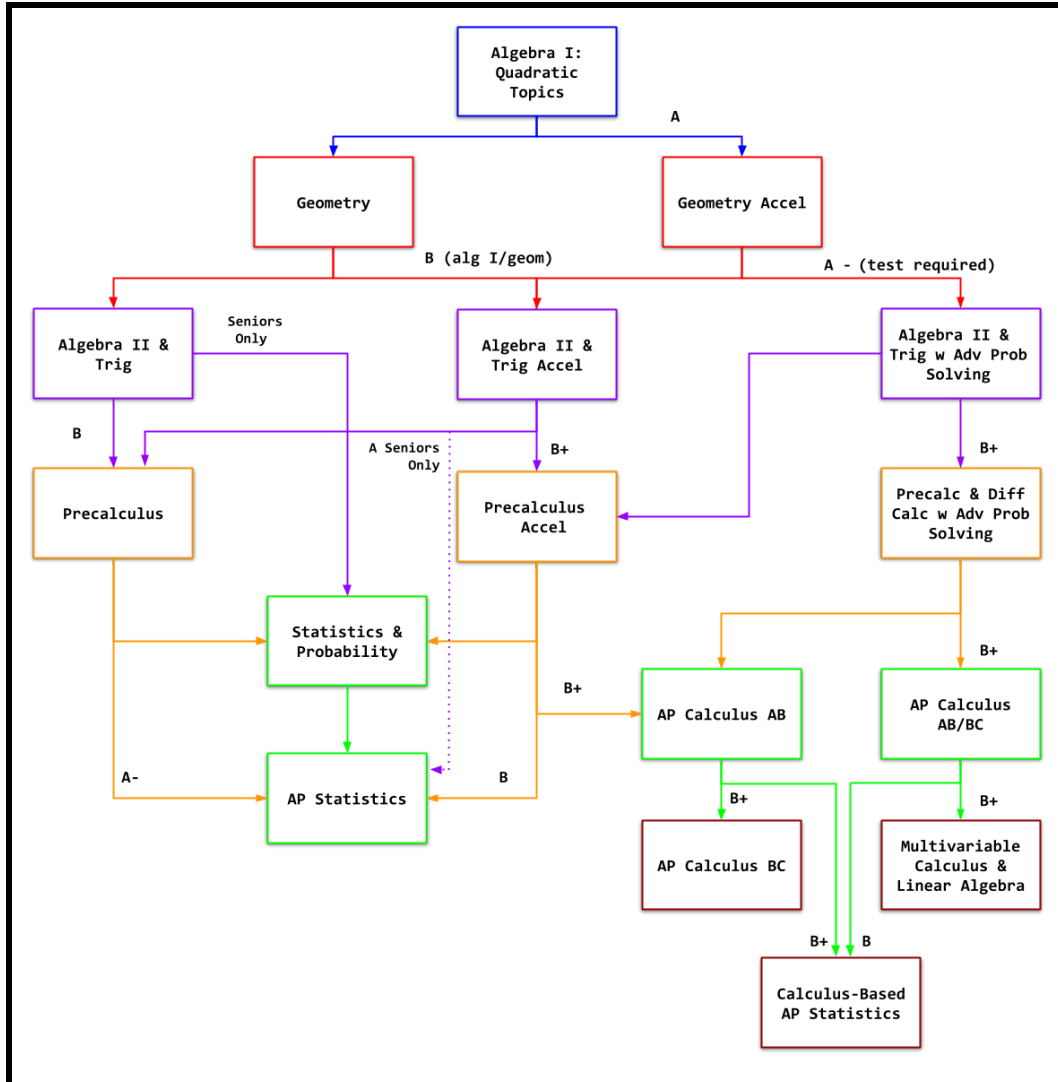
Cross listed in English and Visual Arts; see [description in English Department](#).

Minor Course: 3 meetings per eight-day cycle/2 credits.

Open to grades 10-12.

Math Department

Math Course Map (with Eligibility Grade Requirements)



301. Algebra I: Quadratic Topics - **Ma**

In this course, students build on their study of linear topics and begin to explore quadratic equations. Students quickly review the basics of simplifying algebraic expressions, solving one-variable linear equations and inequalities, and graphing linear equations. We then move on to study systems of linear equations before we tackle exponents, exponential functions, and quadratic equations. We will conclude our study with polynomials and factoring, rational equations and functions, and radicals and their relationship to geometry. The course stresses relevancy with an

emphasis on real-life applications.

302. Geometry - Ma

Prerequisite: Algebra I or the equivalent.

In this Euclidean geometry course, the main emphasis is on plane geometry. The traditional topics are covered: parallel lines and planes, congruency, parallelograms, similarity, right triangle relationships, circles, polygons, and constructions. Area and volumes are also covered. Direct and indirect proofs are taught as methods of reasoning throughout the course. Introductory statistics are taught focusing on qualitative and quantitative data, measures of center and spread, and reading and organizing data.

302a. Geometry Accelerated - Ma Hn

Prerequisite: "A" in Algebra I.

This course is designed for serious students who intend to go on to higher work in mathematics. This is a fast-paced course that requires a strong background in Algebra I skills and emphasizes rigorous problem-solving and complex geometric reasoning. The course includes an extensive coverage of Euclidean geometry, formal logic, and challenging algebraic applications such as solving quadratic and rational equations and will delve into more advanced trigonometric topics such as the laws of sines and cosines.

320. Algebra II and Trigonometry - Ma

Prerequisite: Algebra 1 and Geometry.

This course is designed to give students a solid understanding of Algebra and Trigonometry concepts and prepares students for our Pre-Calculus (366) course. This course is more project focused than our other Algebra II courses and students will have an opportunity to discover the power of mathematics in real-life modeling situations. This course does not prepare students for AP Calculus.

320a. Algebra II and Trigonometry Accelerated - **Ma** **Hn**

Prerequisite: "B" or above in Algebra I, and Geometry 302 or 302a.

Students in this course review the essentials of first-year algebra including functions and relations and algebraic and graphical solutions of linear and quadratic equations and inequalities. We move on to discuss complex numbers and exponential and logarithmic functions. The course will also explore trigonometric functions and an emphasis is placed on algebraic and graphical reasoning

320b. Algebra II and Trig with Advanced Problem Solving - **Ma** **Ad**

Prerequisite: "A" in Algebra 1 and an "A" in Geometry 302. Because of the challenging level and pace of this class, students must also sit for a readiness test in the spring. Students that sign up for this course will receive additional information about sitting for the test.

This course is designed for serious students who intend to go on to higher work in mathematics. This is a fast-paced course that requires a strong background in Algebra I skills. Students in this course quickly review and expand upon the essentials of Algebra I and develop the structure and theory of the real number system. Topics include the concepts of function and relation, algebraic and graphical solutions of linear and quadratic equations and inequalities, polynomial equations and complex numbers, conic sections, exponential and logarithmic functions, and the study of trigonometry and circular functions.

366. Pre-Calculus - **Ma**

Prerequisite: "B" or above in Alg2/Trig 320.

This course is devoted to developing a toolkit of functions and other mathematical concepts that serves as a bridge between mathematics and the world it models. The toolkit includes explicitly, implicitly, and recursively-defined functions, matrices, graph theory, probability, and statistics. Students will discover the power of these math concepts through modeling projects and lab activities that incorporate the use of graphing calculators and computer programs such as Desmos, and Google sheets, and they will present their results in formal written reports. This course does not prepare students for AP Calculus.

366a. Pre-Calculus Accelerated - Ma Hn

Prerequisite: Alg 2/Trig with Adv Prob Solving(320b), or "B+" or above in Alg 2/Trig (Accel 320a).

This course establishes a deeper knowledge of the topics covered in our Algebra II courses. It treats selected topics of algebra and trigonometry, including matrices, arithmetic and geometric sequences, mathematical induction, and the binomial expansion formula. It is also designed to provide the students with a deeper understanding of functions and to prepare students to take AP Calculus AB (328) the following year.

366b. Pre-Calc and Differential Calculus with Advanced Problem Solving - Ma Ad

Prerequisite: "B+" or above in Alg 2/Trig Adv Prob Solving (320b).

This course is designed for students who enjoy math and want to push themselves daily. The course is very rigorous and demanding and prepares students for AP Calculus AB 328 or AP Calculus AB/BC 312. We study many topics including polynomials, inequalities, functions, exponents and logarithms, trigonometry, polar coordinates, vectors and determinants, parametric equations, sequences and series, combinatorics, and probability. In addition, students will study differential calculus. Students are required to derive all formulas and there is a great emphasis on solving multi-step, multi-process problems.

330. Statistics and Probability - Ma

Prerequisite: Open only to seniors. Juniors need the permission of the Department Chair.

"Statistical thinking will one day be as necessary for efficient citizenship as the ability to read and write." -H.G. Wells

We live in the information age; raw data, graphs, rates, percentages, probabilities, averages, forecasts, and trend lines are an inescapable part of our everyday lives. This course is designed to examine how data and statistics shape our world. Students will learn the importance of collecting and studying data in real-life situations. They will explore data analysis, data production, statistical inference, and probability and, in turn, are provided with the tools to make good decisions with data.

309. AP Statistics - Ma AP

Prerequisite: Pre-Calc and Diff Calc (366b); "B" or above in PreCalc Accel (366a) ; or A- or above in Pre-Calc (366). Occasionally, rising seniors with straight A's in Alg 2/Trig Accel (320a) may be considered for AP Statistics by applying to the department chair. Open only to seniors. Juniors need the permission of the Department Chair.

This course follows the curriculum recommended by the College Board for the Statistics Advanced Placement Exam. The purpose of the course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Topics are divided into four major themes: exploratory analysis, planning a study, probability, and statistical inference. Students are required to have a calculator with graphing and statistical capabilities.

329. Calculus-Based AP Statistics - Ma AP

Prerequisite: "B+" or above in AP Calc AB (328), or "B" or better in AP Calc AB/BC (312).

In this course probability theory is used to make sense of randomness and uncertainty, and statistics is used to make intelligent judgments and informed decisions in the presence of uncertainty and variation. Calculus provides the methodological basis in both disciplines. Students will use quantitative methods to analyze data, make rational decisions under uncertainty, design experiments, and model randomness and variability in the social and natural sciences. This course is more mathematically rigorous than AP Statistics.

328. AP Calculus AB - Ma AP

Prerequisite: PreCalc and Diff Calc (366b) or a "B+" or above in Pre-Calc Accel (366a).

This course will focus on gaining a conceptual understanding of calculus and discovering a wide variety of applications in the real world. Topics will include functions, limits, differentiation, and integration and applications from engineering, physics, life sciences, and economics. All AP topics will be covered.

310. AP Calculus BC - Ma AP

Prerequisite: "B+" or above in AP Calc AB (328)

This course follows the curriculum recommended by the College Board for the Calculus BC Advanced Placement Exam. Applications of integration begun in AP Calculus AB are reviewed and additional applications including arc length and work are studied. Other topics include techniques of integration, infinite series, the calculus of polar coordinate functions, parametric equations, vector functions, improper integrals, and simple differential equations.

312. AP Calculus AB/BC - Ma AP

Prerequisite: A "B+" average in Pre-Calc and Diff Calc (366b)

This is a fast-paced course for students who wish to cover all of the topics included on both the AB and BC Advanced Placement Examinations. In order to achieve this goal, students will be required to complete a summer self-study assignment. Students will be tested on this material and then we will move on to applications of derivatives, curve sketching, techniques of integration and its applications, infinite series, the calculus of polar coordinate functions, parametric equations, vector functions, improper integrals, and simple differential equations. This course is designed for students who have a passion for mathematics and want to challenge themselves daily. Because of the material to be covered, students will need to be independent, self-motivated learners. Rising juniors should only consider this course if they wish to continue on in math beyond the BC course during their senior year.

314. Multivariable Calculus/Linear Algebra - Ma Ad

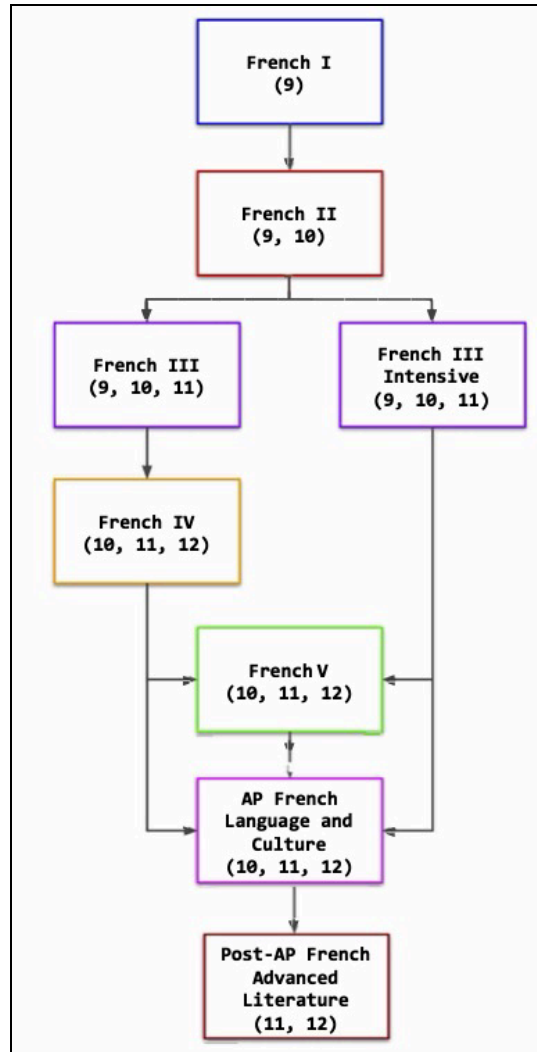
Prerequisite: B+ in AP Calculus BC (310) or AP Calculus AB/BC (312)

This course is open to students that have successfully completed BC Calculus (Math 310 or 312). The first half of this course covers vector and multivariable calculus. Topics include vectors, parametric curves, partial derivatives, double and triple integrals, and vector calculus in 2D- and 3D-space. The second half covers matrix theory and linear algebra, emphasizing topics useful in other disciplines, including systems of equations, vector spaces, determinants, and eigenvalues. Students will be required to complete a short independent study on an application of these topics. This course follows MIT syllabi with free resources available to students through MIT OpenCourseWare.

Modern Languages Department

French

Flow Chart of French Classes with Typical Grade Levels



501. French I - **Ma**

At the end of the first year, students will have acquired a broad vocabulary of around 2,000 words and expressions. They will be able to communicate original ideas, in both oral and in written form, about a variety of themes including themselves, their home, preferred activities, and academic life. Through readings and listening exercises, students will develop their pronunciation, fluency, and confidence. Culturally and pedagogically relevant texts, videos,

and resources are used to reinforce grammar, vocabulary, and all four linguistic skills.

Textbook and digital workbook: *D'accord 1* (Vista Higher Learning).

502. French II - Ma

This course is open to students who have completed French I either in one year in the Upper School or in three years in the Middle School program. The course is highly interactive and affords students endless opportunities to develop all four key communication skills. Reading and writing are practiced regularly, reinforcing grammatical constructs and basal vocabulary relevant to a variety of themes. At the end of French II students will increase their personal proficiency and be empowered to navigate many everyday situations in the language.

Textbook and digital workbook: *D'Accord 2* (Vista Higher Learning).

503. French III - Ma Hn

As in previous years, reading, conversation and composition continue to be stressed. Students build their themed vocabulary through a variety of authentic and pedagogical realia while broadening their cultural knowledge of the French speaking world. A great deal of new vocabulary and key idiomatic expressions are encountered. In addition, grammar is reviewed, and many new grammatical structures are introduced during the second and third trimesters.

Textbook and digital workbook: *D'Accord 2* (Vista Higher Learning).

503b. French III Intensive - Ma Hn

Prerequisite: "A-" in French II and recommendation of current French teacher

In addition to the above mentioned for French III, the Accelerated French III course will include more advanced cultural and historical readings as well as a greater emphasis on speaking and writing.

Textbook and workbook: *Perspectives* (Vista Higher Learning).

504. French IV - **Ma** **Hn**

This class, designed for students who wish to continue their study of French without necessarily matriculating towards the AP examination, is topic-based. Topics covered include Health and Fitness, Education, Relationships, Social Media, Travel, and Environment. The approach is multi-skill, with an emphasis on the oral use of the language and comprehension skills, both aural and reading. Written work tends to be discursive and/or imaginative by nature, giving students the chance to formulate and express their own opinions and reactions and to practice different writing styles. There is also a film component, which begins with a review of the development of French cinema and continues throughout with a number of French films, chosen for their quality and/or their relevance to topics being studied. Some time is also spent each week on grammar review.

Textbook: *D'Accord 3* (Vista Higher Learning).

506. French V - **Ma** **Hn**

Prerequisite: French IV or AP French Language, as well as recommendation of current French teacher.

Students will continue their studies of French at an advanced level focusing on the further development of interpretive and flexible oral communication skills. Students will develop their oral proficiency in the language through facilitated discussions, cooking in the target language, and a self-guided exploration of recipes. The complexity of franco-african, franco-caribbean, and franco-european cuisines will be examined through authentic and pedagogical resources. Topics will range from 17th century colonization to 21st century culinary influences, with the goal of exploring how these complex and dynamic relationships between communities and nations affect social perspectives, current events, and culinary practices in both reciprocal and conflicting ways. This course will also embrace the varied products and practices of all communities explored, inspiring a sensitive and deeper understanding of the French-speaking and culinary world. Primarily designed to develop a student's verbal communication and oral comprehension in French, this is a conversation-based course where in-class engagement and active participation are heavily weighted.

Texts and Workbook:

1. *Face-à-Face: Conversation sans Frontières*, Françoise Gillebaert.
2. Kitchen laboratory logbook or "carnet de cuisine."

507. AP French Language and Culture - Ma AP

Prerequisite: Completion of Accelerated French III or French IV with a grade of "B+" or above, as well as recommendation of the current French teacher. Students take the AP French Language and Culture exam in May.

The latest version of the AP French Language and Culture program includes language study at a high level, based around the exploration of certain prescribed themes.

Students will encounter many different kinds of French – everyday, literary, journalistic, and technical – and will develop and practice all four linguistic skills – listening, reading, speaking, and writing – via authentic activities and materials. The language's grammar and essential structures will be studied and applied in a variety of realistic situations and for a variety of purposes – simple reporting or résumé, personal response, re-formulation, persuasive speaking or writing, for example. The acquisition of strong comprehension skills and effective communication strategies are prime goals of the course.

Alongside its linguistic goals, the course will engage students in an exploration of French and Francophone culture in both contemporary and historical contexts and develop their awareness and appreciation of its manifestation via the tangible (e.g. books, music) and the intangible (e.g. laws, institutions), via practices (e.g. social interactions within a culture) and perspectives (e.g. values, attitudes). Prescribed themes include Global Challenges, Beauty and Aesthetics, Contemporary Life, Science and Technology. Materials will be drawn from a wide variety of media.

Texts: Delfosse, Kurgebov and Draggett, *Thèmes* (Vista Higher Learning) Ladd & AP French, *Preparing for the Language & Culture Examination*.

509. Post-AP Advanced French Literature - Ma Ad

Prerequisite: AP French Language. (Occasionally, rising seniors who are strong French IV students may be permitted in this course upon the recommendation of their current teacher.)

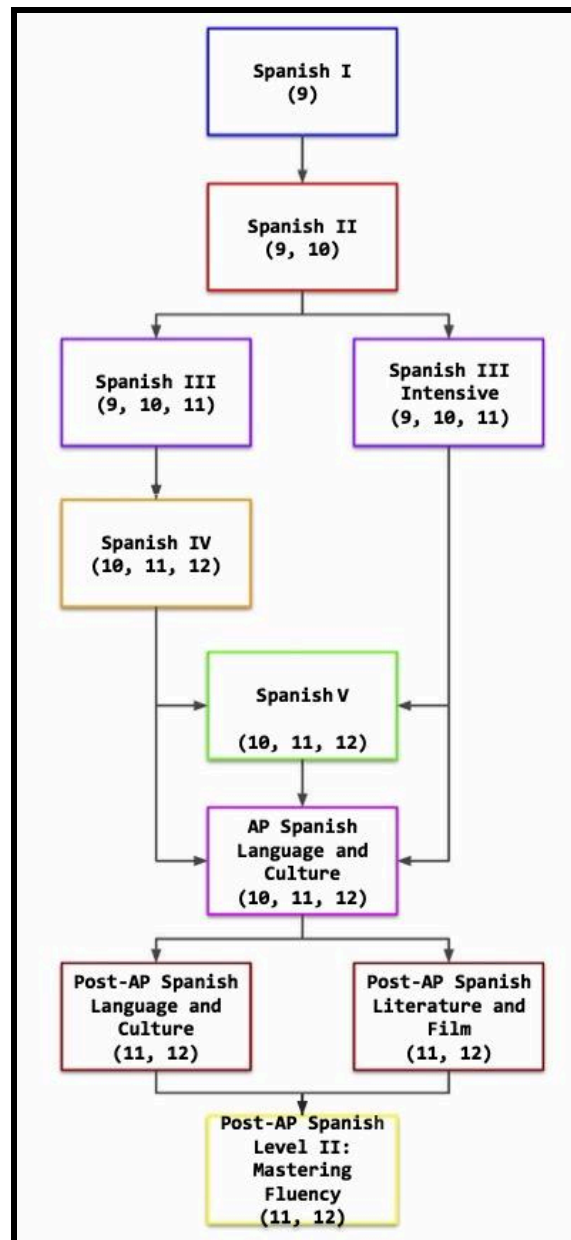
This course provides an opportunity for students to use and develop their knowledge of France and the Francophone world, through an encounter with a carefully selected set of not only literary texts, but also videos, articles, blogs, podcasts, and film. If you like to read, and to think and talk about what you read, then this is the course for you. As the course evolves students will acquire the critical vocabulary needed to discuss and to write about what they read and see.

On the literary side, it will provide a survey of French and francophone literature from the

19th century to the 21st century, covering prose, poetry and theater. Topics covered will include representations of beauty and ugliness, the 19th-century transformation of Paris and questions of national and linguistic identity in French-speaking places.

Spanish

Flow Chart of Spanish Classes with Typical Grade Levels



511. Spanish I - **Ma**

At the end of the first year, students will have mastered a vocabulary of about 2,000 words. They will be able to communicate ideas, in both oral and in written form, about such topics such as the weather, school, family, dining, sports, hobbies and travel. Through readings and

listening exercises, students will develop their passive communication skills. The cultural diversity of the Spanish speaking world is thoroughly explored in the course. Video and interactive computer programs are used to reinforce grammar, vocabulary and all four linguistic skills.

Textbook and workbook: *Descubre 1* (Vista Higher Learning).

512. Spanish II - Ma

This course is open to students who have completed a Spanish I course and covers a fairly extensive amount of grammatical concepts. As in Spanish I, students will be able to communicate their ideas in both oral and written forms, with significant emphasis on the narrative tenses, the imperative mood and the future and conditional tenses. They are exposed on a regular basis to the history and cultural components of the various Spanish speaking countries through readings and use of video and audio material. The course is highly interactive and promotes endless opportunities for students to develop their speaking and listening comprehension skills. At the end of Spanish II students will speak with greater fluency and demonstrate an overall strong command of several key topics of grammar. Students who maintain a high level of performance throughout the year and show a propensity to master the concepts with relative ease are eligible for Accelerated Spanish III, with the recommendation of the current teacher.

Textbook and workbook: *Descubre 2* (Vista Higher Learning).

Reading: *Robo en la noche* by Kristy Placido (Wayside Publishing).

513. Spanish III - Ma Hn

As in previous years, reading, conversation and composition continue to be stressed. Students build their themed vocabulary through three types of readings (historical, literary and journalistic) while broadening their cultural knowledge of the Spanish speaking world. A great deal of new vocabulary is encountered. In addition, grammar is reviewed, and several new structures (perfect tenses, continued study of the subjunctive mood) are introduced during the second and third trimesters. The texts are supplemented by video and audio material and outside readings.

Textbook and workbook: *¡Así se dice! Level 4 and Workbook and Audio Activities*.

Reading: *Esperanza* by Carol Gaab (Wayside Publishing).

513b. Spanish III Intensive - **Ma** **Hn**

Prerequisite: "A-" in Spanish II and recommendation of current Spanish teacher

In addition to the above mentioned for Spanish III, the Accelerated Spanish III course will include more advanced cultural and historical readings as well as a greater emphasis on speaking and writing.

Textbook and workbook: *Así se dice! Level 4 and Workbook and Audio Activities.*

Reading: *Esperanza* by Carol Gaab.

514. Spanish IV- **Ma** **Hn**

This class is for students who have completed their third year of Spanish and intend to put their background in the language to practical use. Students are challenged to develop their own ideas and skills as global citizens as they master linguistic principles. Daily conversations, pair activities, readings, journal entries and research projects focus on current themes pertaining to the Spanish-speaking world such as sustainability in nature, culture and economics. The goal is for students to develop fluency and ease in aural and written Spanish. Additionally, students build awareness of common pitfalls for English speakers and master the structure of the Spanish sentence so that they are ready to progress into advanced high school or college coursework.

Textbook and workbook: *Descubre 3 (Vista Higher Learning) with SuperSite Access w/vText.*

526. Spanish V - **Ma** **Hn**

Prerequisite: Spanish IV and recommendation of current Spanish teacher.

Students continue their studies of Spanish at an advanced level with special attention given to developing active communication skills. This course is appropriate for students who have completed Spanish IV. The primary objective of this course is the development of the student's communicative skills by focusing on the practical applications and functions of advanced grammatical structures. *This is a conversation-based course where in-class engagement and active participation are heavily weighted.* Further cultural and linguistic competency is fostered by a series of projects and thematic units. In this course, students will speak more fluently and with greater confidence about varied themes via extensive vocabulary expansion and fluency practice; acquire linguistic independence through better understanding of tense-sequencing and functional language; understand and communicate effectively with

native speakers despite rapid speech patterns or strong accents. Text: *Revista (Vista Higher Learning) with SuperSite Access w/vText.*

517. AP Spanish Language and Culture - Ma AP

Prerequisite: Accelerated Spanish III (with an "A-" or above) or Spanish IV (with an "A-" or above), and recommendation of current Spanish teacher. Students take the AP Spanish Language and Culture exam in May.

The AP Language course will be conducted in Spanish with very few exceptions. Students will be encouraged to practice the target language consistently and express themselves in a variety of styles, using strategies for different audiences (informal vs. formal). The vocabulary will be cyclical, presented in thematic units, and there will be vocabulary quizzes. Throughout the year, students will be expected to give two minute presentations in preparation for the verbal component of the AP exam. Additionally, students will spend time in the computer lab where they will practice the strategies for both informal speaking and formal oral presentation.

Students will do a variety of listening comprehension exercises that include short dialogues and narratives as well as selections from the BBC and CNN in Spanish. Films are used in order to enhance cultural knowledge, for exposure to varied types of pronunciations and to spark discussion of topics such as history, politics and family life.

This course also requires reading of short stories by Hispanic authors leading to subsequent class discussion and related writing assignments. Through frequent writing assignments, students will be exposed to different strategies in preparation for the informal and formal writing component of the exam.

Texts: *Temas: AP Spanish Language & Culture with SuperSite Access w/vText.*

516. Post-AP Spanish: Literature & Film - Ma Ad

Prerequisite: AP Spanish Language & Culture (with an "A-" or above).

Advanced heritage speakers may request departmental permission in lieu of prerequisite.

In this seminar-style course, we will explore seminal literary movements through individual works of literature and film of the Spanish-speaking world. Each literary movement will be accompanied by historical, artistic and cultural units that frame the literary movement in its full context and incorporate film adaptations of some of the major texts. The course will

prepare students for college-level writing and discussions of novels, short stories, poetic verse, dramatic texts and film.

Units of study will include the poetry of the Generation of '98 lamenting the end of the Spanish empire, the vibrant poetry of Modernism in the early 1920s, the world of Magic Realism in the 1960s, Afro-Cuban identity literature and the influence of American writers in the Literature of the Spanish-speaking world. The course will enable students to develop the critical tools to view and analyze literary film adaptations in order to evaluate the creative liberties that directors take when transforming works of literature into works of cinematic art.

Films: *Como agua para chocolate*, *El laberinto del fauno*, *Mar adentro*, *El hijo de la novia*, and *También la lluvia*.

519. Post-AP Spanish: Language & Culture - Ma Ad

Prerequisite: AP Spanish Language & Culture (with an "A-" or above).

This course seeks to develop further our most advanced Spanish students' ability to communicate comfortably, fluently and accurately. Through a series of thematic units of varying lengths, students will expand their knowledge of functional language and lexical groups, improve precision in written and spoken language, explore contemporary aspects of the Spanish-speaking culture and experience the practical application of Spanish through an extensive, long-term Service-Learning project in Westchester County. Our most advanced Spanish language students are given the opportunity to use the language to connect with and learn from our Spanish-speaking community while engaging in meaningful service. *This conversation-based course requires a high-level of class engagement and active participation.* The course will include such units as:

- Effective cross-cultural communication
- Historical survey of the music of the Spanish-speaking Caribbean
- Latin-American immigrant experience(s) in the United States
- Indigenous and African-diasporic influences on Spanish and Latin-American cuisine
- Contemporary issues of the Spanish-speaking world

Text: Additional materials provided by the teacher.

525. Post-AP Spanish Level II: Mastering Fluency - Mi Ad

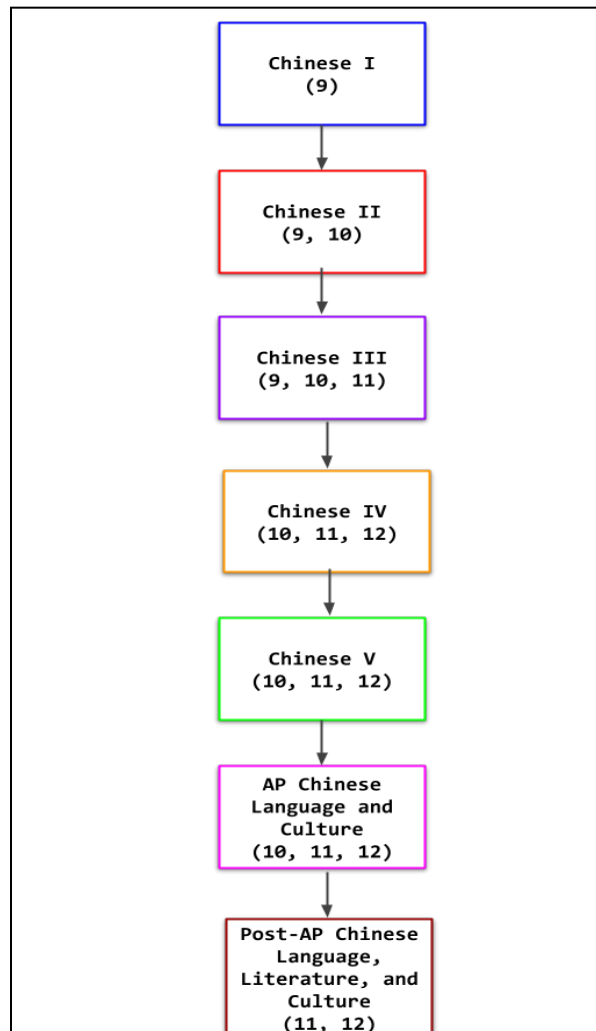
Minor: 3 meetings per eight-day cycle/2 credits.

Prerequisite: Post-AP Spanish Language and Culture or Post-AP Spanish Literature and Film.

Students continue their studies of Spanish at a superior level with special attention given to developing active communication skills. Students at the superior level are able to communicate with accuracy and fluency in order to participate fully and effectively in conversations on a variety of topics in formal and informal settings from both concrete and abstract perspectives. This course is appropriate for students who have completed Post-AP Spanish Language and Culture and/or Post-AP Spanish Literature and Film. The primary objective of this course is to help the learner develop increased accuracy and sophistication in writing and speaking in Spanish. Students will further develop their ability to express their interests, explain complex matters in detail, and provide lengthy and coherent narrations with ease, fluency, and accuracy. To this end, there will be ample writing and revising practice, with a focus on specific grammatical and lexical areas, customized to the needs of the students enrolled in the course. All writing will be based on a particular theme relating to the Spanish speaking world with a focus on film, literary texts, newspaper readings and conducting an interview. Authentic texts from across different genres of film, newspapers, fiction, songs, and essays will be used to develop all skills with emphasis on oral production, as well as intercultural and pragmatic competence.

Chinese

Flow Chart for Chinese With Typical Grade Levels



561. Chinese I - **Ma**

This introductory course offers students a comprehensive foundation in Mandarin Chinese. Emphasizing all essential language skills—listening, speaking, reading, writing, and cultural and historical understanding—students will master pronunciation patterns, tones, and essential grammar at a pace suitable for upper-school learners. Focus is placed on pinyin (the phonetic system for transcribing the Mandarin pronunciations of Chinese characters), including mastery of tones and character input methods for digital communication. Participants will also explore the building blocks of Chinese script through an introduction to radicals and measure words. The curriculum is delivered thematically, utilizing various

resources such as conversations, brief articles, cartoons, stories, and presentations to reinforce the material. The prescribed textbook, workbook, and character workbook are central to the course, enhanced by additional audio-visual and online resources.

Textbooks:

Integrated Chinese Level 1 Textbook, Simplified, 4th edition

Integrated Chinese Level 1 Workbook, Simplified, 4th edition

Integrated Chinese Level 1 Character Workbook, 4th edition

562. Chinese II - Ma

Building on the foundation set in Chinese I, students in Chinese II will enhance their conversational abilities, expanding their vocabulary and familiarity with simplified characters, alongside a deeper dive into complex grammatical patterns. The course is designed to solidify essential communication skills, allowing students to understand and create short-written passages on topics that resonate personally or are commonly encountered daily.

The curriculum integrates the learning of language with cultural themes, introducing students to Chinese idioms and cultural norms through thematic sequences from the textbook. This approach reinforces linguistic skills and immerses students in the rich tapestry of Chinese history and contemporary society. By weaving cultural understanding with language study, students develop a more rounded and meaningful connection to Mandarin, providing context that enriches their learning experience.

Textbooks:

Integrated Chinese Level 2 Textbook, Simplified, 4th edition

Integrated Chinese Level 2 Workbook, Simplified, 4th edition

Integrated Chinese Level 2 Character Workbook, Simplified, 4th edition

563. Chinese III - Ma Hn

Chinese III is a comprehensive Mandarin course that propels students into more advanced language use, refining their conversational abilities, reading, and writing skills. The curriculum incorporates complex vocabulary and grammatical structures, enabling precise articulation of thoughts with cultural depth. Students learn to appreciate the language's beauty through idioms and classical poetry, which reveal Chinese heritage's historical and cultural layers. Emphasizing practical application, the course challenges students with sophisticated

exercises, fostering a command of both linguistically proficient and culturally informed Mandarin, setting the stage for higher-level language achievement.

Textbooks:

Integrated Chinese Level 2 Textbook, Simplified, 4th edition

Integrated Chinese Level 2 Workbook, Simplified, 4th edition

Integrated Chinese Level 2 Character Workbook, Simplified, 4th edition

564. Chinese IV - Ma Hn

Chinese IV is an essential course that transitions students from Chinese III, focusing on enhancing their Mandarin proficiency to tackle advanced communication and complex writing tasks. It offers extensive preparation for the AP Chinese Language and Culture exam with targeted materials and exercises while laying the groundwork for those considering continuing into Chinese V. The curriculum includes reading short stories, situational writing, and deepening understanding of idiomatic expressions, expanding vocabulary and grammatical knowledge. Students gain a richer perspective on Chinese culture by interweaving cultural insights through proverbs and idiomatic language. The course is thoughtfully tailored to empower students to excel in the AP exam or to advance to the next level of their Mandarin education seamlessly.

Textbooks:

Integrated Chinese Level 3 Textbook, Simplified, 4th edition

Integrated Chinese Level 3 Workbook, Simplified, 4th edition

Integrated Chinese Level 3 Character Workbook, Simplified, 4th edition

566. Chinese V - Ma Hn

Chinese V is an advanced course that builds upon Chinese IV and is designed to prepare students for collegiate-level Mandarin or professional use. The curriculum emphasizes refining conversational fluency, written skills, and understanding complex grammatical concepts. Students will deepen their linguistic abilities and cultural knowledge through immersive Mandarin instruction and diverse writing exercises. While the course is vital for those planning to take AP Chinese, it also serves students aiming to achieve a high degree of language mastery for practical application in future endeavors.

Textbooks:

Integrated Chinese Level 3 Textbook, Simplified, 4th edition

567. AP Chinese Language and Culture - Ma AP

Prerequisite: Chinese IV and recommendation of current Chinese teacher. Students take the AP Chinese Language and Culture exam in May.

AP Chinese Language and Culture is a rigorous course that adheres to the College Board's curriculum. It is designed for students who have completed Chinese IV and with a recommendation from their current Chinese teacher. The pace is brisk, and instruction includes authentic materials mirroring those found on the AP Examination in Chinese Language and Culture. Students actively record their spoken responses and presentations using various media platforms, expecting to participate in the AP Chinese exam in May. The course also delves into advanced Chinese language, literature, and culture topics, providing a comprehensive and challenging academic experience for students aiming to master Mandarin at a high level.

Textbook: Barron's AP Chinese Language and Culture 4th edition

568. Post-AP Chinese Language, Literature, and Culture - Mi Ad

Minor: 3 meetings per eight-day cycle/2 credits.

This course is designed for students who have completed AP Chinese or heritage students with strong aural and verbal skills but need to improve their reading and writing. Focused entirely on advancing the Chinese language, literature, and culture, the class is conducted in Mandarin and aims to broaden vocabulary and reading comprehension through literature and multimedia. Students will immerse themselves in authentic cultural experiences to enhance all aspects of communication with regular assignments, discussions, presentations, and projects. Texts: Materials provided by teacher.

Performing Arts Department

All courses fulfill the graduation requirement in visual/performing arts except for Public Speaking 968.

Hackley School sustains vigorous and flexible music- and drama-performance programs which offer students opportunities (a) to hone their skills as actors, directors, playwrights, singers, instrumentalists, and composers, (b) to gain new experience in performing arts disciplines with which they may have been previously unfamiliar, and (c) to significantly extend their artistic and intellectual reach.

Music: Singers and instrumentalists are encouraged to enroll in an ensemble class (Band Ensembles, String Orchestra, Treble Chorus). Participants in these classes will have opportunities to perform in both the large core ensemble and smaller satellite groups, which include chamber ensembles for strings, winds, and percussion, smaller singing groups, and jazz groups. Performing groups present at least two concerts per year; numerous informal performance opportunities are available as well.

Scheduling: Most ensembles meet five times per cycle, other ensembles generally meet 3 times per cycle. Meeting time may vary depending upon the number of ensembles in which the student participates, sectional rehearsals determined by the ensemble director, and the proximity of a specific performance date. Ensemble directors will clearly summarize expectations and map out rehearsal schedules in the initial meetings of each class.

NYSSMA: Students enrolled in a Hackley ensemble class are eligible to audition for NYSSMA, which determines placement in All-County and All-State ensembles.

In addition to the three major ensemble classes, the Department also offers other classes in music performance, history, theory and mentorship. See descriptions below.

Drama and Musical Theater: Students interested in theater are encouraged to enroll in a drama or musical theater course. The Musical Theater class presents the annual school musical and the TheaterProduction class presents the annual play.

Music Courses

922d. Treble Chorus - Mi

5 meetings per eight-day cycle (see above)/2 credits

Prerequisite: Open to all students.

The Treble Chorus is a non-auditioned soprano/alto ensemble, offering opportunities to sing a variety of repertoire representative of diverse time periods and cultures. Students develop sight-reading and ensemble skills, learn vocal technique, and deepen their musicianship. Each student will have the opportunity to audition for the *a cappella* satellite group. All students will perform in formal and informal concerts throughout the year.

922b. Male a Cappella - Mi

Minor: 3 meetings per eight-day cycle/2 credits

Prerequisite: Open to all students.

The basics of *a Cappella* singing will be taught in a comfortable group setting. Students will improve performance skills, musicality, vocal technique, self-confidence, develop stage presence and learn to work as part of a team. Daily rehearsals will challenge singers while introducing a variety of repertoire. All students will perform in formal and informal concerts throughout the year.

914. String Orchestra and Chamber Ensembles - Mi

Scheduled for 5 meeting times per eight-day cycle (see above) /2 credits

Prerequisite: Open to experienced string players. Open to experienced pianists with consent of the instructor; piano students must audition, demonstrating an ability to sight-read basic chamber music repertoire.

Students enrolled in String Orchestra will have demonstrated competence on their instrument (violin, viola, violoncello, contrabass, and piano). Most students will be placed in the String Orchestra and a smaller chamber ensemble, such as a duo, trio, or quartet; such placement is based on student ability and experience. To supplement regular large-and chamber-group rehearsals, the director may designate certain rehearsal days for sectional rehearsal or individual practice. All groups study and perform music from both the traditional orchestral and chamber repertoire, as well as more contemporary works.

916. Band Ensembles: Concert Band, Jazz Orchestra, and Chamber Ensembles - Mi

Scheduled for 5 meeting times per eight-day cycle (see above)/2 credit

Prerequisite: Open to players of woodwind, brass, and percussion instruments.

Students enrolled in Band Ensembles will have demonstrated competence on a woodwind, brass, or percussion instrument. In addition to playing in the Concert Band, students will have the opportunity to join multiple satellite groups, including the Jazz Orchestra, Woodwind Quintet, and ensembles featuring woodwind, brass, and percussion instruments in various combinations. All Band Ensembles will meet on a rotating schedule determined by the director within the Band Ensembles period. Each ensemble performs at least two concerts a year. The Concert Band repertoire includes traditional concert pieces, new works for band, and pops selections. Other enrichment activities, such as trips to hear professional ensembles, are part of the curriculum.

970. Jazz Combos - Mi

Minor: 3-meetings per eight-day cycle/2 credits

Prerequisite: Open to all experienced instrumentalists.

Those students who are proficient on their instrument and who wish to study the art of jazz improvisation may register for Jazz Combos. Students are placed into a specific band based upon their particular instrument and level of ability. The harmonic and stylistic vocabulary of jazz is explored and each student learns how to apply that vocabulary to improvisation and to performing in a jazz combo. The repertoire is primarily classic jazz compositions, however more contemporary pieces are regularly performed and the students are encouraged both to suggest repertoire and to write for their band. Two concerts a year are performed and there are numerous other performance opportunities.

Drama Courses

980. Theater Project Workshop - Mi

5 meetings per eight-day cycle/2 credits

This course replaces after school rehearsals for the fall play and will culminate in a variety of performances including the Spring Showcase and the Upper School play. Students will build communication and listening skills on and off the stage. The class is designed to support our core value of “enter here to be and find a friend” by allowing students to be a part of ensemble learning and to practice leadership delegation and community involvement. Participants will learn various performance and production tools that support the production work.

966. Acting: The Craft - Mi

Minor: 3 meetings per eight-day cycle/2 credits. Open to all students.

The building blocks of acting will be introduced through improvisation, character development and analysis, script analysis, and theater history. Students will learn to think on their feet, make bold on-stage character choices through relationships and goals, strengthen their listening skills, and analyze various theater styles. They will also explore how theater can be used to support social justice initiatives. As a capstone project, students will participate in a one-act production. This class may be repeated for students seeking to gain a greater mastery of acting techniques.

978. Musical Theater Seminar - Mi

5 meetings per eight-day cycle/2 credits. Open to all students.

This class fulfills the Physical Education requirement for the year.

Hackley’s annual Musical Theater production is rehearsed and cast from the Musical Theater Seminar class. All students will perform in the annual musical. Through ensemble work, students will refine their performance techniques, including audition skills, character development, and stage presence. Scene and monologue work will deepen their understanding of dramatic interpretation, while vocal training will enhance projection, articulation, and overall confidence. This course provides a comprehensive foundation in

musical theater, fostering both artistic growth and collaboration.

968. Public Speaking - Mi

Minor: 3 meetings per eight-day cycle/2 credits

Cross Listed in Interdisciplinary Studies (Also listed in English Department)

Open to all students.

Note: This course does not satisfy the Visual/Performing Arts graduation requirement.

This course will assist students in developing better public-speaking skills through the use of voice, speech, and presentation techniques. Topics covered in this class will include presenting informative, persuasive, storytelling, demonstration, impromptu, and group speeches; dealing with stage fright; using one's voice to one's advantage; and relating to the audience. Students will be required to write their own speeches throughout the course of the year. They will also watch and analyze great inspirational speeches, as well as those of their classmates.

Physical Education - **Mi**

Students who do not participate on an interscholastic sports team during a particular season are required to participate in Physical Education class. The Physical Education program offers activities in fitness, lifetime, group sports, along with outdoor education. Classes meet for two, one-hour sessions per week (3:30-4:30). In some years, there are off-campus class options that meet once per week from 3:30-5:30 pm.

Physical Education Exemption: students in grades 10-12 can request permission to substitute outside athletic participation in lieu of Physical Education. To qualify for this exemption the student must submit a completed permission form that they will obtain from [April Williams](#), Phys. Ed. Department Chair. The Head of Physical Education grants exemptions based on the following criteria: (1) Participation must be a minimum of 2 hours per week excluding weekends, (2) must take place at an established facility or with an established organization, (3) supervision must be by a coach or certified trainer (4) students may not receive an exemption for a sport or activity that is offered or in season at Hackley, ex: cannot be on exemption for basketball during basketball season. (Parents may not fulfill this role unless employed by the facility or as a team coach.) The supervisor must submit a monthly attendance record and summary of instruction and/or competitions participated in by the student to the Head of Physical Education. Ninth grade students with exceptional qualifications will be considered for exemption. [Physical Ed Exemption FAQ can be found here.](#)

978. Musical Theater Seminar - **Mi**

This class fulfills the Physical Education requirement for the year. See course description in Performing Arts.

1075. Outdoor Adventure and Wilderness Skills - **Mi**

2 meetings per cycle. 1 credit

This class fulfills the PE Requirement. It can be taken for the whole year or for a selected trimester(s). Grading is Pass/Fail.

The class is open to all Upper School students with a 12 student cap. Preference given to seniors and juniors.

This course will take students to all corners of Hackley's campus. Throughout the course, students will learn and practice the skills that are necessary to explore the outdoors while maximizing personal and group safety as well as minimizing our impact on the environment.

The seven Leave No Trace Principles will be reinforced throughout the course and each participant will also have the opportunity to become certified in Wilderness First Aid. Other topics will include: health benefits of the outdoors, camping and hiking safety, food and water safety, navigation, the ten essentials, proper gear and how to use it, decision making and injury prevention, and how to respond in an outdoor emergency. Students can expect to be outside for much of this course and should come to every class with proper clothing and footwear for outdoor travel. This course is open to any upper school student, with or without previous outdoor experience, who would like to gain additional knowledge, skills, and appreciation for the great outdoors. This course fulfills the physical education requirement for each term.

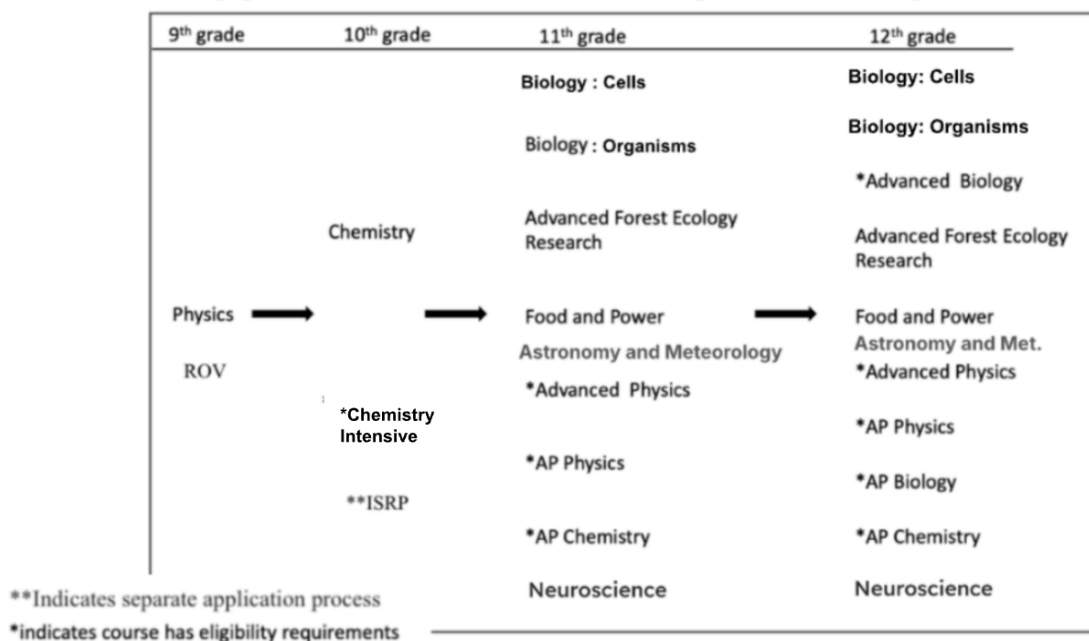
Typical PE class offerings; subject to change:

Fall	Winter	Spring
Fitness Center	Fitness Center	Fitness Center
Weight Room	Weight Room	Weight Room
Yoga	Yoga	Yoga
Fencing	Rock Climbing	Fencing
Volleyball		Pickleball/Basketball/Volleyball
Hiking		Hiking
Squash		Squash
Bowling		

Science Department

Science Tracks

Upper School Science Scope and Sequence



NOTE: Either Biology: Cells or Biology: Organisms is a requirement for graduation. Most students take one of them junior year. ISRP and minors are not included on this chart.

418. Physics - **Ma**

Required for 9th Grade.

This is an introductory course to the laws of physical science. Subjects include graphing, motion analysis, forces, momentum, work, energy, rotational mechanics, gravitation, and circuits. Problem-solving methods of teaching physics are also used. Students improve their applied quantitative skills by solving physics problems, thereby illustrating knowledge of fundamental physics concepts. The course also stresses development of laboratory skills through regularly scheduled laboratory sessions. Students are encouraged to question, observe, collect data, analyze results and reach conclusions on physical relationships. Independent creative thought and study are encouraged throughout the course.

eText: McLay, *Physics First – A 9th Grade Physics eTextbook*

408. Chemistry - **Ma**

Required for 10th grade.

Prerequisite: Physics 418

This introduces the foundational principles of chemistry, including chemical formulas and equations, states of matter, atomic structure, bonding, stoichiometry, and thermochemistry. Laboratory work is an integral part of the course as is class participation that focuses on problem-solving. **Not recommended for students planning on taking AP Chemistry.**

408a. Chemistry Intensive - **Ma** **Hn**

10th Grade – see eligibility requirements

Eligibility requirement: An “A” in Physics 418, including an “A-” minimum on the exam.

Co-requisite: Alg II and Trig with Adv. Problem Solving (320b) is preferred; Alg II and Trig Accel. (320a) is also acceptable.

This course covers the same units as Chemistry 408 but in more depth, and at a significantly faster pace. Laboratory work is integral, and additional, quantitatively challenging topics are covered. Expect daily homework assignments that focus on problem-solving and data analysis.

Recommended for students planning on taking AP Chemistry.

427. Biology: Organisms and Systems - **Ma** **Hn**

11th or 12th grade

Prerequisite: Chemistry 408 or Chemistry Intensive 408a. Open to juniors and seniors.

This course provides an in-depth exploration of human biology, with a primary focus on the structure and function of organ systems. Students will develop an understanding of the physiological mechanisms that sustain life, as well as the evolutionary principles that shape biological diversity. Evolution will serve as a unifying theme, facilitating comparative analyses between humans and other organisms within the natural world. Additionally, the course will emphasize sustainability, examining the impact of human activities on global ecosystems.

Designed to be highly interactive, the course incorporates a variety of laboratory exercises, hands-on

activities, and project-based learning experiences within each unit. Students will also engage with contemporary scientific literature through assigned readings on current events in biology. A key component of the course is the maintenance of a comprehensive laboratory journal, in which students will systematically document experimental procedures, record observations, and provide analytical responses to inquiry-based questions.

428. Biology: Cells and Cellular Mechanisms - Ma Hn

11th or 12th Grade – see prerequisites

Prerequisite: Chemistry 408 or Chemistry Intensive 408a. (Note: while any student is eligible, it is strongly recommended that students with lower than an A- in Chemistry 408 take Biology: Organisms and Systems (427).

*Open to junior and seniors. **Recommended for juniors planning to take AP Biology in senior year.***

This course introduces cell division, the molecular basis of heredity, and fundamental processes like photosynthesis and cellular respiration. We will examine the complex biochemical steps of these essential cellular functions within the larger frameworks of structure and function and evolutionary theory. Cellular chemistry is emphasized and the roles of the four major macromolecules — carbohydrates, lipids, proteins, and nucleic acids — are examined in-depth. We will explore the cell membrane structure and how it facilitates transport, osmosis, and signal transduction, and how these processes regulate human system homeostasis through organs such as the kidneys and liver. Strong reading, writing, lab, and analytical skills will be necessary for success.

Science Major Electives

424. Applied Physics - Ma Hn

Open to 11th and 12th grade students.

Prerequisites: Alg II and Trig with Adv. Problem Solving (320b) or Alg II and Trig Accel. (320a). Open to juniors and seniors. Priority given to seniors.

This is an Algebra/Trigonometry based continuation of Physics 418. The course offers an in-depth study of Fluid Mechanics, Thermal Physics, and the Mechanics and Design of Bridges. The topics and expectations of the course are comparable to those of a second semester first year college physics course. The course is unique in that significant time is spent

exploring the experimental design process, in which students create and present demonstrations and experiments. These reinforce the concepts being studied. In addition, the course features extensive problem solving both conceptually and mathematically. Significant independence and choice is given to the students in their pursuit of applications, demonstrations, and experiments that enhance the course material. Emphasis is placed on public speaking, presenting to peers and teachers alike, in both formal and informal settings. In addition, students will be required to participate in designing and presenting a lesson for the Lower School STEM Night. (Participation in this evening event, usually in March, is required.) The year will culminate with a long-term, multiphase project around the engineering, design, and building of a bridge.

455. Food and Power: The Science and Politics Behind What We Eat - Ma Hn

Open to juniors and seniors. Priority given to seniors.

Food is necessary for life, yet it is far more than a necessity. What we eat is tied to our culture, our history, our political systems, our beliefs and our available technologies. What we eat influences our own health as well as the health of the planet. This interdisciplinary course looks at food and its relationships with power, culture and the environment. We will cook, garden, and learn about the science and nutrition behind what we eat. Course work will include readings from varied sources, class discussions, hands-on activities, projects, presentations, and papers.

417. Applied Forest Ecology Research - Ma Hn

Open to juniors and seniors. Priority given to seniors.

Prerequisite: Chemistry or Chemistry Intensive.

This field intensive course will develop students' analytical and investigative abilities. Students will begin with a focus on the natural history of Hackley, including studies of tree, bird, reptile, amphibian, and mammal identification, and bird calls. Students will create a field notebook with approximately 80 plants. One of the major problems facing conservation is a lack of biological information. Long-term data collection projects benefit the community by determining how the forest structure is changing and thus how to better manage our land. Students will participate in long-term research projects in Hackley's field station. One such project is salamander abundance based on a National Parks study. Another project is a water quality analysis of two vernal pools at our field station. A third is a study of macroinvertebrate abundance in the two vernal pools using leaf packs. And a fourth major

project is a bird abundance study done in conjunction with Cornell's Project FeederWatch. Students will also take trips to areas such as Teatown to learn more from experts in the field. Students will partner with our Kindergarten classes to teach them more about the outdoors and to inspire a lifelong love of the outdoors.

411. AP Chemistry - Ma AP

Eligibility requirements: Minimum of "A-" in Chemistry Intensive (408a) with a minimum "B+" midterm exam grade. For students coming from Chemistry (408), they must have an "A" in the course with at least an "A-" midterm exam. In addition to meeting the grade requirements, students coming from Chemistry (408) must also complete bridgework and pass a proficiency exam in the spring before the end of the current school year in order to take AP Chemistry. See the department chair for more details.

All students who enroll in AP Chemistry must pick up a summer self-study assignment before the end of the current school year. Students will be tested on this material during the first week of class.

This course undertakes a rigorous quantitative study of chemical principles and prepares students for the Advanced Placement examination in chemistry. Topics covered include atomic structure, chemical bonding, states of matter, thermodynamics, equilibria, kinetics, electrochemistry and solutions. Laboratory work is heavily emphasized through weekly exercises. Students must sit for the AP Chemistry examination in May.

Text: Brown, LeMay, et. al. *Chemistry: The Central Science*

421. AP Physics C: Mechanics - Ma AP

Eligibility requirements: Minimum of "A-" in advanced level science courses, and a minimum "A-" in Precalculus Accelerated (366a) or AP Calc AB 328; or a minimum of "B+" in Pre Calc and Differential Calculus with Advanced Problem Solving (366b) or Calc AB/BC. (312).

Corequisite for Juniors: AP Calculus AB/BC or Multivariable Calculus/Linear Algebra. However, juniors co-currently taking one of these courses are strongly recommended to wait until senior year to take AP Physics C: Mechanics.

Corequisite for Seniors, one of the following: AP Calculus AB; AP Calculus BC; AP Calculus AB/BC; or Multivariable Calculus/Linear Algebra.

Open to juniors and seniors that meet the eligibility requirements. Preference given to seniors.

Students must pick up a summer self-study assignment before the end of the present school year. Students will be tested on this material during the first week of class.

This is a calculus-based, college-level physics course, with a focus on mechanics. Topics focus on the analysis of motion, which include Newton's Laws of Motion, Work and Energy, Momentum, Rotational Mechanics, Gravitation, Simple Harmonic Motion, and Air Resistance. It is especially appropriate for students planning to specialize or major in one of the physical sciences or engineering. Students cultivate their understanding of physics through classroom study and activities as well as hands-on laboratory work as they explore concepts like change, force interactions, fields, and conservation. **Students are required to sit for the May AP Physics C Mechanics exam.**

405. AP Biology - Ma AP

Eligibility Requirements: "A-" minimum in Biology: Cells (428) or "A" in Biology: OS (427). Note that 428 is a better preparation for AP Biology.

Students must pick up a summer self-study assignment before the end of the present school year and will be tested on this material during the first week of class. Students must also turn in their outline notes of the self-study topics covered during their summer review.

This is a laboratory-based course that prepares the student for the Advanced Placement examination in Biology. This course will develop students' deep conceptual understanding of a range of biological topics. It will engage them through an inquiry-based lab experience. There will be an emphasis on integrating application, reasoning, and quantitative skills. The four framing ideas for the course as delineated by the College Board are: 1) The process of evolution drives the diversity and unity of life. 2) Biological systems utilize energy and molecular building blocks to grow, reproduce and maintain homeostasis. 3) Living systems retrieve, transmit, and respond to information essential to life processes. 4) Biological systems interact, and these interactions possess complex properties.

460. Independent Science Research - Ma Ad

Three-year commitment (10-12th grades); application required.

The Independent Science Research Program at Hackley is an opportunity for students to complete

collegiate-level scientific research. In year one, students learn how to read and interpret peer-reviewed scientific literature, best practices in experimental design, data collection and analysis, and effective presentation skills. At the end of their first year, students will seek out an external internship or mentor program that aligns with their general field of interest, hone in on a specific research question, and carry out an investigation through all phases of the research process. **Most students will do the bulk of their experimental work off campus, under the guidance of a mentor, during the summers after grades 10 and 11. They must be willing to commit at least 6-8 (ideally consecutive) weeks of each summer to their research project.** The program will culminate in students submitting their work for regional and national science and engineering fairs. Students must apply and be accepted into this three-year program. We expect to accept approximately 2-5 rising sophomores each year. The [application process](#) will begin early spring of 9th grade. Students should see [Dr. Ying](#) with questions.

Science Minor Electives

434. Neuroscience - **Mi** **Hn**

Minor: 3 meetings per eight-day cycle/2 credits

Prerequisite or corequisite: either Biology: Cells and Cellular Mechanisms (427) or Biology: Organisms and Systems (428).

Embark on an exciting journey through the wonders of the brain in this neuroscience course. We'll unravel the mysteries of the nervous system, exploring its evolution, structure, and functions, from the simplest organisms to the complexities of the human brain. Through lectures, discussions, laboratory experiments, and hands-on activities, students will gain a deeper understanding of how the brain perceives the world, controls our actions, and shapes our thoughts and emotions. From the basics of neural anatomy to the complexities of memory and motivation, this course will provide a solid foundation in neuroscience while addressing relevant topics like addiction, mental health, and adolescent brain development.

444. Astronomy and Meteorology - **Mi** **Hn**

Minor: 3 meetings per eight-day cycle/2 credits

Open to all juniors and seniors. Preference given to seniors.

This course, divided into two major themes, examines some of the more awe-inspiring aspects of both astronomy and meteorology. Topics in astronomy will include the history of astronomy, the Earth, moon and solar system, comets and asteroids, stars and stellar evolution, and galaxies. The majority of the astronomy part of the course will fall from November to February to take advantage of earlier nightfall and clearer skies for stargazing. A few night labs are a required part of the course. The meteorology section of the course begins with a study of the basics of what weather is, how we study it through metrics such as temperature, humidity, barometric pressure, and how weather is different from climate. Students will examine the impact that humans may be having on both local and global weather and climate patterns. In addition, there will be a focus on specific weather phenomena such as hurricanes, tornadoes, lightning storms, floods, and droughts.

Text: McLay, E-text

448. Submersible ROV Engineering - Mi Hn

1 meeting per eight-day cycle/1 credit.

This course is open to all grades, but priority is given to rising 10-12th grade students who are currently in the Hackley Aquabots/ROV program. If space is still available, then any rising 9th graders who have requested the course will receive a separate application to determine prior robotics experience.

This course focuses on building submersible Remotely Operated Vehicles, or ROVs. Students will work in cooperative groups to research designs and functions with the purpose of creating ROVs that mimic how ROVs are currently used in ocean research, search and rescue, underwater pipeline and dam safety and maintenance, and waterway sustainability. As students build their ROVs, they will learn engineering skills and principles including learning how to electrically wire a remote control to a tool and motor system, program a remote driving system using microcontrollers, design and build a vehicle frame, and achieve neutral buoyancy. Student groups will need to research and create a budget for their supplies, create system integrated design (SID) diagrams for their electrical systems, as well as safety reports. Participation in regional (and possibly national) ROV competitions is required. Many competitions also involve extra tasks associated with their competitions beyond the building of the ROV, such as creating sales presentations and displays regarding their ROV product.

Visual Arts Department

All courses fulfill the graduation requirement in visual/performing arts.

811. Foundations of Studio Art - **Mi**

Minor: 3 meetings per eight-day cycle/2 credits Open to all students.

This class (or 3-D Sculpture & Design 822) is a prerequisite for 812, 814, 825, 833, and 842.

This course provides a comprehensive foundation to the visual arts. The objective is to excite students about the breadth of creative exploration while building technical skills and a sense of self as an artist. Students study the principles of drawing and design as they experiment with a wide variety of media and methods, including pencil, charcoal, and computer graphics. Through lectures and in-class critiques, students learn about relevant artists and acquire critical skills. Requirements include short and long-term projects, participation in class critiques, and a field trip to a Manhattan art museum.

812. Intermediate Studio Art (Minor) - **Mi Hn**

Minor: 3 meetings per eight-day cycle/2 credits

Prerequisite: Foundations of Studio Art 811, 3-D Sculpture & Design 822 or permission of the instructor

This course allows students with prior studio experience the opportunity to continue their investigation of the visual arts. Students will focus on further developing their drawing skills with a range of media, including ink, charcoal and pastel. Students will also be encouraged to sharpen their perceptual drawing skills through a series of challenging drawing exercises. In-studio critiques will help students to think and speak confidently about their own work as well as the art around them. Requirements include both short and long term art assignments. A field trip to Manhattan museums or galleries will take place in the fall.

814. Intermediate Studio Art (Major) - **Ma Hn**

5 meetings per eight-day cycle/3 credits.

Prerequisite: Foundations of Studio Art 811, 3-D Sculpture & Design 822 or permission of the instructor

This class offers qualified students the opportunity to pursue an exploration of the visual arts with intensity and focus, enabling them to investigate several two-dimensional media, while maintaining an emphasis on drawing skills and on an understanding of composition and design. As they study significant artists and art periods, they will begin to make connections between art and culture, forming an individual sense of style. Students interested in this course should have a strong desire to develop both skills and analytic abilities as they start to

see themselves as artists. Requirements include weekly sketchbook assignments, long-term projects and in- class critiques. Field trips to Manhattan museums and galleries will take place in the fall.

815. Studio Art Intensive - Ma Hn

5 meetings per eight-day cycle/3 credits.

Prerequisite: Intermediate Studio Art (Minor) 812, Intermediate Studio Art (Major) 814 or permission of the instructor

Studio Art Intensive is an opportunity for students to further develop their drawing and design skill,s as well as broaden their understanding of a range of formal visual issues. Various drawing exercises and in-depth drawing projects will deepen students' formal knowledge, sharpen their technical skills, build their confidence, and prepare them for AP Studio Art in the senior year. The course places an emphasis on keen observation, skillful mark-making, and understanding the critique as a vital tool in the creative process. Students will also be encouraged to work independently in order to develop an ability to tackle formal and technical challenges on their own, and to cultivate their own personal creative interests and vision. Various artists will be presented and discussed throughout the year. Requirements include timely completion of all in-studio assignments, thoughtful participation in class critiques, and a field trip.

822. Three-Dimensional Sculpture & Design - Mi

3 meetings per eight-day cycle/2 credits.

Open to all students.

This class (or 811) may serve as a prerequisite for 812, 814, 825, 833, and 842.

This class emphasizes the translation of two-dimensional ideas to three-dimensional forms as students explore problems in spatial organization. Using a variety of media and techniques, such as clay, wire, sheet metal, and wood, students will respond to a range of sculptural challenges designed to expand the boundaries of possibility. Emphasis is placed on developing skills in creative thinking, problem solving, drawing, and craftsmanship. Requirements include the ability to articulate concepts and ideas while utilizing the "language of art". Participation in class discussions and critiques enables the students to reflect on their work and artistic development. Students are required to attend the field trip to

the Metropolitan Museum of Art in the fall.

818. AP Studio Art - Ma AP

5 meetings per eight-day cycle/3 credits

Open to seniors only.

Prerequisite: 815 and Mr. Cice's permission.

AP Studio is intended for students who are seriously interested in the practical experience and study of art. The AP syllabus demands a high level of commitment and performance throughout the year, and is not a course for the casually interested. A rigorous schedule of portfolio "check-ins" and studio critiques will provide students with an ample body of "sustained investigation" artwork from which to assemble and submit a final portfolio to the College Board in May. A successful portfolio must exhibit a deep understanding of a full range of formal art issues, high technical proficiency in a chosen medium, and an ability to explore more personally creative concepts and directions. A major component of the course is a bi-weekly group critique during which new work is reviewed and options for future work are discussed. A number of museum/gallery excursions will take place during the year, and students will have the opportunity to participate in external exhibitions.

833. Intro. to Photography and Digital Design - Mi

3 meetings per eight-day cycle/2 credits

Open to sophomores, juniors, seniors.

Prerequisite: 811 or 822, or permission of the instructor

Students will learn the essential concepts and methods of digital photography from basic camera operation to the rules of composition and design. In the first half of the year, students will learn how to operate the camera through technical assignments and through studying the work of important and relevant photographers both historical and contemporary. Through class projects, students will learn to use the camera effectively to express their personal visual ideas. The second half of the year, students will be introduced to complex photo editing in Adobe Photoshop and basic design principles using Adobe Illustrator. Combining ideas of graphic design and photography in projects like album covers and book design, students will begin to connect these two digital art forms.

835. Intermediate Photography and Digital Design - Mi Hn

3 meetings per eight-day cycle/2 credits

Open to juniors and seniors only.

Prerequisite: 833. Intro to Photography or permission of the instructor

Students in this course will build on the technical skills they developed in 833. Intro to Photo and Digital Design to develop a more personal artistic vision. Students will start the year expanding on their technical skills with a variety of photo and design projects. Through discussions of photos in advertising, journalism and in the fine art world, students will investigate what it means to be a photographer in the age of cellphones, Photoshop and social media. We will discuss how photography can be used for documentation, persuasion and storytelling. In the second half of the year, students will connect photography with other forms of digital media and design, and choose which direction they would like to carry their photography in: advertising, fine art, book production, etc.

838. Photography and Digital Design Intensive - Ma Hn

5 meetings per eight-day cycle/3 credits.

Open to juniors and seniors only.

Prerequisite: 833. Intro to Photography and Digital Media

This course is for students who have completed Intro. To Photography, are able to use a digital camera on a sophisticated level, and want to further develop their artistic style through photography and graphic design. Throughout the year, they will produce a body of work that shows development of both technical skills and individual artistic expression. Students will also learn how both design and photography influence each other in advertising through discussions of important artists and designers, and explore these ideas further with projects like Book illustration, Album and Poster Design.

839. AP Digital Photography - Ma AP

5 meetings per eight-day cycle/3 credits.

Prerequisite: Photography and Digital Design Intensive (838), and permission from Instructor.

AP Digital Photography is an advanced-level course designed for students who are passionate about visual storytelling and digital media. Through in-depth exploration of photographic techniques, digital editing tools, and visual composition, students will develop a strong portfolio that showcases both technical skill and creative vision. Emphasis is placed on personal expression, conceptual thinking, and mastery of digital workflows using industry-standard software. This course prepares students for the AP 2D Art and Design Portfolio submission, encouraging independent work and critical analysis of contemporary photography.

842. Architecture and Design - Mi Hn

3 meetings per eight-day cycle/2 credits

Prerequisite: Foundations of Studio Art 811, or 3-D Sculpture & Design 822, or permission of the instructor

Limited enrollment. Priority given to seniors.

This course introduces students to the world of buildings and their design. Students begin the year with a variety of mechanical and schematic drawing exercises, or “puzzles,” designed to teach them how to visualize complex forms in space. Students will also become familiar with a range of architectural tools and techniques as they learn about orthographic and paraline systems, as well as how to draw plans, sections, and elevations. In the final trimester, students will have the opportunity to design and draft a full set of drawings for an original structure of their own conception, as well as construct a scaled model of their building. Throughout the year, as a means of cultivating a deeper appreciation for the role of architecture in society, the storied history of architecture will be presented and discussed. A full-day field trip into Manhattan is scheduled for the spring.

865. Introduction to Filmmaking - Mi Hn

3 meetings per eight-day cycle/2 credits

Open to juniors and seniors

Prerequisite: Intermediate Studio Art (812 or 814) or Architecture and Design 842, or special permission of the instructor

This is a production-oriented course that guides students on a step-by-step exploration of the fundamentals of filmmaking. Students get a brief introduction to cinema history, cinematography and film equipment. They will learn the basics of using video cameras to enhance a film's aesthetic quality and creative potential. Grouped in teams, they will brainstorm, storyboard, write, direct, shoot, and edit a short film of any genre (around 10 minutes) that emphasizes a strong story structure. Teams are encouraged to share responsibilities, so each student has experience with the many parts of the filmmaking process. Throughout the year, students will be introduced to professionals in the field and hear first-hand about their filmmaking experiences, and will also get feedback on their conceptual, pre-production and post-production phases of their films. With permission of the instructor, some students may work on shorter solo film projects.

152. The Vision - Mi

Cross listed in English; see [description in English Department](#) and link for application.

Minor Course: 3 meetings per eight-day cycle/2 credits.

Open to grades 10-12.