

# 2026-2027 UPPER SCHOOL COURSE CATALOG

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**WORCESTER ACADEMY**  
ACHIEVE THE HONORABLE

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## MISSION STATEMENT

Achieving the Honorable through Scholarship, Fellowship, Leadership, Craftsmanship, and Sportsmanship.

## CORE VALUES

<b>SCHOLARSHIP</b>	Pursuing knowledge and academic excellence with curiosity and rigor.
<b>FELLOWSHIP</b>	Building a supportive and inclusive community through kindness, collaboration, and mutual support.
<b>LEADERSHIP</b>	Inspiring others through action, responsibility, and vision, while leading with empathy and purpose.
<b>CRAFTSMANSHIP</b>	Approaching endeavors with dedication and pride, striving for advancement through skill, effort, and continuous improvement.
<b>SPORTSMANSHIP</b>	Competing with integrity, respect, and humility, demonstrating fairness and grace in every success and failure.

## COMMITMENT TO EQUITY AND INCLUSION

Worcester Academy celebrates the individual and collective diversity of our School community and respects, affirms, and protects the dignity and worth of each person in it. Our commitments are reflected in our mission and core values, in our curriculum, and in the policies, programs, and practices of the School. Given the long history of systems of oppression in the communities that Worcester Academy students, faculty, and alumni navigate, we must reconcile this, and prioritize thoughtful, supportive engagement of the lived experiences of individuals. Additionally, we will work to eliminate all oppressive language and practices that target any identity and lived experience.

- We strive to create accountability for diversity, equity, and inclusion and cross-cultural humility, in our learning community and beyond.
- We strive for life-long learning that elevates diverse interests and perspectives and engagement as global citizens.
- We strive for empathetic leadership, and making equitable and honorable decisions.

Approved by Board of Trustees, March 2021

## DEFINITION OF LEARNING

We believe that learning is a process of practice and reflection driven by finding purpose and relevance in the experience. This process leads a learner to grow in their ability to acquire and apply knowledge and skills.

## LEARNING PRINCIPLES

The Learning Principles inform the conditions that generally improve learning. These are informed and supported by research, based on what is known about learning, not what is believed. They serve to guide curriculum planning, instruction and assessment. They also provide a shared understanding across our community to discuss best practice, and can function as criteria for a variety of school actions such as making professional development decisions, resource selection, professional goal-setting, environment design and hiring. The Learning Principles are an important component of our Guiding Statements (Mission, Core Values, Portrait of a Learner, Equity Statement).

Learning is enhanced when students...

- find interest and meaning in what they are learning through connecting learning to context and allowing for real world application.
- recognize that effort, focus, and hard work yield growth.
- connect new information to prior knowledge and use it multiple times in varied ways over time.
- are intrinsically motivated to learn, have autonomy, and take ownership of the process.
- engage with timely, actionable, and constructive feedback prompting them to reflect on and revise their work.
- are physically and mentally healthy, prepared to learn and in an environment that is safe and inclusive. Students learn best when they belong to a community that practices cultural competence.
- collaborate. Social interactions result in deeper processing and the construction of knowledge.
- use higher level thinking skills to think critically about, reflect upon, and transfer their learning.
- are instructed utilizing a variety of teaching strategies that combine content knowledge with skills development.

## PORTRAIT OF A LEARNER

Worcester Academy believes that we are a community of learners, that learning takes place in and outside the classroom, and that it is through the act of learning that we build and create community.

All learners at Worcester Academy:

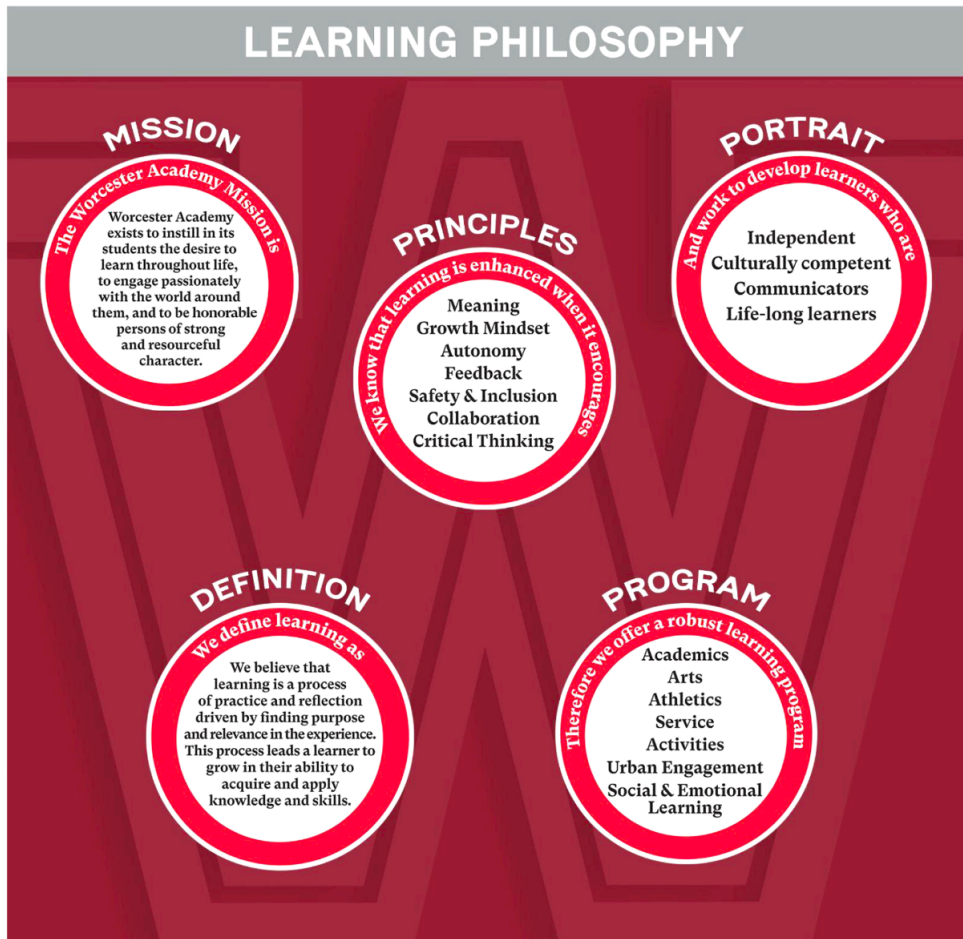
- are independent learners who ask questions, engage in critical and creative thinking, and use a variety of problem solving skills.
- embrace a growth mindset, understand their personal learning styles, and engage in lifelong learning.
- continually develop and practice the cultural competencies needed to expand their social and professional relationships in a diverse world.
- actively collaborate and engage as both leader and member of a team.
- practice effective and interactive communication; and
- apply their knowledge, skills, and competencies to the world beyond the classroom.



# WORCESTER ACADEMY

ACHIEVE THE HONORABLE

## LEARNING PHILOSOPHY



## ACADEMIC REQUIREMENTS

Each student must successfully fulfill both credit and distribution requirements listed below in grades 9-12/PG to earn a Worcester Academy diploma. The Head of School retains the right to make changes to the following regulations as need arises and may seek the input of faculty and administration in doing so.

### CREDIT AND COURSE LOAD REQUIREMENTS

Students must earn at least the following number of credits in accordance with the number of years they attend Worcester Academy:

- Four-year student	21 credits
- Three-year student	16 credits
- Two-year student	10 credits
- One-year student	5 credits

Students earn one full credit by achieving a grade of D- or higher in a full-year course. One-half credit is earned for a grade of D- or higher in each semester course.

In any given semester, students are expected to enroll in and complete at least five courses. A student must receive the approval of the Committee on Academic Standing to carry a reduced course schedule.

### DISTRIBUTION REQUIREMENTS

*Please note: Upon enrollment, any previous final high school transcripts are evaluated and credit may be applied towards distribution requirements.*

**English** – one credit in English during each of their high school years.

**World Language** – three credits must be earned by taking three consecutive years of the same language in high school.

**Mathematics** – three credits of year-long mathematics, at least through Geometry and Algebra II, during high school.

**Science** – three credits of a lab science, including one credit in Biology.

**History and Social Sciences** – three credits must be earned; one credit in grade 9, one credit in grade 10 and one credit in grade 11, including one credit in United States history.

**Visual and Performing Arts** – two credits of arts are required; of which one-half credit must be a performing arts course and one-half credit must be a visual arts course. Exceptions are made for incoming grade 11 students, whom are required to complete one credit of any art course and incoming grade 12/postgraduate students whom are required to complete one-half credit.

**Health and Wellness** – Students in Grades 9 and 10 must pass Health and Wellness.

**Junior and Senior Seminars** - Students in grade 11 must complete a College Counseling Seminar. Students in grade 12 must complete both a College Counseling Seminar and a Discovery Project Seminar.

## COURSE SELECTION - POLICY AND PROCEDURE

At Worcester Academy, we encourage students to approach their academic workload in a balanced and thoughtful manner. Our curriculum is designed to challenge students while also fostering their overall well-being, growth, and extracurricular involvement. While students may have the option to take additional courses, we strongly advise students to take 6 credit-bearing courses. Students who wish to take on a heavier workload should meet with their advisor to discuss the potential implications, including time management strategies and balancing academic demands with personal and extracurricular commitments. Students are encouraged to think long-term and prioritize a sustainable academic path that supports both current success and future goals. The aim of our curriculum is not to overload students, but to foster intellectual curiosity, critical thinking, and the development of lifelong learning skills. Success in school is not defined by the number of courses taken, but by the depth of understanding, personal growth, and the ability to manage and prioritize responsibilities effectively.

With the interests of our students in mind, we have adopted prerequisites for enrollment in many of our courses because experience and data have shown that honoring these guidelines offers our students the best opportunity for success. Students meeting the prerequisites listed for each course are eligible to enroll. If a student does not meet the prerequisites listed, they may appeal to enroll during the course selection process. All students should plan to take 6 academic courses per year. Please see your advisor for more information.

### ACADEMIC RIGOR AND BALANCE

**Quality over Quantity:** The academic rigor of our curriculum ensures that students are engaged in challenging and meaningful coursework. Taking on seven courses can lead to diminished quality of learning, as students may struggle to dedicate the time and attention required for each subject.

**Impact on Other Activities:** A workload of seven courses often limits the time available for extracurricular activities, such as sports, clubs, community service, and social connections, which are critical for developing well-rounded skills and maintaining mental and physical health.

### STUDENT WELL-BEING

**Stress and Burnout:** A heavier academic load can result in heightened stress levels, leading to burnout and a negative impact on overall well-being. It is important that students maintain a balanced approach to their schoolwork, ensuring time for rest, socialization, and personal growth.

**Support Services:** Our school offers comprehensive support systems, including SOS support through the Center for Learning, counseling, Collaborative & Cooperative Learning time. Overloading with seven courses often means these support services may be less effective due to the sheer volume of work and pressure involved. They also may be inaccessible during the school day.

### APPROVAL PROCESS

In rare instances where a student has a particular academic interest or would like to take seven courses, students may appeal in writing to the Associate Dean of Academics. Any request to take seven courses must be approved by the Upper School Head in consultation with the Associate Dean of Academics.

## **COURSE PLACEMENT FOR NEW STUDENTS - POLICY & PROCEDURES**

At the time of enrollment, all student transcripts are reviewed on an individual basis. Students are initially placed based on the grade they are entering at WA and the courses they have taken at their previous school. Most students complete a math placement test; other students submit writing samples. These are reviewed by department chairs to determine course subject and level placement. Every effort is made to accommodate student's first choice of electives.

## **ENGLISH LANGUAGE LEARNING**

At Worcester Academy, we believe that our Multilingual learners benefit from developing a strong foundation in the English language which will positively impact their success in all of their academic classes.

For this reason, we offer Seminars for Multilingual Learners and in some cases require enrollment in the courses to best support student success. Further information on our Seminar for Multilingual Learners placement policy may be requested through the Upper School Office but is based on English proficiency test scores, a writing sample, and a meeting with our International Student Advisor.

## **ADVANCED PLACEMENT POLICY**

Advanced Placement (AP) courses offer college-level curriculum to high school students. Most colleges and universities in the U.S. offer college credit, placement out of introductory courses, or both, for qualifying AP exam scores.

Every student enrolled in an AP course is expected to take the AP exam. Completion of an AP course is a sign that a student has chosen to undertake advanced coursework and the AP exam offers closure to such courses. Students who do not take the AP exam may be required to take an alternate final assessment.

AP exams are given at Worcester Academy over a two-week period in May. Students who complete an AP course receive a 0.667 point increase to their weighted grade point average.

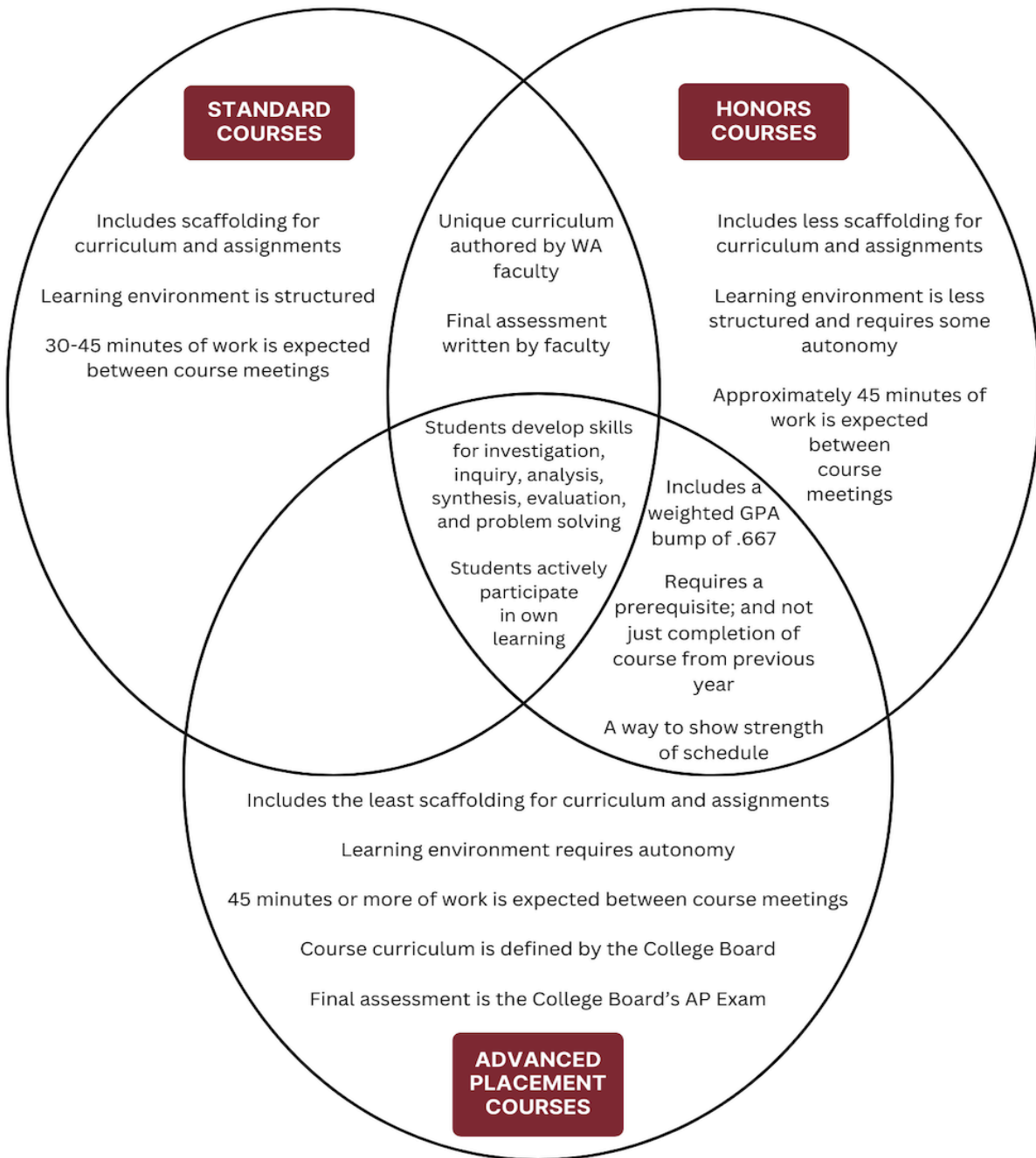
Students may not register for AP exams for courses that they are not taking at WA. Students can not take AP exams as a substitute for a prerequisite (for example AP Calculus AB). Students will also be ineligible to take the course at Worcester Academy after taking the exam, regardless of score received.

Advanced placement fee waivers are available. Please refer to the [College Board Fee Waiver Guide](#) for more information. Students and their families are encouraged to contact the AP Coordinator for more information.

## COURSE LEVELS AT WORCESTER ACADEMY

The following venn diagram is intended as a general guideline for students, parents, and college admissions officers. The individual course descriptions under each department heading can provide more explicit information regarding the nature of the courses and the types of programs available at Worcester Academy.

**All courses offered at Worcester Academy are designed as college preparatory in their scope and sequence.**



Grade Point Averages: The grade point average is based on a four-point scale and includes all subjects in which a student has received a letter grade. Worcester Academy does not rank students.

Although our courses do have articulated levels, the courses are not “tracked.” It is possible to move levels year-to-year, as students do participate in a variety of levels during their high school education.

## UPPER SCHOOL CURRICULUM CHARTS – BY DEPARTMENT

ENGLISH			
Grade 9	Grade 10	Grade 11	Grades 12 / PG
World Literature I Seminar for Multilingual Learners I	World Literature II Honors World Literature II Seminar for Multilingual Learners II	American Studies in Literature AP English Language and Composition	AP English Literature and Composition Honors World Mythology: Heroes, Gods, and Monsters What's Goin' On: Social Justice in Literature  Creative Writing Death and the City: Detective Fiction Dystopian Literature Graphic Novels and Society: Heroes, Villains and Power Into the Wild Monsters Within: Horror and Weird Fiction Mythic America: Heroes and Villains in Fiction, Film and Beyond Science Fiction You Can't Sit with Us: The Contemporary Coming-of-Age Novel

## WORLD LANGUAGE

Latin	Spanish	French
Latin I* Latin II* Latin III Honors Latin III Honors Latin Seminar AP Latin	Spanish I Spanish II Spanish III Honors Spanish III Spanish IV Honors Spanish IV Spanish V AP Spanish Language and Culture AP Spanish Literature and Culture	French I French II French III Honors French III French IV Honors French IV French V AP French Language and Culture
<p><b>*NOTE:</b> Introductory Latin classes will only run with sufficient enrollment.</p>		

## MATHEMATICS & COMPUTER SCIENCE

Foundational Courses	Advanced Courses	Algebra-Based Courses	Computer Science Courses
Algebra I Honors Algebra I Geometry Honors Geometry Algebra II Honors Algebra II	Precalculus: Functions and Trigonometry Honors Precalculus Honors Precalculus w/ Calculus Topics Calculus AP Calculus AB AP Calculus BC Honors Linear Algebra Honors Multivariable Calculus	Foundations of Precalculus Financial Algebra Statistics and Data Science AP Statistics	Introduction to Programming and Game Design AP Computer Science A Honors Software Engineering

**NOTE:** If a student is taking Algebra I in Grade 9, they may get to Calculus by Grade 12 via one of the following paths, which require approval in advance:

1. Take Algebra II and Geometry in Grade 10.
2. Take Geometry and Precalculus in Grade 11 (this path requires taking Algebra II in Grade 10).
3. Take Geometry as a summer course either before the start of grade 10 or grade 11.

## SCIENCE

Biology	Chemistry	Physics	General Science
Biology Honors Biology AP Biology Honors Genetics Honors Infection and Disease*	Chemistry Honors Chemistry AP Chemistry Honors Organic Chemistry	Physics Honors Physics AP Physics 2 AP Physics C: Mechanics AP Physics C: Electricity and Magnetism	Engineering Environmental Science Evolutionary Anthropology Forensic Science Human Anatomy Human Ecology: Exploring Worcester's Built and Natural Environments Marine Science*  AP Psychology Honors Anatomy and Physiology Honors Environmental Science

**\*NOTE:** Honors Infection and Disease and Marine Science will not be offered for the 2026-2027 academic year.

## HISTORY & SOCIAL SCIENCES

Grade 9	Grade 10	Grade 11	Electives
<p>Urban History</p>	<p>World History AP World History</p>	<p>American Studies in History AP United States History</p>	<p>Economics (Micro and Macro) Genocide and Human Rights The History and Politics of Sports Law &amp; Government Sociology in the City What's Goin' On: Social Justice in History</p> <p>AP African American Studies AP Comparative Government AP Economics (Micro and Macro) AP European History</p>

## VISUAL & PERFORMING ARTS

Visual Arts		Performing Arts Theater Arts	Performing Arts Music Arts
Exploration of the Visual Arts Drawing I Drawing II Painting I Painting II Advanced Study in Studio Art Honors Studio Art	Architecture Ceramics I Ceramics II Digital Photography, Digital Art Making I Digital Photography, Digital Art Making II* Graphic Design and Illustration* Introduction to Programming and Game Design	Stage and Story Onstage: Acting Onstage: Playwriting and Scene Study Stagecraft: Technical Theater Advanced Stagecraft: Directing Advanced Stagecraft: Design and Production	Chorus Foundations of Musical Theater Instrumental Ensemble Piano Theory Guitar Theory Introduction to Music Technology* Music Technology II* AP Music Theory*

**\*NOTE:** Digital Photography, Digital Artmaking II, Graphic Design and Illustration, Introduction to Music Technology, Music Technology II and AP Music Theory will not be offered for the 2026-2027 academic year.

**HEALTH & WELLNESS**

<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grades 12 / PG</b>
Health and Wellness 9	Health and Wellness 10	Strength and Conditioning	Strength and Conditioning

**JUNIOR & SENIOR SEMINARS**

<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grades 12 / PG</b>
		College Counseling Seminar	College Counseling Seminar Discovery Project Seminar

## COURSE DESCRIPTIONS

### ENGLISH

The English Department offers full-year courses for all students, including AP courses in English Language and Composition and English Literature and Composition.

The course of study for students includes World Literature I (in ninth grade), World Literature II (or Honors World Literature II, in tenth grade) and American Studies in Literature (or AP English Language and Composition, in eleventh grade).

Seniors and postgraduates fulfill their English requirements by either enrolling in at least one year-long English course (such as AP English Literature and Composition, Social Justice in English, or World Mythology), or at least 2 semester-long English courses.

#### **WORLD LITERATURE I**

(1\_ENG1040; 1.0 credits; Offered every year)

World Literature I focuses on developing the essential tools and skills of critical thinking and effective communication through an examination of the development of an urbanized world and its consequences for civilization. The course introduces and develops the key skills and processes of learning, interpreting, and communicating knowledge and understanding through a thematic study of literature. Writing—both analytical and creative—makes up a large portion of the year’s work. In the case of the former, emphasis on the process of writing improves each student’s approach to literary analysis and other forms of composition. Grammar and vocabulary are taught in the context of course readings and students’ own writing. Works studied include short and long fiction, drama, and poetry.

#### **SEMINAR FOR MULTILINGUAL LEARNERS I**

(1\_ENG1046; 1.0 credits; Offered every year)

Seminar for Multilingual Learners I is a language support course designed to help students succeed across academic disciplines. The course works in coordination with students’ Urban History, World Literature, and Science classes, using current assignments and course materials to build academic and conversational English skills. Students strengthen reading comprehension, academic writing, and presentation skills with support on their essays, lab reports, and class presentations. Instruction emphasizes clear, evidence based arguments, precise vocabulary, organized writing, and freewriting. Grammar is taught in context and includes academic vocabulary, word derivation, transitions, articles, prepositions, verb tense, and active versus passive voice. By developing confident and accurate academic language, students are better prepared to meet the expectations of their content courses.

## **WORLD LITERATURE II**

(1\_ENG2000; 1.0 credits; Offered every year)

**Prerequisite:** Completion of World Literature I.

World Literature II continues but intensifies the comparative literature work begun in World Literature I, reinforcing an understanding of the elements of literature while introducing ideas of synthesis and interpretation. The course presents literature thematically rather than chronologically, pairing the canonical with contemporary and international works that explore both differences and commonalities across cultures. Frequent writing assignments, both analytical and creative, emphasize objectivity, clarity, and increasing sophistication. Grammar is taught in context through students' reading and writing.

## **HONORS WORLD LITERATURE II**

(1\_ENG2500; 1.0 credits; Offered every year)

**Prerequisite:** Completion of World Literature I (A- or higher) and departmental approval.

While Honors World Literature II provides the same thematic organization and skills development as World Literature II, the curriculum engages students in deeper and more independent analysis. Honors students are expected to bring to class their own perspectives on the elements; they must be prepared to do outside research on both the individual elements of literature and the works of each genre. Because students are expected to have mastered the fundamentals of good grammar, there is limited formal instruction in this area. Advanced strategies for analyzing literature and writing essays are studied to prepare students for AP coursework.

## **SEMINAR FOR MULTILINGUAL LEARNERS II**

(1\_ENG2006; 1.0 credits; Offered every year)

Seminar for Multilingual Learners II is a language support course designed to help students succeed across academic disciplines. The course works in coordination with students' World History, World Literature, and Science classes, using current assignments and course materials to build academic and conversational English skills. Students strengthen reading comprehension, academic writing, and presentation skills through essays, lab reports, and class presentations. Instruction emphasizes clear, evidence based arguments, precise vocabulary, organized writing, and freewriting. Grammar is taught in context and includes academic vocabulary, word derivation, transitions, articles, prepositions, verb tense, and active versus passive voice. By developing confident and accurate academic language, students are better prepared to meet the expectations of their content courses.

## **AMERICAN STUDIES IN LITERATURE**

(1\_ENG3000; 1.0 credits; Offered every year)

**Prerequisite:** Completion of World Literature II.

American Studies in Literature explores a range of major thematic concerns relevant to the American identity, both past and present. The course's purpose is to offer students a foundation in and understanding of American literature and its relationship to American culture as a whole. We pursue a wide range of literature representative of both canonical and contemporary works, including the immigrant voice and the concerns of the marginalized. Frequent writing assignments, both analytical and creative, emphasize objectivity, clarity, and increasing sophistication as well as development of voice. Grammar is taught in context through students' reading and writing.

### **AP ENGLISH LANGUAGE AND COMPOSITION**

(1\_ENG3900; 1.0 credits; Offered every year)

**Prerequisite:** Completion of World Literature II (A- or higher) or Honors World Literature II (B- or higher), and departmental approval.

AP English Language and Composition primarily focuses on the rhetorical analysis of nonfiction texts, with particular emphasis on how to develop and revise evidence-based analytical and interpretive writing. Students also pursue some of the curriculum of American Studies in Literature with a collegiate-level depth of analysis developing each student's ability to read sensitively and to make critical judgments about the literature. Students engage in becoming skilled readers of works written in a variety of periods, disciplines, and rhetorical contexts, and in becoming skilled writers who compose for a variety of purposes. Both their writing and reading make students aware of the interactions between the writer's purposes, audience expectations, and subjects, as well as the way conventions and the resources of language contribute to effectiveness in writing. This course prepares students for the AP English Language and Composition Exam.

### **AP ENGLISH LITERATURE AND COMPOSITION**

(1\_ENG4900; 1.0 credits; Offered every year)

**Prerequisite:** Completion of American Studies in Literature (A- or higher) or AP English Language and Composition (B- or higher), and departmental approval.

AP English Literature and Composition is an intensive, full-year study of a wide variety of genres and periods, the major aim of which is to enable students to become readers and writers who gain success at the college level. In the course, students attempt to move beyond analytic writing towards true synthesis. There is explicit preparation for the AP examination, but the course is more truly emulative of introductory college literature seminars. Course readings include international authors and aim to connect the texts to American and world literature studied in previous English courses. The course is designed to engage students in the critical analysis of complex literature and to deepen their understanding of how writers use language. Writing assignments include close reading, textual comparison, research, and some evaluative essays. This course prepares students for the AP English Literature and Composition Exam.

### **HONORS WORLD MYTHOLOGY: HEROES, GODS, AND MONSTERS**

(1\_ENG5064; 1.0 credits; Offered every year)

**Prerequisite:** Completion of American Studies in Literature or World Literature II (A- or higher) or completion of AP English Language and Composition or Honors World Literature II (B- or higher).

Perhaps more than any other creative human pursuit, mythology is a force that unites us. Every culture on Earth has a hauntingly similar trove of ancient stories: the creation of the cosmos, the division of order from chaos, the origin and purpose of humankind, the exploits of gods and heroes, the end of all things, and—sometimes—the rebirth of the universe itself. But what is behind these ancient tales? Some have been passed down for a thousand generations ... and some, arguably, for much longer than that! In this course, we will compare the sacred texts, stories, and tales of adventure from ancient cultures that include (but are not limited to) the ancient Mediterranean, the Middle East, West and North Africa, India, China, Japan, Polynesia, Central and North America, and Scandinavia. There is also space built into the course for students to do an in-depth exploration of a culture that may be significant to their own identity.

### **WHAT'S GOIN' ON: SOCIAL JUSTICE IN LITERATURE**

(1\_ENG4005; 1.0 credits; Offered every year)

**Prerequisite:** Completion of or concurrent enrollment in American Studies in Literature or AP English Language and Composition.

**NOTE:** This course is cross-curricular. Students must elect to enroll into this course for either English or History/Social Science credit.

"All men are created equal." When Thomas Jefferson penned those words, he was—along with a majority of the Founding Fathers—an owner of enslaved human beings. The original U.S. Constitution gave voting rights only to White men who owned property. The poor and people of color were not deemed worthy of such rights; women were not even a consideration. Black Americans counted as three-fifths of a person for purposes of taxation and representation. How does this history set the foundation for the structural inequalities that persist to this day? Is America really the "land of the free" if liberty and justice are not guaranteed? How are individuals complicit in systems of inequality, and what can we do about it? What is the nature of resistance and activism? Is social justice truly attainable? How does literature explore these themes and ideas? How can literature be a critique of society? Through an in-depth historical and literary exploration of identity, power, and privilege, students will grapple with these questions and relate them to current issues in our society. By the end of the year, students will be better informed about social justice and its relevance in their own lives and be prepared to act as advocates for social justice in society.

### **CREATIVE WRITING**

(1\_ENG5012; 0.5 credits; Offered every year)

**Prerequisite:** Completion of or concurrent enrollment in American Studies in Literature or AP English Language and Composition.

Creative Writing is designed to enliven students' creative faculties through writing original poetry and short fiction. We call upon the conventions of the short story and poetry taught in prerequisite literature courses along with the exploration of each student's unique style to nurture and hone the skills of observation, analysis, and word selection in this process. Learning is facilitated through numerous writing assignments, readings, and occasional presentations. The workshop design allows a safe and productive space for students to share and support one another's creative pursuits. Students are also encouraged to submit work to *Lance*, Worcester Academy's creative writing publication.

### **DEATH AND THE CITY: DETECTIVE FICTION**

(1\_ENG5015; 0.5 credits; Offered every year)

**Prerequisite:** Completion of or concurrent enrollment in American Studies in Literature or AP English Language and Composition.

The best-known and most enduring figures of the mystery genre are detectives, from Poe's Dupin in Paris to Doyle's Sherlock Holmes in London, and—across the Atlantic—from Raymond Chandler's Los Angeles to Chester Himes's Harlem. Reflecting a reliance on rationality and physicality, the detective story can be used to address broad social, political, and psychological issues specific to cities. How do the portrayals and investigations of crime in these settings reveal to us the concerns of the urban environment? What are the particular relationships between crime and cities, and how can they be resolved on a scale larger than apprehending the perpetrators? This course examines literature that

explores potential answers to these questions through the iconic portrayal of both detectives and their cities.

### **DYSTOPIAN LITERATURE**

(1\_ENG5020; 0.5 credits; Offered every year)

**Prerequisite:** Completion of or concurrent enrollment in American Studies in Literature or AP English Language and Composition.

In this course, students will immerse themselves in the world of dystopian fiction, exploring gripping themes such as surveillance, social inequality, environmental collapse, and government control. Students will draw connections between these fictional worlds and pressing real-world issues through novels and short stories, exploring society's challenges. Engaging in class discussions and lively debates will encourage students to think critically about ethics, power structures, and their role in shaping a better future. By the end of the course, students will not only understand the genre's impact; they will develop the tools to actively engage with the world around them.

### **GRAPHIC NOVELS AND SOCIETY: HEROES, VILLAINS AND POWER**

(1\_ENG5077; 0.5 credits; Offered every year)

**Prerequisite:** Completion of or concurrent enrollment in American Studies in Literature or AP English Language and Composition.

This course examines how graphic novels blend textual and visual storytelling to address issues of gender, race, and politics in contemporary society. After reading selections from Scott McCloud's *Understanding Comics*, we will explore comics and their use of visual iconography as a medium for social critique. Emphasis will be placed on analyzing the relationship between comic art and written text to discover how artistic elements like panel composition, color scheme, and character depiction reinforce or subvert more traditional literary themes. Through close readings of *Batman: Year One*, *Watchmen*, and *V for Vendetta*, we will uncover the ways in which these narratives address topics like feminism, identity, authoritarianism, and revolution. Writing and creative assignments will develop analytical skills and foster the integration of visual and literary analysis.

### **INTO THE WILD**

(1\_ENG5018; 0.5 credits; Offered every year)

**Prerequisite:** Completion of or concurrent enrollment in American Studies in Literature or AP English Language and Composition.

Since Daniel Boone blazed the Wilderness Road in the Appalachians, since Lewis and Clark's expedition to the Pacific Coast, Western man has felt the call of the wild on this continent. Why do we feel this summons? What is our relationship to the wilderness, to the environment in general? We begin to examine these questions through selected fiction from authors such as Jack London, William Faulkner, and Leslie Marmon Silko, as well as nature writing by Edward Abbey and Gretel Ehrlich, among others. While our exploration of man's relation to environment is foremost a literary one, it is personal, practical, and philosophic in nature. To enhance our reading experience, we take a few of our own forays into the wilder regions of central Massachusetts and southern New Hampshire. We also read up on contemporary environmental issues. Finally, we also dabble in the philosophies of phenomenology and deep ecology to enrich the nature of our readings, discussions, and hikes. The wild is calling. Are you ready?

### **MONSTERS WITHIN: HORROR AND WEIRD FICTION**

(1\_ENG5073; 0.5 credits; Offered every year)

**Prerequisite:** Completion of or concurrent enrollment in American Studies in Literature or AP English Language and Composition.

Monsters have been with us since the beginning: remorseless beasts haunt our earliest myths; dark terrors have helped to shape religions; in our private lives, incomprehensible terrors stalk us from childhood to the grave. And yet we seem to need these monsters, the multitude of things that go bump in the night. This course explores our fascination with and even our reliance on the monsters that are so necessary to the human psyche. Studying literature from Poe to Peele, we will address the origin of these complex genres, but we will also focus on how horror and weird fiction have been reshaped dramatically as historically marginalized voices redefine these genres and their places in social commentary.

### **MYTHIC AMERICA: HEROES AND VILLAINS IN FICTION, FILM AND BEYOND**

(1\_ENG5068; 0.5 credits; Offered every year)

**Prerequisite:** Completion of or concurrent enrollment in American Studies in Literature or AP English Language and Composition.

The nameless gunslinger on the open prairie; the bullet-hard detective in a gritty urban bar; the big city gangster with a heart of gold; the cop with authority issues and a vigilante streak ... These American hero tropes of literature and film are the foundations upon which the so-called "American Identity" is built. However, they are the inventions of a specific demographic, meant to provide "official" parameters of what is — and isn't — "American." This country's story is a complicated narrative of so many perspectives that defining the American Dream or American identity is practically impossible. In Mythic America, we study a cross-section of these voices, each fighting to be heard above the din. Our materials are diverse: we study the literature of immigrants, the marginalized, and those treated as foreigners in their own land; we discuss art, novels, and film as vehicles for cultural change; and we consider the power of music—especially rap and hip-hop since 1986—on the MTV generation and its descendants.

### **SCIENCE FICTION**

(1\_ENG5044; 0.5 credits; Offered every year)

**Prerequisite:** Completion of or concurrent enrollment in American Studies in Literature or AP English Language and Composition.

Science Fiction is designed to increase students' knowledge of literature through science fiction. It explores novels and short fiction that depict our future world, its visionary scientific endeavors, and the conflicts between humans, aliens, and technology. Students study the history, contemporary trends, and relevant issues in Science Fiction, including dystopia vs. utopia, artificial intelligence, theories concerning technology, cloning, and physical science, human psychology in a futuristic environment, and Alternate Reality literature.

## **YOU CAN'T SIT WITH US: THE CONTEMPORARY COMING-OF-AGE NOVEL**

(1\_ENG5062; 0.5 credits; Offered every year)

**Prerequisite:** Completion of or concurrent enrollment in American Studies in Literature or AP English Language and Composition.

Life moves pretty fast. If you don't stop and take a look around once in a while, you could miss it. Coming-of-age means, like, being a kid, growing up, and dealing with drama, like when your BFF gossips about you, or when you get ghosted by your crush or whatever. Throughout the course, we'll read and write about coming-of-age narratives in literature, film, and your own life. You'll get to examine the trials and tribulations of nerds, weirdos, outsiders, mean girls, and yes, even the jocks in contemporary classics like *The Perks of Being a Wallflower*, *Everything Everything*, *Ferris Bueller's Day Off*, and *Mean Girls*, in addition to a host of short stories, and poems. You'll also be reading relevant articles from the likes of *Teen Vogue*, *Esquire*, and even *The Onion* and *McSweeney's*. While you explore and discuss these texts, you'll simultaneously have the opportunity to tell and reflect on your own stories (and maybe even get that college essay written if you didn't do it over the summer, slacker). As you gauge your own journey and those of the characters in these novels, you'll be confronting as a classroom community the big issues in our schools today—issues like discrimination on the basis of gender, race, physical ability, and socioeconomic status, and you'll work together to find ways to be a force for good and a force for change in your school and the schools of your future.

## WORLD LANGUAGE

The World Language Department offers the study of languages from beginner to AP. The course of study includes three years of study of the same language. To fulfill this requirement, three credits must be earned by taking three consecutive years of the same language in high school.

International students from countries whose primary language is not English are waived from the World Language requirement.

Regardless of the requirement, four years of study is strongly encouraged.

### LATIN

#### LATIN I

(2\_LAT1020; 1.0 credits; Offered every year)

**NOTE:** Introductory Latin classes will only run with sufficient enrollment.

Latin I presents a traditional approach to the fundamentals of the Latin language. The first three declensions of nouns and adjectives and all six verb tenses in both the active and passive voice are introduced with a view toward mastery. Historical events, myths, and legends supply the topics for both English and Latin readings. Emphasis is placed on knowing all forms and grammar and, through the topics mentioned, understanding the culture of Roman civilization. Weekly quizzes on vocabulary, word forms, and sentence structure prepare students for the cumulative tests.

#### LATIN II

(2\_LAT2020; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Latin I.

**NOTE:** Introductory Latin classes will only run with sufficient enrollment.

Latin II is a continuation of language study for students who began Latin I in the Upper School or equivalent. It develops the basic skills met in Level I and introduces more complex grammatical patterns, such as Latin pronouns, infinitives, and the multiple uses of the passive voice. Roman culture—history, myth, art, and architecture—provides the basis for readings, while Latin works, untouched in the original, are studied. Reading Latin is introduced early and becomes a constant activity for practice and mastery.

#### LATIN III

(2\_LAT3020; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Latin II.

Latin III begins the study of Latin literature through a survey of Roman authors and literary genres, after completing and reviewing Latin grammar and forms. Pliny and Cicero are core authors in the fall, and Catullus and Horace in the spring. Students master advanced grammar structures, literary genres and styles, and authentic cultural selections. Reading and writing become more sophisticated and receive greater emphasis in this course. Frequent quizzes and summary tests are the basis of the performance evaluation, as well as written assignments and classroom participation.

### **HONORS LATIN III**

(2\_LAT3520; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Latin II (A- or higher) and departmental approval.

Honors Latin III includes readings such as influential authors as Cicero, Seneca, Horace, Catullus, Ovid, and Virgil. Students are trained in sight-reading, analysis, and interpretation of Latin literature in essential literary, historical, and cultural contexts and scanning and recitation of Latin verse.

### **HONORS LATIN SEMINAR**

(2\_LAT4540; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Latin III (A- or higher) or Honors Latin III (B+ or higher) or AP Latin and departmental approval.

Honors Latin Seminar is a project-based course. It begins with selections from Seneca's *Epistolae* and continues in the second semester with Virgil's *Eclogues*. Other authors (e. g. Horace, Martial, Ovid) complement these core texts. We review Latin grammar as necessary in this rigorous reading and research course. Our projects, based upon the early printed Latin and English books held at local and regional university libraries (e. g. UMASS, Amherst, Harvard), pursue the classical traditions of the Renaissance in England to find and explore the presence and influence of Roman literature, criticism, and art.

### **AP LATIN**

(2\_LAT4920; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Honors Latin Seminar (B+ or higher) or Honors Latin III (A- or higher) and departmental approval.

AP Latin instills a deep and demonstrable understanding of extensive selections of both Vergil's *Aeneid* and Caesar's *De bello Gallico*. A literal translation is the key to these two great and vastly influential works. In addition, students must demonstrate competencies in text explication and interpretation; identify the historical, mythical, or literary context of appreciable excerpts, specific words, and Latin phrases within those same contexts; and identify modes of expression, imagery, figures of speech, sound effects, metrical effects, and historical and literary contexts and traditions. This course prepares students for the AP Latin Exam.

## SPANISH

### SPANISH I

(2\_SPA1030; 1.0 credits; Offered every year)

Spanish I is designed for students in the Upper School with no prior Spanish experience or for students with some prior coursework who need further development. The course includes thematic vocabulary units, basic grammar structures, and cultural topics. Equal attention is given to the four language skills: reading, writing, listening, and speaking. Quizzes, oral activities, chapter tests, projects, written assignments, and classroom participation are used to evaluate students. Students experience a variety of learning modalities (presentational, interpersonal, and interpretive) at various times during the year through projects and long-term assignments. Of paramount importance is that students experience the richness of Hispanic cultures through exposure to authentic music, literature, cinema, and cuisine, and opportunities to interact with native speakers.

### SPANISH II

(2\_SPA2030; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Spanish I.

Spanish II, a second-year course, includes thematic vocabulary units, basic to intermediate grammar structures, and cultural topics to enhance cultural understanding and language competency. Equal attention is given to the four language skills: reading, writing, listening, and speaking. Quizzes, oral activities such as skits and presentations, unit tests, projects, written and oral assignments, and classroom participation evaluate students. Students are expected to use Spanish in their classroom interactions.

### SPANISH III

(2\_SPA3030; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Spanish II.

Spanish III is for students who have successfully completed Spanish II and wish to continue improving their communicative skills. The course includes cultural readings, associated vocabulary, conversation, and intermediate to advanced grammar structures. Attention is given to the four language skills: speaking, listening, reading, and writing. Students are evaluated by quizzes, oral assessments, unit tests, written assignments, and integrated projects. Frequent classroom participation in the target language is also an essential component.

### HONORS SPANISH III

(2\_SPA3530; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Spanish II (A- or higher) and departmental approval.

At the Honors level, students refine their competence in the four skills needed to learn a world language and begin literary analysis. Honors Spanish III is conducted entirely in Spanish, and participation is required. There are frequent quizzes (and less frequent tests), oral work, and writing assignments. Students analyze short stories and poems. An Honors course demands a great deal of personal responsibility and determination, as students are expected to review basic materials outside the classroom so that class discussions can focus on cultural/literary analysis.

### **SPANISH IV**

(2\_SPA4030; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Spanish III

Spanish IV is conducted entirely in Spanish. Through film and research, students examine, discuss, and explore cultural facets using technology and traditional redactions. Along with cultural study, students refine their interpretive and productive skills through an intensive survey of the major components of syntax. Heavy emphasis is placed on interpersonal, interpretive, and presentational communication. Major and minor assessments, daily participation, and research make up the grade. Most students enrolled in Spanish IV continue to Spanish V the following year.

### **HONORS SPANISH IV**

(2\_SPA4530; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Spanish III (A- or higher) or Honors Spanish III (B+ or higher) and departmental approval.

Honors Spanish IV, taught entirely in Spanish, is designed to perfect students' competence in all modes of expression and introduce them to the Spanish-speaking world's literature, history, and culture through short stories, poetry, and drama. Students increase their understanding of formal and informal speech, improve their spoken fluency by expressing their ideas and beliefs entirely in Spanish, and advance their writing ability through projects and compositions based on readings and class discussions. The course seeks refinement in interpersonal, interpretive, and presentational communication. The use of technology, film, and additional readings enhance the content of the course. Students are expected to communicate entirely in Spanish with peers and instructor. This course prepares students to take AP Spanish Language and Culture.

### **SPANISH V**

(2\_SPA4040; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Spanish IV

Spanish V, conducted entirely in Spanish, is for those wishing to continue Spanish studies without expecting AP preparation. Through film and research using technology and traditional redactions, students examine, discuss, and explore cultural facets. Along with cultural study, students refine their interpretive and productive skills through an intensive survey of the major components of syntax. Heavy emphasis is placed on interpersonal, interpretive, and presentational communication. Major and minor assessments, daily participation, and research make up the grade.

**AP SPANISH LANGUAGE AND CULTURE**

(2\_SPA4931; Grades 12/PG; Full Year Course)

**Prerequisite:** Completion of Spanish IV (A- or higher) or Honors Spanish IV (B+ or higher) and departmental approval.

AP Spanish Language and Culture is an immersion course equivalent to an intermediate-level Spanish college course. Students will apply interpretive, interpersonal, and presentational skills to real-life scenarios. Emphasis will be placed on cultural awareness, communication strategies, language control, and vocabulary usage. Evaluation of progress is based on a variety of assessments, including essays, oral and written quizzes and tests, as well as individual and collaborative research projects and oral presentations. Students will be ready to take the AP exam through contact vocabulary acquisition and the polishing of the modalities of speaking, listening, writing, and reading.

**AP SPANISH LITERATURE AND CULTURE**

(2\_SPA4935; 1.0 credits; Offered every year)

**Prerequisite:** Completion of AP Spanish Language & Culture and departmental approval.

AP Spanish Literature and Culture, conducted entirely in Spanish, continues the study of works begun the previous year in Honors Spanish IV to prepare for the AP Spanish Literature and Culture Exam. Students enter the course with a foundation in Spanish literature, history, and literary analysis that informs and enhances comprehension. Students are expected to perfect their presentational, interpretive, and interpersonal communication modalities as they read, while exploring historical, thematic, philosophical, and aesthetic themes in Europe and Latin America. Students leave the course prepared for the AP Spanish Literature and Culture Exam and enter university study well-versed in some of the Spanish-speaking world's most profound material.

## FRENCH

### FRENCH I

(2\_FRE1010; 1.0 credits; Offered every year)

French I is for students in the Upper School with no prior experience in French or students with some prior coursework who need further development before entering French II. Coursework includes thematic vocabulary units, basic grammar structures, and cultural background. Equal attention is given to the four language skills: reading, writing, listening, and speaking. Students are evaluated through quizzes, oral activities, chapter tests, written assignments, projects and participation.

### FRENCH II

(2\_FRE2010; 1.0 credits; Offered every year)

**Prerequisite:** Completion of French I.

In French II, students combine new vocabulary and a full range of grammatical structures and are further exposed to Francophone culture and customs. The four language skills are equally emphasized: speaking, listening, reading, and writing. Evaluation is proficiency-based, with integrated performance assessments at the end of each unit, and includes regular class participation, quizzes, and a variety of assignments.

### FRENCH III

(2\_FRE3010; 1.0 credits; Offered every year)

**Prerequisite:** Completion of French II.

In French III, students will continue to deepen their understanding of and comfort with French grammar. Speaking, listening, reading, and writing activities become more sophisticated. Evaluation is proficiency-based, with integrated performance assessments at the end of each unit, and includes regular class participation, quizzes, and a variety of assignments.

### HONORS FRENCH III

(2\_FRE3510; 1.0 credits; Offered every year)

**Prerequisite:** Completion of French II (A- or higher) and departmental approval.

In Honors French III, students are exposed to original cultural reading, authentic pieces from contemporary French vloggers, and an introduction to Francophone literature. Although present from the earliest stages of language study, reading, writing, listening, and speaking activities become more sophisticated and receive greater emphasis in this course. Frequent quizzes and summary tests are the basis of performance evaluation, along with various project-based assignments and classroom participation in French.

#### **FRENCH IV**

(2\_FRE4010; 1.0 credits; Offered every year)

**Prerequisite:** Completion of French III.

In French IV, students explore the French and Francophone worlds through poetry, film works of literature, and art. All students are expected to participate in class discussions. Evaluation is based upon regular writing assignments and oral presentations, including movie, art, and research projects, as well as oral and written quizzes and essays. This course is conducted almost entirely in French and is similar in content and approach to Honors French IV without the fast pace.

#### **HONORS FRENCH IV**

(2\_FRE4510; 1.0 credits; Offered every year)

**Prerequisite:** Completion of French III (A- or higher) or Honors French III (B+ or higher) and departmental approval.

In Honors French IV, students explore the French and Francophone worlds through poetry, film, works of literature, and art. All students are expected to participate in class discussions. Evaluation is based upon regular writing assignments, oral presentations, including movie, art, and research projects, and oral and written quizzes and essays. This course is conducted entirely in French and prepares students for enrollment in AP French Language and Culture.

#### **FRENCH V**

(2\_FRE4050; 1.0 credits; Offered every year)

**Prerequisite:** Completion of French IV

French V is for those wishing to continue French studies without any expectation of AP preparation. Students explore the French and Francophone worlds through poetry, film works of literature, and art. All students are expected to participate in class discussions. Evaluation is based upon regular writing assignments, oral presentations, including movie, art, and research projects, and oral and written quizzes and essays. This course is conducted almost entirely in French.

#### **AP FRENCH LANGUAGE AND CULTURE**

(2\_FRE4910; 1.0 credits; Offered every year)

**Prerequisite:** Completion of French IV (A- or higher) or Honors French IV (B+ or higher) and departmental approval.

AP French Language and Culture, conducted exclusively in French, advances students' communication skills, enabling them to achieve a high level of proficiency in their speaking, listening, writing, and reading of French in preparation for the AP French Language and Culture Exam. A broad range of authentic materials (including newspapers, the Internet, film, radio, and television) is the basis for discussing and investigating diverse cultural and linguistic subject matter. Students are given the freedom to explore the six AP themes and questions. Evaluation of progress is based on a variety of assessments including essays, oral and written quizzes and tests, as well as individual and collaborative research projects and oral presentations.

## MATHEMATICS & COMPUTER SCIENCE

Students must earn a minimum of three credits from full-year math or computer science courses, including completion of Geometry and Algebra II. However, almost all students take a math course each year. The course of study traditionally begins with Algebra I or Geometry, followed by Algebra II.

Students who would like to take more than one year-long math course concurrently must submit an appeal and be approved by the Math Department Chair. Additionally, if ninth grade students who are enrolled in Algebra I would like to take Calculus in high school, they should consult the Math Department for more information about pathways to calculus.

### **MATHEMATICS** ALGEBRA I

(3\_MAT1405; 1.0 credits; Offered every year)

In Algebra I, students study the properties of the real number system, solve equations using one variable, study systems of two variables, graph inequalities, factor polynomials, and manipulate polynomial and radical expressions. They work with exponents, and graph linear, quadratic, and absolute value functions. Algebra is also used to solve word problems.

### **HONORS ALGEBRA I**

(3\_MAT1505; 1.0 credits; Offered every year)

**Prerequisite:** Departmental approval.

In Honors Algebra I, students learn in greater depth and at a faster pace how to apply properties of the real number system, solve equations using one variable, solve systems of two variables, graph inequalities, factor polynomials, and manipulate polynomial, rational, and radical expressions. They work with exponents, and graph linear, quadratic, and absolute value functions. Algebra is also used to solve word problems.

### **GEOMETRY**

(3\_MAT2405; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Algebra I.

Geometry familiarizes students with all the core topics in Geometry, from point and line configurations to triangles, quadrilaterals, polygons, and circles, similarity and congruence, and measurements of angles, distances, areas, and volumes. Students actively learn to construct proofs of their insights and geometric objects that illustrate and exploit them. This course prepares students for more advanced mathematics studies by sharpening their geometric reasoning and introducing them to logic and notions of what constitutes a complete, consistent, and convincing argument.

### **HONORS GEOMETRY**

(3\_MAT2505; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Algebra I and departmental approval.

Honors Geometry familiarizes students with all the core topics in Geometry, from point and line configurations to triangles, quadrilaterals, polygons, and circles, similarity and congruence, and measurements of angles, distances, areas, and volumes. Writing proofs is an area of emphasis in this course. This course prepares students for more advanced mathematics studies by focusing on their

problem-solving skills, sharpening their geometric reasoning and introducing them to logic and notions of what constitutes a complete, consistent, and convincing argument.

### **ALGEBRA II**

(3\_MAT3405; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Algebra I.

Algebra II extends the study of number systems to include complex numbers. Students investigate linear, quadratic, radical, rational, exponential, logarithmic, and higher-order polynomial equations and inequalities, and use them creatively in writing and solving problems. Students also learn the relationship between rational exponents and radical expressions. Function notation is introduced, and students explore elementary properties of functions.

### **HONORS ALGEBRA II**

(3\_MAT3505; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Algebra I and departmental approval.

Honors Algebra II assumes that students have mastered the topics covered in Honors Algebra I. This course covers the same material as Algebra II, but topics are covered in more depth and breadth. Additional advanced Algebra topics are introduced as time permits.

### **PRECALCULUS: FUNCTIONS AND TRIGONOMETRY**

(3\_MAT4410; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Algebra II and completion of or concurrent enrollment in Geometry.

Precalculus: Functions and Trigonometry exposes students to the study of polynomial, rational, exponential, logarithmic, and trigonometric functions and their graphs. Students explore real-world problems by creating, analyzing, and interpreting mathematical models. This course is designed for students planning to take Calculus.

### **HONORS PRECALCULUS**

(3\_MAT4505; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Algebra II, completion of or concurrent enrollment in Geometry, and departmental approval.

Honors Precalculus assumes that students have mastered the topics covered in Honors Algebra II. In this course, students study trigonometric functions and graphs, polar coordinates and conic sections, complex numbers in polar form, sequences and series, and probability. Concepts of calculus are introduced as time permits. This course is designed for students planning to take AP Calculus AB.

### **HONORS PRECALCULUS with CALCULUS TOPICS**

(3\_MAT4510; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Algebra II, completion of or concurrent enrollment in Geometry, and departmental approval.

Honors Precalculus with Calculus Topics assumes that students have mastered the topics covered in Honors Algebra II. In this course, students will study trigonometric functions and their graphs, polar coordinates, conic sections, complex numbers in polar form, sequences and series, probability, and limits and continuity. Other calculus concepts will be introduced as time permits. This course is designed for students planning to take either AP Calculus AB or AP Calculus BC.

### **CALCULUS**

(3\_MAT5450; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Precalculus.

Calculus assumes that students have a working knowledge of Precalculus. This course provides an introduction to the concepts and techniques of calculus through a combination of teacher-directed instruction and inquiry-based learning activities. Students work alone and in groups to comprehend and solve problems involving functional notation, limits and continuity, differentiation, and integration. These topics are presented simultaneously to build the Fundamental Theorem of Calculus. This course prepares students for a first-year college-level calculus course.

### **AP CALCULUS AB**

(3\_MAT5910; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Honors Precalculus and departmental approval.

AP Calculus AB is a college level course that prepares students for the AP Calculus AB Exam. The course will begin with a review of Precalculus topics and will then cover limits and continuity, and derivatives and integrals of algebraic and transcendental functions, and applications to real-world problems. Students will use multiple representations of functions to make connections among problems expressed numerically, verbally, algebraically, and analytically. The use of technology to solve problems will also be emphasized in this course.

### **AP CALCULUS BC**

(3\_MAT5915; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Honors Precalculus with Calculus Topics and departmental approval.

**NOTE:** AP Calculus BC covers all of the topics in AP Calculus AB, along with additional topics not covered in AP Calculus AB. Students cannot earn credit for both AP Calculus AB and AP Calculus BC.

AP Calculus BC prepares students for the AP Calculus BC Exam and is designed to be a continuation of Honors Precalculus with Calculus Topics. Students entering the course are expected to have a working knowledge of limits. The course covers the properties of differentials and integrals of algebraic and transcendental functions, as well as the calculus of parametric and polar functions, Taylor and Maclaurin series, and differential equations.

### **HONORS LINEAR ALGEBRA**

(3\_MAT5940; 1.0 credits; Offered every year)

**Prerequisite:** Completion of AP Calculus AB or AP Calculus BC and departmental approval.

**NOTE:** This course may be taken concurrently with Honors Multivariable Calculus only in grade 12/PG.

Honors Linear Algebra assumes that students have mastered the topics covered in AP Calculus. In this course, students learn how to think about vectors, the spaces in which vectors live, and linear mappings between those spaces. They explore a variety of applications (in business, science, and engineering) in which multiple variables interact in ways that can be modeled by systems of linear equations. This course covers matrix algebra, vector spaces, and eigenvalues and eigenvectors, and introduces optimization and finite state Markov chains as time permits. A great deal of mathematical maturity is required. Students will gain an appreciation for all aspects of responsible decision making - including consideration of social and ethical implications - as they use linear algebra to solve real life problems.

### **HONORS MULTIVARIABLE CALCULUS**

(3\_MAT5950; 1.0 credits; Offered every year)

**Prerequisite:** Completion of AP Calculus AB or AP Calculus BC and departmental approval.

**NOTE:** This course may be taken concurrently with Honors Linear Algebra only in grade 12/PG.

Honors Multivariable Calculus extends the theorems of calculus to curves and surfaces in space. Students investigate vector calculus, partial derivatives, and multiple integrals. Differential equations will also be covered, as well as additional topics as time allows. A variety of applications are explored from differential geometry to physics, engineering, and beyond.

### **FOUNDATIONS OF PRECALCULUS**

(3\_MAT4000; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Algebra II, Geometry and departmental approval.

Foundations of Precalculus is a college preparatory course that covers various topics in foundational mathematics. The course will cover graphing and solving linear, quadratic, absolute value, polynomial, radical, rational, exponential and logarithmic functions. Students will also learn to simplify expressions using exponent rules and perform operations with polynomial and rational functions. Additional topics will be covered as time permits.

### **FINANCIAL ALGEBRA**

(3\_MAT4302; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Algebra II.

Financial Algebra is a course that provides students with the tools necessary for becoming financially responsible young adults. The course employs selected topics in Algebra 2, Probability, and Statistics to solve financial problems that occur in everyday life. Real-world problems in investing, credit, banking, auto insurance, mortgages, income taxes, budgeting and planning for retirement are solved by applying the relevant mathematics. Field projects, computer spreadsheets, and graphing calculators are key components of the course.

### **STATISTICS AND DATA SCIENCE**

(3\_MAT5507; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Algebra II.

This course will introduce students to the main ideas of statistics and data science through tools such as Google Sheets, Python, Data Commons, and Tableau. Students learn how to use statistics in decision making to solve real-world problems. Students will learn to be data explorers in project-based units through which they will develop their understanding of data analysis, sampling, experimental design, correlation/causation, bias and uncertainty, probability, modeling with data, making and evaluating data-based arguments, the power of data in society, and more! At the end of the course students will have a portfolio of their data science work to showcase their newly developed skills.

### **AP STATISTICS**

(3\_MAT5900; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Honors Algebra II and departmental approval.

AP Statistics prepares students for the AP Statistics Exam. Students develop analytical and critical thinking skills as they learn to describe data patterns and departures from patterns, plan and conduct studies, use probability and simulation to explore random phenomena, estimate population parameters, test hypotheses, and make statistical inferences. This is a rigorous course that requires students to think and write extensively about the process of using statistics to investigate real-world problems.

**COMPUTER  
SCIENCE**

**INTRODUCTION TO PROGRAMMING AND GAME DESIGN**

(3\_MAT5030; 0.5 credits; Offered every year)

**NOTE:** This course is a cross-curricular Computer Science and Visual Art course. Students must elect to enroll into this course for either Math/Computer Science or Visual Art credit.

In Introduction to Programming & Game Design, students will learn the foundations of programming and game development. Students will develop the skills necessary to create basic video games using Python, a simple and intuitive yet powerful programming language. We will cover variables, control structures, lists, functions, events and timers. Students will be able to express their creativity and visual artistry by designing characters and backgrounds in their games. Students will gain rich programming experience by completing labs and creating a final open-ended project in the form of a functioning 2D game.

**AP COMPUTER SCIENCE A**

(3\_MAT4950; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Honors Geometry or Honors Algebra II, and departmental approval.

AP Computer Science A is a study of the principles of computer science. Students receive a hands-on look at creating software to solve real-world problems. Students create interactive programs in Java as they learn about object-oriented programming, algorithm development, data structures, design principles, and abstraction. A significant focus throughout the course is learning strategies for effective problem solving no matter the context. No prior experience in computer science is required. This course prepares students for the AP Computer Science A Exam.

**HONORS SOFTWARE ENGINEERING**

(3\_MAT5040; 1.0 credits; Offered every year)

**Prerequisite:** Completion of AP Computer Science A and departmental approval.

In Honors Software Engineering, students will learn advanced programming techniques and the fundamentals of software development. This course will be taught using C++ to take advantage of its performance and low-level memory access. We will cover version control with Git, memory allocation and management, and the implementation/usage of various data structures and algorithms to expand our problem-solving toolkit. Students will develop testing skills that they will apply to all code that they produce. Comparing and analyzing the efficiency of different approaches in order to make good design decisions will be a central focus of the course.

## SCIENCE

Students must complete three years of lab science. The course of study includes a year-long introductory course in Biology, typically taken as a ninth grader. Students may choose two additional lab science courses, and should plan to take all prerequisites accordingly.

The Biology curriculum provides students with a background into the structure and function of biological systems. Students build their understanding of living systems by investigating major themes within biochemistry, cell biology, energy dynamics, gene expression, heredity, evolution, and ecology/biodiversity. Through varied laboratory investigations and coursework, students apply a variety of scientific techniques including data collection, interpretation, critical thinking, and problem-solving skills that help them interpret the processes within and around them.

## BIOLOGY

### BIOLOGY

(4\_BIO2005; 1.0 credits; Offered every year)

The Biology curriculum provides students with a background into the structure and function of biological systems. Students build their understanding of living systems by investigating major themes within: biochemistry, cell biology, energy dynamics, gene expression, heredity, evolution and ecology/biodiversity. Through varied laboratory investigations, students apply a variety of scientific techniques and develop critical thinking and problem-solving skills that help them interpret the processes within and around them. Coursework includes tests, quizzes, laboratory analyses, homework, and projects.

### HONORS BIOLOGY

(4\_BIO2500; 1.0 credits; Offered every year)

**Prerequisite:** Departmental approval.

Honors Biology is an accelerated curriculum that provides students with a survey of the structure and function of biological systems. Emphasizing independent study and reading, students build their understanding of living systems by investigating major themes within biochemistry, cell biology, energy dynamics, gene expression, heredity, evolution and ecology. Students enhance their ability to communicate scientifically through both speaking and writing. Through varied, inquiry-based laboratory investigations, students apply a variety of scientific techniques and develop critical thinking and problem-solving skills that help them interpret the processes within and around them.

### AP BIOLOGY

(4\_BIO2900; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Biology, Chemistry and departmental approval.

Students enrolled in this college-level biology course conduct detailed studies centered around the four central themes of evolution, energetics, information storage and transmission and biological systems interactions, while discovering essential relationships that exist between more finite units of study within the biological realm. This is an advanced and fast-paced course that requires self-discipline as well as extensive independent study and is intended for students with a strong interest in pursuing life sciences in their future. Reading requirements for the course are rigorous and require a daily commitment in order to stay current in the class. Methods of assessment vary but include tests, quizzes, active reading notes, lab reports, collaborative activity summaries and practice

AP tests. The course will focus on the development of analytical, inquiry, and modeling skills, and the process of experimental design as handled through the substantial modeling activities and laboratory components. This course prepares students for the AP Biology Exam. A summer assignment should be expected.

### **HONORS GENETICS**

(4\_BIO4500; 1.0 credits; Offered every other year)

**Prerequisite:** Completion of Biology, Chemistry and departmental approval.

The primary focus of the course Honors Genetics is to discover genetics from two perspectives: the scientific and ethical approach. This advanced laboratory-based course builds on the concepts from Biology and provides students with a solid understanding of classical and molecular genetics, the bioethics behind many current recombinant/editing technologies, and how these technologies can be used (particularly in the new field of synthetic biology).

### **HONORS INFECTION AND DISEASE**

(4\_BIO4520; 1.0 credits; Offered every other)

**Prerequisite:** Completion of Biology, Chemistry and departmental approval.

**NOTE:** This course will not be offered in the 2026-2027 academic year.

Honors Infection and Disease will focus on pathogenic viruses, bacteria, and parasites, their structure, function, and the mechanisms of pathogenesis. Additional emphasis on host responses to infection and injury shall be the basis for understanding important microbes and viruses. External factors (like religion, cultural, gender, and socio-economic background) will be considered as influencing pressures that determine the course and scope of infection.

## CHEMISTRY

### CHEMISTRY

(4\_CHE3015; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Algebra I.

Chemistry is the study of matter in all its phases. Chemical concepts include atomic structure, moles, and stoichiometry, the three states of matter, chemical bonding, energy, and acids and bases. Special emphasis is placed upon developing critical thinking and problem-solving skills, frequent qualitative and quantitative data analysis, and experimental design. Argument-driven lab activities provide frequent opportunities to examine chemical and physical behavior to draw conclusions from evidence. Content knowledge and skills are assessed through quizzes, lab reports, and presentations.

### HONORS CHEMISTRY

(4\_CHE3510; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Algebra I and departmental approval.

Honors Chemistry offers an in-depth look at the chemical world. The course focuses on the concepts of atomic theory, chemical bonding, molecular geometry, the stoichiometry of chemical reactions, gasses, thermochemistry, reactions in solution, and acid-base chemistry. Emphasis is placed on critical thinking and problem-solving skills as well as qualitative and quantitative data interpretation. Labs will focus on experimental design, data collection, and analysis, and students will learn how to construct an evidence-based scientific argument. Assessments include tests, quizzes, laboratory analyses, homework, and projects.

### AP CHEMISTRY

(4\_CHE3910; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Chemistry, completion or concurrent enrollment in Algebra II, and departmental approval.

AP Chemistry, a second-year Chemistry course, prepares students for the AP Chemistry Exam. The course assumes that students have an excellent understanding of introductory chemistry, including basic chemical reactions, stoichiometry, and foundational bonding concepts. Students will engage in an in-depth investigation of bonding, intermolecular forces, reaction kinetics, behavior of gases and solutions, thermodynamics, equilibrium, acid-base chemistry, and electrochemistry. Additional discussions focus on descriptive chemistry and classes of chemical reactions. Concepts are supported by extensive laboratory experiments. Students are expected to learn some material independently and must solve open-ended laboratory problems by designing and carrying out experiments of their own. Advanced problem solving and analytical laboratory techniques are emphasized. Coursework includes tests, quizzes, laboratory analyses, homework, and projects. A summer assignment should be expected.

### HONORS ORGANIC CHEMISTRY

(4\_CHE3920; 1.0 credits; Offered every year)

**Prerequisite:** Completion of AP Chemistry and departmental approval.

Honors Organic Chemistry involves the synthesis, purification, and characterization of organic compounds. This is a laboratory-heavy course in which the knowledge and skills learned in Honors and AP Chemistry are used to complete college-level, multi-step experiments. Students develop a

deeper understanding of universal lab techniques, applying those techniques to more advanced synthetic mechanisms. This course is intended for individuals who have a natural passion or curiosity for chemistry and are wondering if chemistry is something they want to pursue in college or beyond.

## PHYSICS

### PHYSICS

(4\_PHY4406; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Geometry or Algebra II.

Physics is an investigation of the basic concepts and principles of mechanics and electricity. Coursework includes the development of critical thinking and problem solving, lab skills, qualitative and quantitative data interpretation, and scientific communication. Assessments include quizzes, tests, lab writing, and other presentations of knowledge in various forms.

### HONORS PHYSICS

(4\_PHY4500; 1.0 credits; Offered every year)

**Prerequisite:** Completion of or concurrent enrollment in Precalculus and departmental approval.

Honors Physics is a rigorous investigation of the basic principles of mechanics and electricity. Coursework includes the development of critical thinking and problem solving, lab skills, qualitative and quantitative data interpretation, and scientific communication. Assessments include quizzes, tests, lab writing and other presentations of knowledge in various forms. This course prepares students to take AP Physics 2 or AP Physics C: Mechanics.

### AP PHYSICS 2

(4\_PHY4905; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Physics, completion of or concurrent enrollment in Precalculus, and departmental approval.

Building on Honors Physics, this course prepares students for the AP Physics 2 Exam. It is an algebra-based, introductory college-level physics course that explores topics such as fluids, thermodynamics, electromagnetism, optics, and modern physics (quantum, atomic, and nuclear). Students develop critical thinking and problem solving skills related to scientific argumentation, experimentation, modeling, and data analysis. More than a quarter of the course is devoted to guided inquiry labs that aim to develop college-level laboratory skills and technical writing skills. Student skills and knowledge are assessed through inquiry-based lab reports, problem sets, and tests modeled after free-response and multiple-choice questions from the AP 2 exam. A summer assignment should be expected.

### AP PHYSICS C: MECHANICS

(4\_PHY4910; 1.0 credits; May be offered every year)

**Prerequisite:** Completion of Calculus and Physics and departmental approval.

AP Physics C: Mechanics is a Calculus-based, college level, physics course for students with a strong interest in studying one of the physical sciences or engineering at the university level. Students study the fundamental concepts of physics including: kinematics, dynamics, momentum, energy, rotational motion, and oscillations. A quarter of the course is devoted to guided inquiry labs. Students solve a variety of challenging problems including multiple choice and free-response questions from the AP C exam. A summer assignment should be expected.

**AP PHYSICS C: ELECTRICITY AND MAGNETISM**

(4\_PHY4915; 1.0 credits; May be offered every year)

**Prerequisite:** Completion of Calculus and Physics and departmental approval.

The AP Physics C: Electricity and Magnetism course is a second-year, calculus-based, college-level course designed for students interested in studying one of the physical sciences or engineering. The course is designed for students to foster their understanding of physics through classroom study and activities as well as a large hands-on laboratory component as they explore concepts like change, force interactions, field, and conservation. Topics covered include Electrostatics, Conductors, capacitors, and dielectrics, circuits, magnetic fields, and electromagnetism. This course prepares students to take the AP Physics C: Electricity and Magnetism exam.

## GENERAL

### ENGINEERING

(4\_ENG3005; 1.0 credits; Offered every year)

**Prerequisite:** One year of science and completion of Algebra I.

Students are exposed to the basic concepts of engineering and the various engineering disciplines within the profession. Students are challenged with open-ended, hands-on projects in which teamwork and the application of the engineering design process are emphasized. Coursework to demonstrate understanding includes laboratory work, analysis of past engineering projects, and extensive independent and collaborative projects. During the year students will learn how to apply concepts related to the engineering design process, energy, universal design and accessibility and material failure theory. Students will walk away from the class with the ability to think critically about problems around them, use the engineering design process to creatively solve problems, and feel confident safely and properly using tools to build.

### ENVIRONMENTAL SCIENCE

(4\_SCI4420; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Biology and Chemistry.

Environmental Science, at its core, is where all the major sciences come together to explore the complexity and interconnectedness of our planet. Environmental science brings together the fields of ecology, biology, zoology, oceanography, atmospheric science, soil science, geology, chemistry and more in an interdisciplinary study of how natural and human-made processes interact with one another. In this course, we will explore these interactions through the lens of climate change by learning about the four spheres of the earth: the atmosphere, lithosphere, biosphere, and hydrosphere, both around campus and globally. We will do both lab work and fieldwork, with several field trips to collect data and learn about how people use the concepts of environmental science to improve our lives and preserve the environment. Environmental science is all around us, and its impacts have both positive and negative implications for humans and the environment. We have a responsibility to understand the Earth, what is impacting its biomes, and how we can be actively involved in climate action.

### EVOLUTIONARY ANTHROPOLOGY

(4\_SCI4425; 1.0 credits; Offered every other year)

**Prerequisite:** Completion of Biology and Chemistry or Physics.

What does it mean to be human? This course explores what makes us human from a scientific lens centered around the framework of evolution and anthropology. The course will first work through what evolution is, the forces that cause evolution to work, and examine specific pieces of evidence that evolution exists. After establishing a basis for evolution, we'll then examine how those mechanisms produced the taxonomic diversity that led to Homo sapiens specifically, the cultural and intellectual traits we share with our primate brethren, and the complexity and diversity shown in modern humans. In this course, we'll address important questions such as: How did we come to the age of mammals over dinosaurs? Did we evolve from chimpanzees? Where did early humans originate? How did we come to dominate the globe? What is race? Is there an evolutionary component to our modern behavior? Our social structure? How will technology affect us? Students will use their agency and interest to delve deeper into the network of questions that explain what it means to be human.

## **FORENSIC SCIENCE**

(4\_SCI4430; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Biology and Chemistry.

Forensic Science explores the scientific basis and underpinnings behind the study of crime and investigation. In this course, students will learn how various disciplines including biology, chemistry, math, anatomy, psychology, and law are interconnected to solve crime. Through a variety of assessments, students will demonstrate their understanding and application of forensic investigation to apply them to novel scenarios including mock crime scenes. Effective execution of the scientific process is fundamental to the course as students will look at real-world current events, case studies, and cold cases to apply various techniques and practices. Students will gain an appreciation for the importance of evaluating evidence objectively and learn techniques used in the field including fingerprinting, blood analysis, handwriting analysis, evidence collection, casting, impressions, and more. Students will be expected to work both collaboratively and independently on assignments and use evidence-based reasoning to determine "whodunnit".

## **HUMAN ANATOMY**

(4\_SCI4406; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Biology and Chemistry.

Human Anatomy is both a science course and, in many ways, a language course, as success depends on the ability to learn and retain extensive vocabulary. Intrinsic motivation and interest in the subject greatly support student success. The primary focus is anatomical structure, with selective exploration of human physiology. Because memorization is essential, students are expected to study and review material daily outside of class. The course emphasizes writing, critical thinking, and applying anatomical knowledge to physiological systems. Coursework includes tests, quizzes, lab reports, and short projects. Students should be prepared to conduct research, work both collaboratively and independently, and communicate their understanding through a variety of scientific formats. This course is particularly valuable for students interested in health-related fields.

## **HUMAN ECOLOGY: EXPLORING WORCESTER'S BUILT & NATURAL ENVIRONMENTS**

(4\_SCI4555; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Biology and Chemistry.

This course explores the city of Worcester as a dynamic case study in human ecology—the intersection of built, social, and natural environments that shape public health. Students will develop multidisciplinary academic skills grounded in science and evidence-based methods. By studying Worcester's evolving landscape—green spaces such as Green Hill Park, waterways such as Lake Quinsigamond, and rapidly transforming districts like Polar Park—we will analyze the opportunities and challenges of urban sustainability. Students will immerse themselves in strategies for urban development, the impacts the environment has on life in the city, implications of policies and laws on housing and environmental justice, and preparations made for urban biodiversity. Students will be able to explore the city through fieldwork, case studies, and discussions with leaders, residents, and organizations to address real-world challenges. Assessments and activities will include field trips, real-world problem-solving, collaborative projects and opportunities for reflection that connect classroom learning within the city where we live and learn.

### **MARINE SCIENCE**

(4\_SCI4440; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Biology and Chemistry.

**NOTE:** This course will not be offered in the 2026-2027 academic year.

In the Marine Science course, in addition to studying many primary biological concepts, students will build an understanding of a variety of physical, chemical and geological aspects of the oceans with an emphasis on both open-ocean and coastal habitats, systems and processes. Building a greater understanding of the world's oceans that surround us and contemplating our essential role as human stewards of them is a fundamental piece of any person's knowledge base. The course will immerse students in a variety of experiences including numerous mandatory specimen dissections, day-long field trips in the fall, and an overnight excursion to Cape Cod in the spring. These experiences will help students to expand and hone their collaborative and field work skills and help them to make connections between the variety of content units studied throughout the year as well as the larger role of human activity, and the fate of the oceans and human existence.

### **AP PSYCHOLOGY**

(4\_SCI5000; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Biology, Chemistry and departmental approval.

This course is designed to be the equivalent of an introductory college course in psychology. Students are introduced to the systematic and scientific study of the behavior and mental processes of human beings and other animals in context. The course of study focuses on five major units including biological bases of behavior, cognition, development and learning, social psychology and personality, and mental and physical health. Students learn about major figures in psychology, psychological perspectives and data interpretation. Ethics and research methods used in psychological science and practice are emphasized in demonstrations and through the use of articles on historical psychological experiments. This course includes laboratory activities and demonstrations as well as extensive reading.

### **HONORS ANATOMY AND PHYSIOLOGY**

(4\_SCI4500; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Biology and Chemistry, and departmental approval.

Honors Anatomy and Physiology provides an advanced, in-depth study of the human body, from the cellular through the organism levels, emphasizing the relationship between structure and function of the various components of the human body, and includes the impact of disruption of homeostasis-to normal body functioning . Skills taught include writing, critical thinking, memorization, and application of anatomy and physiology to the various interactions between the systems of the body. Methods of assessment include tests, quizzes, lab reports, collaborative activity summaries, and an extensive full-year project focusing on answering an independently derived driving question . Solid writing and presentation skills are expected. Students interested in pursuing any aspect of health sciences in their future are well served by this course.

## **HONORS ENVIRONMENTAL SCIENCE**

(4\_SCI4550; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Biology and Chemistry, and departmental approval.

Environmental Science, at its core, is where all the major sciences come together to explore the complexity and interconnectedness of our planet. Environmental science brings together the fields of ecology, biology, zoology, oceanography, atmospheric science, soil science, geology, chemistry and more in an interdisciplinary study of how natural and human-made processes interact with one another. In this course, we will explore these interactions, both around campus and globally, through project-based learning. We will be outside the classroom, exploring nearby areas relevant to our unit material collecting data to analyze these interactions and their impacts on our lives. Environmental science is all around us, and its impacts have both positive and negative implications for humans and the environment. We have a responsibility to understand the Earth, what is impacting its biomes, and how we can be actively involved in climate action.

## HISTORY & SOCIAL SCIENCES

The History and Social Sciences Department offers year-long courses for all students, including several AP courses and other electives. Students may begin taking an AP History course in the tenth grade; many others are available to eleventh, twelfth and postgraduate students.

Students must take three History and Social Science courses to graduate. The course of study includes Urban History (in ninth grade), World History or AP World History (in tenth grade), and American Studies in History or AP United States History (in eleventh grade).

### URBAN HISTORY

(5\_HSS1050; 1.0 credits; Offered every year)

Today, for the first time in history, a majority of people live in cities. By 2050, cities will hold two-thirds of the world's population. This transformation touches everyone and raises critical questions. What is a city? How did cities develop? How do cities function socially, politically, and economically? Why do people live in cities? What are some of the major issues facing cities in the early 21st century, including divisions by race and by class? How can cities and the people living in them address these issues? Urban History focuses on developing the essential tools and skills of critical thinking and effective communication through an examination of the development of an urbanized world and its consequences for society. The course introduces and develops the key skills and processes of learning, interpreting, and communicating knowledge and understanding. The course also introduces several academic fields, including social science and urban studies, as lenses through which to examine evidence and information. Urban History then applies these tools and skills to an examination of modern urban societies and the origins of cities throughout history. Students will also have the opportunity to explore Worcester's urban community and its development over time. Skills such as note taking, generating hypotheses, evaluating evidence, and communicating ideas effectively are applied to historical, geographical, anthropological, and economic studies of both modern and ancient cities. The course includes the Cornerstone Project, a year-end project designed to sharpen the writing, researching, critical thinking, and analytical skills of the social scientist through exploration of an individually chosen topic.

### WORLD HISTORY

(5\_HSS2410; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Urban History.

This course will explore World History from approximately 1450 CE to the present, focusing on how events from the past have helped shape the world we live in today. It includes the study of Asia, Europe, Africa, and the Americas. Students will be asked to consider a variety of secondary and primary sources to interpret and analyze history. The course also requires students to develop the essential skills of a historian: close reading, note-taking, research, thesis-driven writing, presenting evidence, critical thinking, and analysis. Finally, students will engage in a long-term research project focusing on a 20th or 21st century topic in culture and society, politics, or economic development and communicate their findings in a presentation and research paper.

### **AP WORLD HISTORY**

(5\_HSS2900 1.0 credits; Offered every year)

**Prerequisite:** Completion of Urban History (A- or higher) and departmental approval.

AP World History prepares students for the AP exam by examining global developments from 1200 CE to the present across Asia, Europe, Africa, and the Americas. The course emphasizes the skills and methods of historians, including analyzing primary and secondary sources, constructing evidence-based arguments, recognizing continuity and change, and making comparisons across societies. Students explore six overarching themes: humans and the environment, cultural developments and interactions, governance, economic systems, social structures, and technology and innovation, through assignments such as analytical and document-based essays, multiple-choice tests, student-led seminars, and oral presentations.

### **AMERICAN STUDIES IN HISTORY**

(5\_HSS3410; 1.0 credits; Offered every year)

**Prerequisite:** Completion of World History.

American Studies in History explores the history of the United States chronologically from the early colonial era to the modern day. Students explore the history of the United States through a variety of historical lenses including political, cultural, social, and economic. Throughout the course, students work through American history to understand the impact that the United States has had both on its citizens and the global world. Through a variety of methods, including primary source analysis, individual research and seminars, students explore the development of the United States for all groups of people. An emphasis is placed on writing and communication skills, as students are expected to complete both informal and formal writing assignments, participate in full class discussions, and present information to the class. American Studies in History emphasizes a critical and holistic understanding of the United States' past and how to create one's own historical arguments through research and writing.

### **AP UNITED STATES HISTORY**

(5\_HSS3900; 1.0 credits; Offered every year)

**Prerequisite:** Completion of World History (A- or higher) or AP World History (B- or higher) and departmental approval.

AP United States History provides an intensive, college-level survey of American history from colonial times to the present. Considerable outside work is required, including frequent interpretive essays and in-class document-based essays, along with quizzes and tests. Students learn to read primary sources closely and carefully, interpret different types of evidence, and analyze arguments for accuracy and logic. The course is woven into the American Studies framework (outlined above) and prepares students to take the AP United States History Exam.

### **ECONOMICS (MICRO AND MACRO)**

(5\_HSS4020; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Algebra II and completion of or concurrent enrollment in a US History course.

This course provides a survey-level introduction to concepts in microeconomics and macroeconomics. In the first semester, students will study such microeconomic topics as scarcity and

competition, opportunity cost, supply and demand, surplus, and profit maximization. In the second semester, students will explore macroeconomic topics that will include economic health indicators, monetary and fiscal policy, unemployment, and an overview of the national and international economies. Lastly, the course introduces the basics of finance through economics. In studying these topics, students will have opportunities to practice a variety of fundamental skills, including critical thinking and problem solving, statistical reasoning and data analysis, and effective communication through writing and speaking.

### **GENOCIDE AND HUMAN RIGHTS**

(5\_HSS4025; 1.0 credits; Offered every year)

**Prerequisite:** Completion of or concurrent enrollment in a US History course.

In the wake of the Holocaust, the international community vowed to “Never Again” stand by and allow mass atrocities to occur. Yet, year after year, genocides continue to ravage the world. In 2024 alone, the non-governmental organization Genocide Watch issued 12 alerts for ongoing Genocide Emergencies. How can genocide remain such a widespread problem in this day and age? Why do genocides occur? How can they be prevented? What warning signs exist before violence erupts? How can “everyday people” become perpetrators of mass atrocities? What responsibility does the international community bear in preventing and responding to instances of genocide? By reviewing historical cases and drawing on the works of scholars across a variety of social science disciplines, students will be introduced to the field of Genocide Studies. This course will provide students with an opportunity to explore the evolution of Human Rights as a legal and diplomatic construct supported by multinational agreements, international organizations, and global activists, before examining contemporary crises. Students will delve into the testimonials of victims, survivors, and perpetrators of mass killings through examination of primary and secondary source materials, documentary films, and virtual museum exhibits. With these narratives, students will contemplate and define evil, while reflecting on whether or not the sentiment “Never Again” can ever be reality.

### **THE HISTORY AND POLITICS OF SPORTS**

(5\_HSS4045; 1.0 credits; Offered every year)

**Prerequisite:** Completion of or concurrent enrollment in a US History course.

Why do sports matter? Sport has been a fixture of societies since the ancient world, and in modern times, sports have exponentially grown in their influence globally. Through The History and Politics of Sports, students will study the development of sport in modern times throughout the globe, from the first Modern Olympics in 1896 to the present day. Students will examine the growth of sports as both a cultural and political artifact and will understand how political actors have come to use sport and athletics to their advantage. Working thematically through issues of race, nationalism, colonialism, and globalization, students will come to understand how these issues and sports are explicitly linked throughout history. Through primary and secondary sources, students will explore the connections between the sports and political world, seeing how sports can be used as both a method of resistance and reinforcement. Students will think critically about the global sports world both in the modern-day and throughout history. Routine discussions will enable students to develop academic conversation skills, while also expanding their understanding of the connection between sports and politics.

## **LAW AND GOVERNMENT**

(5\_HSS4095; 1.0 credits; Offered every year)

**Prerequisite:** Completion of or concurrent enrollment in a US History course.

This course empowers students to become active and informed citizens by providing students with a foundational understanding of the US government and legal system, by familiarizing students with their basic rights and obligations as members of our society, and by helping students develop the skills and confidence necessary to critically analyze contemporary problems and become a part of future solutions. This course begins with a review of the historical events and political values that led to the founding of the United States and the drafting of the US Constitution. From there, students study the structure and organization of the state and federal governments, and begin assessing the various ways in which law, government, and politics all impact our daily lives. This course will involve review of legal and historical documents, interpretation of statistical data (without needing to actually "do math"!), analysis of contemporary media coverage, writing and reflection, discussion of "hot-button" issues in modern politics, and participation in field trips to witness law and government in action. As part of a larger culminating project, students will be guided through the process of researching and drafting a policy memo on a topic that they are genuinely passionate about.

## **SOCIOLOGY IN THE CITY**

(5\_HSS5095; 1.0 credits; Offered every year)

**Prerequisite:** Completion of or concurrent enrollment in a US History course.

Sociology is the scientific study of how society affects us, including our social interactions and relationships. Sociologists often observe social environments like families, schools, or cities to see how their different arrangements have different outcomes. In this course, students will examine how people are affected by each of those social contexts, but especially the city. The class will collect and analyze data together to show patterns in how people behave here in Worcester and beyond. Those will include variations in rates of illness, spending, political orientations, crime, religiosity, and happiness. Using regular trips into the city, students will investigate what it is to occupy different positions within it, including the most basic ones such as those varying by gender, sexuality, race, ethnicity, age, or socio-economic status.

## **WHAT'S GOIN' ON: SOCIAL JUSTICE IN HISTORY**

(5\_HSS4005; 1.0 credits; Offered every year)

**Prerequisite:** Completion of or concurrent enrollment in a US History course.

**NOTE:** This course is cross-curricular and team-taught by English and History/Social Sciences faculty. Students must elect to enroll into this course for either English or History/Social Science credit.

"All men are created equal." When Thomas Jefferson penned those words, he was—along with a majority of the Founding Fathers—an owner of enslaved human beings. The original U.S. Constitution gave voting rights only to white men who owned property. The poor and people of color were not deemed worthy of such rights; women were not even a consideration. Black Americans counted as three-fifths of a person for purposes of taxation and representation. How does this history set the foundation for the structural inequalities that persist to this day? Is America really the "land of the free" if liberty and justice are not guaranteed? How are individuals complicit in systems of inequality, and what can we do about it? What is the nature of resistance and activism? Is social justice truly attainable? How does literature explore these themes and ideas? How can literature be a critique of society? Through an in-depth, historical and literary exploration of identity, power, and

privilege, students will grapple with these questions and relate them to current issues in our society. By the end of the year, students will be better informed about social justice and its relevance in their own lives and be prepared to act as advocates for social justice in society.

### **AP AFRICAN AMERICAN STUDIES**

(5\_HSS4950; 1.0 credits; Offered every year)

**Prerequisite:** Completion of American Studies in History (A- or higher) or AP United States History (B- or higher) or concurrent enrollment in another AP History course, and departmental approval.

AP African American Studies is an interdisciplinary course that examines the diversity of African American experiences through direct encounters with authentic and varied sources. Students explore key topics that extend from early African kingdoms to the ongoing challenges and achievements of the contemporary moment. Given the interdisciplinary character of African American studies, students in the course will develop skills across multiple fields, with an emphasis on developing historical, literary, visual, and data analysis skills. This course foregrounds a study of the diversity of Black communities in the United States within the broader context of Africa and the African diaspora.

### **AP COMPARATIVE GOVERNMENT**

(5\_HSS4960; 1.0 credits; Offered every year)

**Prerequisite:** Completion of American Studies in History (A- or higher) or AP United States History (B- or higher) or concurrent enrollment in another AP History course, and departmental approval.

Nobel laureates Daron Acemoglu and James Robinson argued that “for liberty to emerge and flourish, both state and society must be strong.” Political scientist Stephen Krasner argued that “[w]ithin their own boundaries, the members of a polity are free to choose their own form of government.” Ultimately, professors Mark Lichbach and Alan Zuckerman posed the Big Questions of political thought: Who rules? How are interests represented? Who wins and who loses? How is authority challenged? Why are some nations “developed”? AP Comparative Government and Politics introduces students to the rich diversity of political life outside the United States. The course uses a comparative approach to examine the political structures; policies; and political, economic, and social challenges of six countries: China, Iran, Mexico, Nigeria, Russia, and the United Kingdom. After an introduction to political science themes including causality, legitimacy, sovereignty, stability, nation-state, citizenship, political ideology, and political economy, the course takes a case study approach to democracy and non-democratic systems in the UK and Iran, communist and post-communist systems in Russia and China, and development and globalization in Mexico and Nigeria. Students examine each topic through a combination of secondary, scholarly, and current events readings, applied during seminar discussions, collaborative presentations, and comparative analytic essays. The course allows students to be prepared for the AP Comparative Government and Politics exam in the spring. This course includes a summer reading assignment that must be completed before the first day of classes, and forms the basis of our first seminar discussion.

### **AP ECONOMICS (MICRO AND MACRO)**

(5\_HSS4935; 1.0 credits; Offered every year)

**Prerequisite:** Completion of Algebra I and American Studies in History (A- or higher) or AP United States History (B- or higher) or concurrent enrollment in another AP History course, and departmental approval.

This college-level AP Economics course encompasses both the AP Macroeconomics and AP Microeconomics courses, each the equivalent of a one-semester college course. Students in AP Economics are expected to demonstrate advanced skills in problem-solving, analysis, collaboration, research skills, and writing. They are expected to do independent research in preparation for two essay projects, applying the course concepts to outside topics and data. In the Macroeconomics semester, students are introduced to basic concepts of supply and demand, as well as advanced topics about national economic indicators, the financial sector, stabilization policies, and the foreign exchange market. In Microeconomics during the second semester, the course focuses on consumer and producer behavior, perfect and imperfect competition models, monopolistic behavior, game theory, and market failure. In addition to the two research projects, students also complete a series of current events analyses and compete in a stock market investing project throughout the year. The course allows students to be prepared for both the AP Macroeconomics and AP Microeconomics exams in the spring. This course includes a summer reading assignment that must be completed before the first day of classes.

### **AP EUROPEAN HISTORY**

(5\_HSS4910; 1.0 credits; Offered every year)

**Prerequisite:** Completion of American Studies in History (A- or higher) or AP United States History (B- or higher) or concurrent enrollment in another AP History course, and departmental approval.

AP European History is an intensive, college-level survey of European history from the Renaissance to the present with extensive primary and secondary reading assignments along with a variety of projects and interpretive and document-based essays. Students in AP European History are expected to demonstrate advanced skills in research, analysis, writing, and collaboration. They are expected to do significant independent research in preparation for projects and essays. They must be able to go beyond the surface of the material to analyze more deeply; in order to do so, they need to be able to understand the work of other historians as well as detailed, complex primary sources. Primary sources examined in the course include traditional historical texts as well as art, music, and literature. Students must be able to work productively in groups for projects such as debates and presentations. Students are expected to write a 10-12 page research paper on a topic of their choosing relating to the 19th or 20th centuries. AP European History is designed to be a true bridge between high school and college, as it offers some of the supports of a high school course combined with the expectation of independence of a college class. This course prepares students for the AP European History Exam.

## VISUAL & PERFORMING ARTS

There are a wide variety of art courses offered for both visual and performing artists, beginner and advanced.

Four semesters of visual and performing arts courses are required in which at least one semester must be a visual art and one semester must be a performing art.

The requirement is modified for students entering in eleventh or twelfth grade/postgraduate. Two semesters are required for new eleventh grade students and one semester is required for twelfth grade/postgraduate students.

### VISUAL ARTS EXPLORATION OF THE VISUAL ARTS

(6\_ART5000; 0.5 credits; Offered every year)

Discover the world of the visual artist in this introductory course. You will have hands-on fun in the art studio by experimenting with the tools, craft, and concepts of the visual artist. Express yourself while you learn about the art of diverse cultures. Exploration of the Visual Arts is designed for all levels of interest and skill, whether you see yourself as an artist or not! Note that this class is a prerequisite for all other drawing and painting classes.

#### DRAWING I

(6\_ART5052; 0.5 credits; Offered every year)

**Prerequisite:** Completion of Exploration of the Visual Arts or departmental approval.

Drawing is a basic skill that anyone can learn. Experiment with all dry media and many drawing styles. Observational drawing (realistic) and more expressive, abstract approaches to drawing are offered. Skills and self-expression are emphasized in Drawing I.

#### DRAWING II

(6\_ART5054; 0.5 credits; Offered every year)

**Prerequisite:** Completion of Drawing I or departmental approval.

**NOTE:** Course may be repeated for credit.

Take your drawing skills to a new level in this advanced class. Develop a strong portfolio of work using any drawing media you like to advance your artistic vision. Basic drawing is reviewed and new projects, techniques, and styles are presented. Emphasis is on developing a personal style, composition, and portfolio-ready presentation. It is recommended that Drawing II students keep an art journal (sketchbook).

#### PAINTING I

(6\_ART5072; 0.5 credits; Offered every year)

**Prerequisite:** Completion of Exploration of the Visual Arts or departmental approval.

In Painting I, students learn how colors interact (color theory) and how to use various paint media to express themselves visually. They experiment with mixing color, different styles of painting, and different kinds of paint, including watercolor, acrylic, and mixed media. This class is informed by the work of contemporary artists and art from diverse cultures and historical periods. Through group

work, shared reflection, and class critiques, we develop a community of artists in our studio. Students are strongly encouraged to keep a sketchbook in this class.

## **PAINTING II**

(6\_ART5074; 0.5 credits; Offered every year)

**Prerequisite:** Completion of Painting I or departmental approval.

**NOTE:** Course may be repeated for credit.

Concentrate on your personal painting style and take your artistic vision to a higher level! Painting II is for the student artist who wants to expand their knowledge of the painting medium and work more independently in the art studio. This class will help you develop a body of creative work in the form of an art portfolio for posting to your social media site, a prospective art school portfolio, or for college supplements. Media used: watercolor, ink, acrylic, and water-mixable oil paint, mixed media. All students are encouraged to keep a sketchbook in this class.

## **ADVANCED STUDY IN STUDIO ART**

(6\_ART5515; 0.5 credits; Offered every year)

**Prerequisite:** Completion of three semesters of WA Visual Arts classes or departmental approval.

**NOTE:** Preference is given to students creating a college/art school portfolio, 2nd semester juniors, and to seniors. Course may be repeated for credit.

Advanced Study in Studio Art is for the developing artist who is able to work independently, has worked extensively on the basics of painting and drawing, and is interested in challenging themselves further in art. Students may work in any painting or drawing medium they like. Four self-directed projects are expected to be completed per semester. The development of a strong portfolio of artwork and the creative use of art materials is emphasized. This class is an especially good choice for students who will be furthering their art in college and beyond. A sketchbook or art journal will be required, with one weekly 30-minute homework assignment.

## **HONORS STUDIO ART**

(6\_ART5520; 0.5 credits; Offered every year)

**Prerequisite:** Completion of Advanced Study in Studio Art and four semesters of art courses, or departmental approval.

**NOTE:** This honors level class is designed for seniors creating a college supplement/art school portfolio. This course may be repeated for credit.

Honors Studio Art is for the serious student artist who has worked extensively on the basics of painting and drawing and is now working independently at an advanced level. Students enrolled in Honors Art are expected to spend an extra 3 hours each week (outside of designated class time) working in the WA art studio on their artwork. The subject and media the student explores are their own choice; all projects are self-driven with guidance from the teacher. Development of a strong art portfolio, critiques, and personal challenge are emphasized. This class is an especially good choice for students who will be furthering their studies in art in college and beyond. Keeping a sketchbook will be required; 30 minutes of sketchbook homework will be expected weekly.

## **ARCHITECTURE**

(6\_ART5020; 0.5 credits; Offered every year)

**NOTE:** Course may be repeated for credit.

Structures surround us and have a strong impact on our lives. They can evoke emotions and can influence our behaviors. Here at Worcester Academy students interact with multiple structures on a daily basis. In Architecture, students are given the opportunity to create multiple original structures by following a scaffolded design process. Throughout the semester, students will be challenged with multiple projects that highlight the elements of architectural design and will be pushed to create structures to the best of their ability. by studying Interior, exterior, and landscape design, and the exploration of the styles of architecture throughout history, students will grow their knowledge of the world while building their skills as creatives.

## **CERAMICS I**

(6\_ART5030; 0.5 credits; Offered every year)

**NOTE:** Course may be repeated for credit.

Come play with mud! Ceramics is a hands-on learning experience. This one-semester course is designed to expose students to a variety of ceramic techniques and processes. Students will investigate projects through methods of hand-building, wheel throwing, and glazing. Both functional and sculptural clay works are explored as we take a look at the clay work of various world cultures and contemporary clay artists. This course covers an introduction to the basic processes of ceramic arts and prepares students for the next level.

## **CERAMICS II**

(6\_ART5035; 0.5 credits; Offered every year)

**Prerequisite:** Completion of Ceramics I and departmental approval.

**NOTE:** Course may be repeated for credit.

Take your mud-making skills to the next level! Ceramics II is designed to build on students' skills and experiences developed in Ceramics I. This course will explore a variety of advanced ceramic techniques and processes. Areas of focus include wheel throwing and hand-building methods as well as decorative surface techniques using texture, underglazes, slips, and glazes. Students will have fun and work independently with an emphasis on finding their own personal style, while further building upon their skills and craftsmanship.

## **DIGITAL PHOTOGRAPHY, DIGITAL ART MAKING I**

(6\_ART5085; 0.5 credits; Offered every year)

In Digital Photography, Digital Art Making I students explore the elements and principles of art and design using digital photography as a medium. DSLR cameras are provided, and students learn picture-taking basics—from the care and handling of the camera to selecting and printing images for exhibition. Adobe Lightroom and Adobe Photoshop are introduced. Students undertake simple digital art projects that start with a photograph. Emphasis is on hands-on exploration, discovery, and skill building.

### **DIGITAL PHOTOGRAPHY, DIGITAL ART MAKING II**

(6\_ART5088; 0.5 credits; Offered every year)

**Prerequisite:** Completion of Digital Photography, Digital Art Making I.

**NOTE:** This course will not be offered during the 2026-2027 academic year.

In Digital Photography, Digital Art Making II, students take their skills to the next level by working in series, exploring more advanced techniques, and taking on projects that challenge them to improve their craft and become more proficient with digital art platforms. Greater emphasis is placed on creative self-expression and building foundational skills that support further work in a variety of career paths.

### **GRAPHIC DESIGN AND ILLUSTRATION**

(6\_ART5090; 0.5 credits; Offered every year)

**NOTE:** This course will not be offered during the 2026-2027 academic year.

Graphic design students will explore digital design tools and techniques through a series of classroom exercises and hands-on projects. They will learn to recognize the principles of good graphic design and how text and imagery can be integrated to powerfully communicate ideas. They will apply these new tools and techniques to projects of personal interest - designing album covers, logos, posters, packaging, greeting cards, animated gifs, and illustrations.

### **INTRODUCTION TO PROGRAMMING & GAME DESIGN**

(3\_MAT5030; 0.5 credits; Offered every year)

**NOTE:** This course is a cross-curricular Computer Science and Visual Art course. Students must elect to enroll into this course for either Math/Computer Science or Visual Art credit.

In Introduction to Programming & Game Design, students will learn the foundations of programming and game development. Students will develop the skills necessary to create basic video games using Python, a simple and intuitive yet powerful programming language. We will cover variables, control structures, lists, functions, events, time, and the basics of classes and objects. Students will be able to express their creativity and visual artistry by designing pleasant user interfaces and entities in their games. Students will gain rich programming experience by completing labs and creating a final open-ended project in the form of a functioning 2D game.

**PERFORMING  
ARTS**     **INSTRUMENTAL ENSEMBLE**

(6\_MUS1011; 0.5 credits; Offered every year)

**NOTE:** Course may be repeated for credit.

Instrumental Ensemble is for all student instrumentalists and students becoming instrumentalists! It presents and reinforces individual and ensemble skills through technical exercises and performance repertoire. Group and sectional rehearsals foster independence and complement the student experience in the larger ensemble. Concert repertoire is developed for performance at school concerts and performances in the greater Worcester community. Students are expected to maintain a dedicated level of interest, attend all concerts and make a commitment toward continued development and progress on their instruments. Individual lessons are available and encouraged (see Music Studies).

**CHORUS**

(6\_MUS5020; 0.5 credits; Offered every year)

**NOTE:** Course may be repeated for credit.

Chorus fosters both teamwork and independence through the creation of vocal ensembles. Preparing and performing a varied repertory drawn from an array of cultures and historical periods is just one aspect of the class. The class as a group strives to meet the needs of all our members. Singers focus on technique, interpretation, improvisation within a harmonic framework, and musicianship. They have an active voice in determining the nature of group projects and have the opportunity to choose solo and small group pieces. Chorus performs both at Worcester Academy and in the greater Worcester community. Students are encouraged to audition for our select extra-curricular ensemble, The Academy Singers, and are eligible to enroll in voice lessons (see Music Studies).

**FOUNDATIONS OF MUSICAL THEATER**

(6\_MUS5030; 0.5 credits; Offered every year)

**NOTE:** Course may be repeated for credit.

This semester-long course offers students in grades 9-12 an immersive introduction to the world of musical theater. Designed for beginners and those looking to enhance their performance skills, the curriculum covers the fundamentals of acting through song, performing solos and ensemble pieces, and learning simple choreography. Students will also explore a diverse range of musical works while gaining an understanding of the history of musical theater through the pieces studied in class.

**PIANO THEORY**

(6\_MUS5017; 0.5 credits; Offered every year)

Piano Theory is designed for students interested in exploring the basics of music through piano and keyboards. Students will gain hands-on experience on keyboard instruments while learning the basics of note reading, music theory, and composition. No experience required.

### **GUITAR THEORY**

(6\_MUS5018; 0.5 credits; Offered every year)

In this course students will learn the basics as well as some advanced elements of Guitar Theory. This includes how to properly hold and maintain the guitar, how to read and play chords and Guitar Tablature, learning the Cage system, learning 7th Chords on the guitar, creating songs using defined chord progressions, and learning how to solo over chords and chord progressions.

### **INTRODUCTION TO MUSIC TECHNOLOGY**

(6\_MUS5015; 0.5 credits; Offered every year)

**NOTE:** This course will not be offered during the 2026-2027 academic year.

Introduction to Music Technology provides students with an opportunity to explore and engage with various aspects of electroacoustic music, music production. Class units will explore composing using digital and acoustic instrumentation, mixing and mastering, basic songwriting, and recording studio techniques. Students will work individually and collaboratively on composition and recording projects, share their music frequently with the class for feedback, and work towards creating completed products to share with the larger school or Worcester community. Students will leave this class with a deeper understanding of how technology can be used to compose and record music, as well as practical skills to bring their own musical ideas to life.

### **MUSIC TECHNOLOGY II**

(6\_MUS5016; 0.5 credits; Offered every year)

**Prerequisite:** Completion of Introduction to Music Technology.

**NOTE:** This course will not be offered during the 2026-2027 academic year.

Music Technology II builds upon what students learned in Intro to Music Technology, which is a prerequisite for taking this more advanced course. Students will be free to use whatever pro-level DAW software they have already purchased and begun to learn, including Logic Pro, Cubase, Ableton Live, Protools, FL Studio, etc. Soundtrap, Audacity and other basic DAWs will not be used in this course. Students will need to compose and publish worldwide 10 different multicultural full-length songs using a mix of digital and acoustic instrumentation. This course will be mostly independent study and personal project driven based on a highly detailed rubric, and will also involve more advanced Songwriting, Music Theory, and Sound Editing/Mixing/Mastering concepts. As a finale to the course, students will work together as a team to create, facilitate, promote and judge the city of Worcester's first-ever Digital Music Songwriting Contest open to all city teenagers that would be sponsored by WA. In the end, students will learn what it takes to become a professional music producer.

### **AP MUSIC THEORY**

(6\_MUS4950; 1.0 credits; Offered every other year)

**Prerequisite:** Departmental Approval..

**NOTE:** This course will not be offered during the 2026-2027 academic year.

AP Music Theory is the continuation of advanced composition in traditional melodic and harmonic writing and analysis. The forms and characteristics of composition in various musical styles are studied in both written and aural (ear training) forms. This course prepares students to take the AP Music Theory Exam.

### **STAGE AND STORY**

(6\_THE6000; 0.5 credits; Offered every year)

In this course, students develop essential communication skills through the complementary disciplines of public speaking and theatrical performance. By exploring storytelling across formal presentations, improvisational exercises, and scripted performance, students strengthen oratory, personal reflection, and leadership skills while learning to connect authentically with diverse audiences. Through theater exercises, mindfulness practices, and improv games, students are encouraged to think creatively, react spontaneously, and challenge their comfort zones—no prior experience in public speaking or theater is required. Students sharpen their listening, analysis, and synthesis skills through daily observation and critique, learning to give and receive thoughtful, intentional feedback to and from their peers. As culminating projects, students demonstrate their growth through formal speeches, self-written monologues, and collaborative scene work using memorization, teamwork, blocking, and acquired acting skills.

### **ONSTAGE: ACTING**

(6\_THE6110; 0.5 credits; Offered every year)

**Prerequisite:** Completion of Stage and Story or departmental approval.

Through theater games, improvisation, and scene work, students learn about the non-verbal and verbal art of acting, the structure of dramatic literature, and how to create a role. The emphasis is on ensemble work. Students present a short, memorized scene at the end of the semester. Students are evaluated on their degree of effort, commitment to the ensemble, and willingness to explore the creative imagination.

### **ONSTAGE: PLAYWRITING AND SCENE STUDY**

(6\_THE6130; 0.5 credits; Offered every year)

**Prerequisite:** Completion of Stage and Story or departmental approval.

This course engages the student as both writer and actor, exploring major components of playwriting and story, including action, dialogue, and character. The course includes: the completion and workshopping of writing assignments, providing and receiving feedback, reading works of established playwrights, and viewing/analyzing productions. Upon completion, students will have written, workshopped, and revised (at minimum) one monologue and one ten-minute play.

### **STAGECRAFT: TECHNICAL THEATER**

(6\_THE6120 ;0.5 credits; Offered every year)

**Prerequisite:** Completion of Stage and Story or departmental approval.

This is a workshop-style class where students learn foundational and advanced technical theater skills through hands-on creation and design. Students develop proficiency in shop tools, lumber, and general construction techniques to build props and set pieces; explore scene painting and set design; and dive deep into the theory and practice of stage lighting and theatrical sound design. Beginning with a review of lighting and sound systems and equipment, students progress through tutorials and practice exercises to master control consoles before working collaboratively to craft, plot, rig, test, and demonstrate complete light and sound designs for presentation and assessment. Throughout the course, students think critically about design choices, weighing considerations such as the intended purpose for the production, audience understanding, accommodations for all actors on stage, lighting

different skin tones, amplifying different voices, and honoring different artistic visions. Students of all ability levels are encouraged to join this course where workshop safety is of paramount importance, as is respectful communication.

**ADVANCED STAGECRAFT: DIRECTING**

(6\_THE6210; 0.5 credits; Offered every year)

**Prerequisite:** Completion of any Onstage or Stagecraft course, or departmental approval.

**NOTE:** This course may be repeated for credit.

This course builds on skills acquired through previous classes involving onstage performance training. It introduces students to the fundamentals of stage directing, navigating the full range of a director's technique and responsibilities from pre-rehearsal preparation through performance. Students learn how to collaborate and communicate with others, create and convey a shared vision, apply text analysis and principles of staging/composition, and draw upon research and design to conceive the "world of the play." Students engage practically through assignments, exercises, acting in each other's scene projects, and directing of a short play/scene.

**ADVANCED STAGECRAFT: DESIGN AND PRODUCTION**

(6\_THE6220; 0.5 credits; Offered every year)

**Prerequisite:** Completion of any Onstage or Stagecraft course, or departmental approval.

**NOTE:** This course may be repeated for credit.

This course builds on skills acquired through previous classes involving behind-the-scenes technical theater training. It introduces students to the fundamentals of designing and producing for the stage, from pre-rehearsal preparation through performance. Students learn how to collaborate and communicate with others, create and convey a shared vision, and apply technical skills to build the set, props, and more.

**MUSIC  
STUDIES**

**MUSIC STUDIES**

(6\_MUS5000; 0.125 credits; Offered every year)

**Prerequisite:** Concurrent enrollment in an ensemble music course.

**NOTE:** Course may be repeated for credit. Credit is earned but may not be applied to the Visual and Performing Arts graduation requirement. Music Studies lessons are half-hour long and meet once per rotation.

Music Studies provides individual music lessons meeting twice a rotation at a beginning to intermediate level. The subject matter is determined by the student's interest and background; possibilities include vocal and instrumental lessons, music theory, arranging, and composition. Music Studies students are expected to be enrolled in one of our ensemble classes and/or be actively involved in our extra-curricular performance program. This course is pass/fail.

**HONORS MUSIC STUDIES**

(6\_MUS5500; 0.25 credits; Offered every year)

**Prerequisite:** Concurrent enrollment in ensemble music course, and departmental approval.

**NOTE:** Course may be repeated for credit. Credit is earned but may not be applied to the Visual and Performing Arts graduation requirement. Honors Music Studies lessons are at least a half-hour long and meet two or more times per rotation. In addition, students must audition for the Senior District Festival or perform a solo or chamber piece in a school concert.

Honors Music Studies provides music lessons at an advanced level and has the expectation that the student takes their artistry to others. The subject matter is determined by the student's interest and background; possibilities are vocal and instrumental lessons, music theory, arranging, and composition. A student in Honors Music Studies is striving to dive deeply into their chosen subject and work outside of lessons is expected. Honors Music Studies students are expected to be enrolled in one of our ensemble classes and/or be actively involved in our extra-curricular performance program. This course is pass/fail.

## HEALTH & WELLNESS

### HEALTH AND WELLNESS 9

(8\_PEH1000; Offered every year)

Health and Wellness 9 provides students with information needed to make important decisions about health, wellness, and individual lifestyles. Topics covered include personal health and wellness, mental and emotional health, nutrition, personal safety, alcohol, diversity, sex education, First-Aid and CPR. Focus is placed on the individual student acquiring knowledge and taking responsibility for one's own health. This course is pass/fail.

### HEALTH AND WELLNESS 10

(8\_PEH2000; Offered every year)

Health and Wellness 10 provides students with information needed to make important decisions about health, wellness, and individual lifestyles. Topics covered include personal health and wellness, environmental health, physical activity, alcohol, drugs, and sex education. The topics covered in Grade 10, while similar to those covered in Grade 9, are discussed in more depth and detail. Focus is placed on the individual student acquiring knowledge and taking responsibility for one's own health. This course is pass/fail.

### STRENGTH AND CONDITIONING

(8\_PEH3000; Offered every year)

**Prerequisite:** Junior or senior standing.

**NOTE:** Course may be repeated.

This course introduces students to the principles and practices of strength and conditioning with an emphasis on long-term athletic development, movement competency, and personal well-being. Through a combination of classroom instruction and hands-on training, students will learn how the body responds to exercise, how to train safely and effectively, and how to design programs aligned with individual goals. Students will explore foundational topics including movement mechanics, strength training, speed and agility, energy systems, recovery strategies, and the role of nutrition, sleep, and mindset in performance and health. The course is appropriate for both athletes and non-athletes and is designed to promote lifelong physical literacy. This course is pass/fail.

## JUNIOR & SENIOR SEMINARS

### **FOR JUNIORS** COLLEGE COUNSELING SEMINAR

Led by a member of the college counseling team, small group college counseling seminars for juniors introduces students to important foundational topics as well as practical matters related to college planning. Topics that are typically covered include: getting to know the team and each other, letter to your future self, completing the college survey, how to research a college, how to choose a major, how to write your activities list, completing the Common Application, developing essay ideas and writing essays, how to navigate a college fair, how to choose a recommender, and making the most of summer.

### **FOR SENIORS** COLLEGE COUNSELING SEMINAR

Led by a member of the college counseling team, small group college counseling seminars for seniors are primarily focussed on the deadline driven process of applying to college. Topics that are typically covered include: Here are topics typically covered: introductions for new students, visiting admission representatives on campus, application deadlines and strategy: EA/ED etc, early commitment For athletes, meeting deadlines, getting essay feedback, and Common Application Details: FERPA Waiver, Supplemental Essays and Supplemental Recommenders.

### **DISCOVERY PROJECT SEMINAR**

Discovery Project Seminar is designed to help and support the graduating class through Discover Projects, which are a culminating activity to explore a passion that might enrich and inform a student's education, career and life. This seminar will focus on preparing for their professional careers by creating and building a resume, writing a cover letter, reviewing proper email etiquette, creating a LinkedIn page and learning how networking plays a role in strengthening their network and soliciting internships and jobs. Self advocacy is a theme throughout this seminar.