HOOSAC VALLEY HIGH SCHOOL

PROGRAM OF STUDIES
2024-2025

Administration
Colleen Byrd, Principal
Regina Diesz, Assistant Principal of Teaching & Learning
Erin Hattaway, Dean of Students

Student Services
Abigail Ruble, School Counselor A-L
Meaghan Rogers, School Counselor M-Z
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NONDISCRIMINATION POLICY

The district's policy of nondiscrimination will extend to students, staff, the general public, and individuals with whom it does business; No person shall be excluded from or discriminated against in admission to a public school of any town or in obtaining the advantages, privileges, and courses of study of such public school on account of age, race, color, sex, gender identity, religion, national origin, sexual orientation, disability or homelessness.

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GRADUATION REQUIREMENTS

SUBJECT AREA	CREDITS
English	20 Credits
*Social Studies, including US History	15/20 Credits
Mathematics, including Algebra II	20 Credits
*Science	15/20 Credits
Computers	2.5 Credits
Health and Wellness	10 Credits
Visual and Performing Arts	5 Credits
Electives	20+ Credits
Total	**112.5**

1. *Students must take three years of Social Studies and four years of Science or the reverse, or three and one half years of both to satisfy the graduation requirements for these areas.
2. Of the required history courses, students must take and pass a United States History course.
3. Students are required to take Health and Wellness each year.

MCAS GRADUATION REQUIREMENTS

- Massachusetts Public High School Students are required to pass the ELA, Math, and Science MCAS in order to earn a high school diploma. Please find information on the scores required to pass each test here: Massachusetts Graduation Requirements and Related Guidance . Certificates of Attainment will be granted to students who meet all other graduation requirements except passing scores on the MCAS.

MA COLLEGE ADMISSIONS REQUIREMENTS

The state of Massachusetts sets specific admissions requirements for admission to colleges in the state university system. These requirements are separate from high school graduation requirements, and may differ from that of Hoosac Valley High School. Please see the following link for more information: Admissions Standards.

COURSE LEVEL INFORMATION

College Preparatory (CP): Students work with challenging topics and are expected to complete assignments outside of class time.
Honors (H) : courses cover more standards and content than CP courses. Students often work independently in school and at home.
Advanced Placement (AP) gives high school students an introduction to college-level classes in high school. These courses may award college credit and are academically demanding. **The AP Exam is optional.**

All students must enroll in a minimum of 27.5 each year to be considered a full time student.
Full-year courses= 5 Credits Half-Year Courses= 2.5 Credits

PATHWAYS

We believe in the approach that college and career pathways are the best way to engage students and to challenge them to participate in experiential learning outside the classroom – either in fields that already interest them or in fields that expose them to a variety of opportunities. Hoosac Valley High School is a designated Innovation Pathways (IP) school and has created seven pathways for our students to explore:

- Art and Entertainment
- Biomedical Science and Healthcare (IP)
- Business & Entrepreneurship
- Education
- Engineering & Technology
- Environmental Studies (IP)
- Sports Medicine, Health, & Wellness

COURSE DESCRIPTIONS: ENGLISH

ELA 9 CP — 5 Credits

This course provides students with the opportunity to refine essential writing skills in the area of organization, sentence structure, vocabulary and mechanics. The study of various genres of literature enables the student to develop insight, analysis and critical thinking skills. Strategies are incorporated to foster comprehension and encourage constructive response either personal or literary. They also encourage the growth of skills needed by students to become independent readers. Throughout this course, students will explore issues of multiculturalism and diversity. Grammar is reviewed and taught. A research paper using MLA format will also be covered.

ELA 9 H — 5 Credits

Prerequisite: Successful completion of ELA 8

This course is offered for highly motivated students who, through discussion and writing, show exceptional insight into literary characters and situations in various genres. Throughout this course, students will explore issues of multiculturalism and diversity. Students' writing should reflect analytical and critical thinking, good sentence structure, vocabulary, and mechanics. Grammar is reviewed and introduced as needed. A research paper using MLA format will also be covered.

ELA 10 CP — 5 Credits

Prerequisite: Successful completion of ELA 9

This course provides students with essential writing skills with emphasis on organization, outlining, paragraphing, sentence structure, vocabulary and mechanics. Literature is the basis for analyzing author's' techniques, understanding literary terms, following logical plot developments, and recognizing themes. Grammar is taught as needed. Throughout this course, students will explore issues of multiculturalism and diversity.

ELA 10 H — 5 Credits

Prerequisite: Successful completion of ELA 9

This tenth grade course is offered to the student who has a good understanding of elementary concepts in literature and language and is ready for abstract and more sophisticated aspects. Analytical and critical papers regarding theme, setting, and characters are among those required. Students' writings should reflect good sentence structure, diction and mechanics. Planning and outlining essays and critical papers are introduced and developed. Grammar is reviewed as needed. Four to five outside reading assignments are required. Throughout this course, students will explore issues of multiculturalism and diversity.

ELA 11 CP and ELA 11 H — 5 Credits

Prerequisite: Successful completion of ELA 10

This course provides a survey of the development of American literature with an emphasis on major writers. Improvement and growth in writing skills is developed through the writing of critical and analytical papers, including research papers. Grammar is reviewed in the context of SAT preparation. Throughout this course, students will explore issues of multiculturalism and diversity. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character.

ELA 12 CP and ELA 12 H — 5 Credits

Prerequisite: Successful completion of ELA 11

The broad outlines of English literature from its beginning through the modern period supply the student with a basis for appreciating and understanding the major writers. Emphasis is also placed on studying and comprehending the development of the English language through its various stages. Each unit incorporates a comprehensive historical background essential for the study and knowledge of a particular time period. Several multicultural writers are recognized to understand better the pluralistic nature of Britain, to appreciate connections between cultures, and, ultimately, to view our own nation's diversity as a rich source. Through critical papers, oral reports and discussions, students should show an appreciation of the literary works studied as contributions to our cultural heritage. Throughout this course, students will explore issues of multiculturalism and diversity.

AP ENGLISH LANGUAGE AND COMPOSITION 5 Credits

Prerequisite: Successful completion of ELA 10

AP English Language and Composition is an introductory college-level composition course. Students cultivate their understanding of writing and rhetorical arguments through reading, analyzing, and writing texts as they explore topics like rhetorical situation, claims and evidence, reasoning and organization, and style.This course engages students in becoming skilled readers of prose written in a variety of rhetorical contexts, and in becoming skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects, as well as the way genre conventions and the resources of language contribute to effectiveness in writing.

AP ENGLISH LITERATURE 5 Credits

Prerequisite: Successful completion of ELA 11

AP English Literature and Composition is an introductory college-level literary analysis course. Students cultivate their understanding of literature through reading and analyzing texts as they explore concepts like character, setting, structure, perspective, figurative language, and literary analysis in the context of literary works. This course will prepare students for the Advanced Placement test in English through developing critical standards for independent appreciation of any literary work. Analysis includes an awareness of language, understanding of the writer's craft and an increased sensitivity to literature as a shared experience based on the writings of British, American, and World authors.

DRAMA AND THEATRE ARTS 2.5 Credits

This semester-long course is an introduction to the theatre arts. Students will become acquainted with skills such as improvisation and ensemble building, playwriting, and scene work. Students will complete projects based on student interest gained through an appreciation of the theatre arts.

MOVIES AND MUSIC THROUGH THE AGES 2.5 Credits

In this semester-long course, students will assume the role of a movie and music critic and dive into the work of history's most acclaimed recording artists and filmmakers.

COURSE DESCRIPTIONS: SOCIAL STUDIES

U.S. HISTORY I CP, H 5 Credits

Prerequisite: Leveling based on teacher recommendation

The Revolution through Reconstruction, 1763-1877

Students examine the historical and intellectual origins of the United States during the Revolutionary and Constitutional eras. They learn about the important political and economic factors that contributed to the outbreak of the Revolution, as well as, the consequences of the Revolution, including the writing and key ideas of the U.S Constitution. Students also study the basic framework of American democracy and the basic concepts of American government such as popular sovereignty, federalism, separation of powers, and individual rights. Students study America's westward expansion, the establishment of political parties and economic and social change. Finally, students will learn about the growth of sectional conflict, how sectional conflict led to the Civil War, and the consequences of the Civil War, including Reconstruction. Emphasis will be placed upon writing, reading, research, oral preparation as well as appropriate computer usage.

Honors is a challenging program that requires a high level of writing skills linked to a high level of reading comprehension. Library research, handouts, computer skills as well as use of paperbacks are fundamental in course application. Students will be encouraged to present papers, prepare orals and engage in historical projects.

U.S. HISTORY II CP, H 5 Credits

Prerequisite: Leveling based on teacher recommendation

The End of the Great War/1918 to the Present

Students will study the goals and accomplishments of such eras of the Jazz Age, The 1930s New Deal, Students will also learn about the various factors that led to America's entry into World War II as well as the consequences of World War II on American life. Finally, students will study the causes and course of the Cold War, important economic and political changes during the Cold War, including the Civil Rights movement, and recent events and trends that have shaped modern-day America. Students will be expected to draw conclusions based upon research and present them in oral or written form with intelligent positions.

WORLD HISTORY CP, H 5 Credits

This course, beginning with the Age of Reason and ending with the present day, will cover a host of historical concepts such as war, revolution, reform, balance of power, economic materialism, socialism, capitalism, along with a construct that evaluates the human struggle with power for the "top down" as well as "bottom up." Emphasis will be placed upon writing, reading, research, oral preparation as well as appropriate computer usage, Historical projects will be encouraged.

AP HUMAN GEOGRAPHY 5 Credits

This course is equivalent to an introductory college-level course in human geography. The course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine socio economic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications. The curriculum reflects the goals of the National Geography Standards (2012).

Upon successful completion of the course, students will be able to:

- Interpret maps and analyze geospatial data;
- Understand and explain the implications of associations and networks among phenomena in places;
- Recognize and interpret the relationships among patterns and processes at different scales of analysis;
- Define regions and evaluate the regionalization process; and
- Characterize and analyze changing interconnections among places.

AP PSYCHOLOGY 5 Credits

This full-year course will introduce the student to the systematic and scientific study of behavior and mental processes of human beings and other animals. Students will be exposed to the major figures, theories, and subfields (consciousness, learning, personality, cognition, etc.) within psychology through various instructional methods. Students will also familiarize themselves with the types and

methods of psychological research, identify and distinguish between the distinct aspects of human behavior and cognition, identify various psychological disorders and treatments, and critically analyze and review the latest advances in the field. The aim of this course is to provide an educational experience equivalent to that obtained in most introductory college psychology courses.

AP UNITED STATES HISTORY . 5 Credits

This course is offered to select 10th and 11th grade students. The aim of this course is to provide the student with a learning experience comparable to a college introductory course in American History. To receive Advanced Placement college credit, the student will be required to take and pass the national A.P. exam in May. This course will use chronological and thematic coverage of topics beginning with precontact of the Americas and include topics such as the Colonial Period, the pre-Civil War era, the Civil War and Reconstruction, Industrial America and Immigration, the World Wars, Depression and New Deal, domestic and foreign affairs of the Cold War period and concerns of the Post Cold War era. Requirements will include several outside readings per term, a research paper as well as other papers, oral presentations, panel discussions and debates. This is a rapid paced, college-level seminar course.

AP WORLD HISTORY 5 Credits

This is a year-long introductory college-level modern world history course. Students will investigate significant events, individuals, developments, and processes from 1200 to the present. Students will develop and use the same skills,

practices, and methods employed by historians: identifying, explaining, and contextualizing historical developments and processes, analyzing the foundations and arguments of primary and secondary sources, making historical connections, and developing historical arguments. The course is composed of nine units, organized chronologically and broken down into topics, that are tied together by six fundamental historical themes.

20TH CENTURY LATIN AMERICA AND THE US (11th and 12th Grade) 2.5 Credits

During the Cold War, Latin America was a decidedly "hot zone." This course considers this phenomenon as a result of internal and external pressures, including political and socio economic instability, a deep tradition of revolutionary and socialist activism, and the region's *conflictive relationship with the United States.* The class examines dramatic moments of the Latin American Cold War, such as the overthrow of Jacobo Arbenz in Guatemala, the Cuban and Nicaraguan revolutions, and the Dirty Wars in Chile and Argentina. It also examines less heralded aspects of the Latin American Cold War, such as its important role in fostering transhemispheric solidarities, the creative possibilities of Cold War cultural production, the emergence of a youth counterculture, and the many attempts by Latin Americans across the political spectrum to reject the premise of the Cold War altogether.

ABNORMAL PSYCHOLOGY 2.5 Credits

Abnormal psychology involves understanding the nature, causes, and treatment of different mental disorders. This course will be a broad survey of mental health problems, including anxiety disorders, depression, psychosis, eating disorders, and personality disorders. Students will develop critical thinking skills as applied to theories, assessment, and treatments related to each disorder.

ADOLESCENT DEVELOPMENT 2.5 Credits

This course is an introduction to the theoretical concepts and approaches in child and adolescent development. Developmental processes through maturation and learning will be examined. Different theoretical perspectives (biological, cognitive, social, behavioral, emotional, and evolutionary) will be explored and relevant research discussed.

AMERICAN POLITICAL SYSTEMS 2.5 Credits

The US Government Elective will provide students with the political knowledge and reasoning processes to participate meaningfully and thoughtfully in discussions and debates that are currently shaping American politics and society. It is important to note that this course is not a history course; it is a political science course that studies the interconnectedness of the different parts of the American political system as well as the behaviors and attitudes that shape this system and are the byproduct of this system. Students will revisit the Founding Documents of the United States and Massachusetts with an emphasis on understanding their relevance and impact on policies and politics in the present. They study these topics by exploring and researching guiding questions such as “What does it mean to be an informed citizen?” and “How involved should the United States government be in world affairs?”

CURRENT EVENTS 2.5 Credits

Many adolescents don’t know a lot about what’s going on in the world today. Faced with a barrage of information from a vast array of media sources, it is often confusing for students to gain a competent understanding of world events. This class will focus on the social, political, cultural, economic and geographical aspects of contemporary events in relation to the students’ lives and the world they live in today. The course will also provide the students with the opportunity to be exposed to current events on the local, county, state, and
international levels and increase their understanding of today’s world. Students will read, research, explore diverse current events from various perspectives and be prepared to discuss them in a seminar type setting.

GENDER STUDIES (10-12th Grade) 2.5 Credits

This interdisciplinary course explores the field of inequity and difference. Where do we see inequity? How prevalent is it? There is a focus on women and the LGBTQ community as well as an exploration of cultural concepts. In addition,

students will be exposed to positive examples of individuals who chose to challenge oppression and who, while perhaps forgotten by history, are to be recognized
and celebrated for his or her contributions. We will also study historical events that have affected members of this community and explore these events through the lens of injustice.

GLOBAL CITIZENSHIP 2.5 Credits

An increasingly globalized and fast-paced world has raised questions about what constitutes meaningful citizenship as well as about its global dimensions for individual and group identities. This course offers an opportunity for students to explore the concepts of global citizenship and identity from varying perspectives. In addition, this course will connect our ideas about global citizenship to historic and current global human movements and their impact on our current worldview. The course focuses on three essential questions in line : 1) Who are we, both as individuals and global citizens?, 2) What/who may have been influencing the person we are and whom we wish to become in this world?, and 3) What does it entail to be a global citizen and which difference can I make?

HISTORY OF FOOD 2.5 Credits

What did you eat today? Maybe you had sushi, or pad thai, or tacos, or a burger. Maybe you had instant noodles or cold cereal. Whatever it was, there is a cultural, social, economic or technological story behind it. What we eat is a reflection of larger societal processes. In this course we will explore the evolution of food over the course of human history. In doing so we will analyze how agricultural revolutions, technological advancements, trade networks, colonialism, war, globalization, and other key historical developments have shaped the way we live and eat. The course will culminate with a final research project in which you will analyze the historical, cultural, and geographic background of your favorite dish.

HISTORY OF THE HOLOCAUST (11th and 12th Grade) 2.5 Credits

The History of the Holocaust is a half-year elective that explores the possible causes of the Holocaust. The actual events will also be studied as well as the effects. Films will be utilized in this class as well as primary and secondary reading sources. In addition, Holocaust denial and the role of responsibility will be discussed. Students must be comfortable with class discussion. This class deals with sensitive, and sometimes graphic, themes.

POP CULTURE 2.5 Credits

The last century has been marked by a shift in social practices and stark changes to the cultural landscape. How has that been reflected in popular culture? Has pop culture helped shape these changes? How has popular culture responded to major historic events? Has it influenced any? Does popular culture create generation gaps or bridge them? What does it mean to spend most of our waking hours absorbing media that did not exist for our grandparents? How has this affected our mental environment and thought processes? What other impacts has popular culture had on our society and social relations?

These are examples of the types of questions that this class will examine as we engage in critical thinking about popular culture. We will use popular music, literature, art, film, tv, and advertisements as primary sources to help analyze how American perceptions of race, ethnicity, gender, and class have shifted over the last 100 years.

PSYCHOLOGY 2.5 Credits

This course will introduce you to the fundamental principles of psychology and to the major subjects of psychological inquiry. It has been designed to not only provide you with the tools necessary for the study of psychology but to present you with a sampling of the major areas of psychology research.

COURSE DESCRIPTIONS: MATHEMATICS

ALGEBRA I CP - Grade 8 5 Credits

Prerequisite: Teacher recommendation

This course is designed for students who rate high in mathematical ability, aptitude and interest. The course requires an excellent performance in 7th grade math and a teacher recommendation is required. This course proceeds at a very rapid pace and is designed to bridge the gap between middle school and high school.

ALGEBRA I CP, H - Grade 9 5 Credits

This course is designed to bridge the gap between middle school and high school. This course will cover the Algebraic concepts of linear equations, functions, inequalities and systems, exponents and exponential functions, quadratic expressions and equations. This course provides a sound foundation for advanced study in mathematics. An emphasis on MCAS prep will also be addressed. Teacher recommendation is required.

GEOMETRY CP, H 5 Credits

Prerequisite: Successful completion of Algebra I

This course is designed for students who rate high in mathematical ability, aptitude and interest. This course proceeds at a rapid pace and includes topics of geometry such as basic definitions, reasoning and proof, parallel and perpendicular lines, congruency, similarity, relationships in triangles, quadrilaterals, area, volume and surface area. Students must be demonstrated problem solvers, self-motivated learners, independent workers, and have excellent reading skills.

INTEGRATED MATH CP 5 Credits

Prerequisite: Successful completion of Algebra I and Teacher Recommendation

This course is designed for students who would benefit from additional support in algebraic concepts before proceeding to geometry in the second half of the year. The first semester focuses on strengthening mathematical skills while the second semester continues on to topics in geometry included on the Massachusetts Math MCAS exam.

ALGEBRA II CP 5 Credits

Prerequisite: Successful completion of Geometry or Integrated Math

This course includes the Algebra II concepts of linear relations and functions, systems of equations and inequalities, quadratic functions and relations, polynomial functions, inverse and radical functions and relations.This course provides a sound foundation for advanced study in mathematics. An emphasis on MCAS and SAT prep will also be addressed. Students successfully completing Math I, Math II and Math III may qualify for Algebra II based on teacher recommendation.

ALGEBRA II H 5 Credits

Prerequisite: Successful completion of Geometry

This course includes the Algebra II concepts of linear relations and functions, systems of equations and inequalities, quadratic functions and relations, polynomial functions, inverse and radical functions and relations.This course provides a sound foundation for advanced study in mathematics. An emphasis on MCAS and SAT prep will also be addressed.

STATISTICS AND PROBABILITY 5 Credits

Prerequisite: Successful completion of Algebra II CP

Topics that will be covered include: statistics, sample data, analyzing data, probabilities of simple and multiple events, conditional probability, independence, random variables and probability functions, normal distribution binomial distribution, poisson distribution, sampling, estimation techniques, hypothesis, linear correlation and regression, the Chi-Square distribution, and analysis of variance.

PRE-CALCULUS 5 Credits

Prerequisite: Successful completion of Algebra II and teacher recommendation

This course is intended for students who have a thorough knowledge of Geometry and Algebra. Topics include: power, polynomial, rational, exponential, logarithmic, and trigonometric functions from a Calculus perspective. This course will also focus on analytical Trigonometry and matrices.

CALCULUS CP 5 Credits

Prerequisite: Successful completion of PreCalculus or College Algebra and teacher recommendation

This course is designed to prepare students to be highly successful in a college level Calculus course. General theory, techniques, and applications of Calculus including limits, continuity, derivatives, definite integrals, exponential and

logarithmic functions, trigonometric functions, and techniques of integration will be explored. A strong background in Algebra, Geometry, and College Algebra or Honors Pre-Calculus along with a teacher recommendation is needed in order to take this course.

COLLEGE ALGEBRA CP — 5 Credits

Prerequisite:Successful completion of Algebra II

This course begins with a review of Algebra II concepts including: linear, quadratic, polynomial, inverse, and radical functions and relations. Additional algebraic concepts of exponential, logarithmic, and rational functions and relations will be explored in the first half of the year and trigonometric functions, identities and equations will be covered in the second half of the year. An emphasis on SAT prep will also be addressed.

AP CALCULUS — 5 Credits

Prerequisite: Successful completion of Pre-Calculus H or teacher recommendation

This course is for students who intend to take the advanced placement calculus test for college credit. Students should have a thorough knowledge of algebra, geometry, trigonometry and elementary functions in order to succeed in this college level course. General theory and techniques of calculus are studied, along with their applications.

AP STATISTICS — 5 Credits

Prerequisite: Successful completion of Algebra II or teacher recommendation

This course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding. The goals of AP Statistics are for students to describe patterns and departures from patterns; plan and conduct a study; explore random phenomena using probability and simulation; and estimate population parameters and test hypotheses.

PERSONAL FINANCE — 5 Credits

Prerequisite: Grade 12

This course is designed to prepare students for the choices and challenges of today's financial markets. Giving the students a better understanding of personal finance will help them move into adulthood making more informed monetary decisions. Students will search and assess college and career opportunities, identify and prioritize their personal money management goals, develop personal spending and savings plans, comprehend the impact of time on the value of money, and understand the cost of using credit and protecting assets.

COURSE DESCRIPTIONS: SCIENCE

ENVIRONMENTAL SCIENCE — 5 Credits

Prerequisite: Leveling based on teacher recommendation.

Environmental Science is an introductory core full-year course. It is designed to provide students with the tools needed to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human made, to evaluate the risks associated with these problems and to examine alternative solutions. Its major objective is to introduce the student to the concepts of ecology and evolution in the life sciences as well as using Earth's systems sciences.

BIOLOGY CP, H — 5 Credits

Prerequisite: Leveling based on teacher recommendation.

Biology is a core science course. Its major objective is to introduce the student to the concepts of biology by investigating the following disciplines of this science: cell biology, taxonomy, genetics, phylogeny, anatomy, ecology, evolution, basic

chemistry, etc. The student considering this course should have demonstrated an interest and ability in previous science courses. Objectively, the ability to express oneself concisely, the safe and proper use of lab equipment, and a knowledge of the metric system are skills which the student should have upon entering this course.

CHEMISTRY CP, H

5 Credits

Prerequisite: Leveling based on teacher recommendation.

Chemistry is the study of matter and its properties. This course is intended for students who may be majoring in science or a science related field in college, but who are not certain of their choice of major.

This course is a comprehensive course that encompasses all of the major branches of chemistry and has as its central theme the analysis of the descriptive and quantitative behavior of electrons. The student considering this course should have demonstrated an interest and ability in previous science courses. Objectively, the ability to express oneself concisely, the safe and proper use of lab equipment, and a knowledge of the metric system are skills which the student should have upon entering this course.

PHYSICS

5 Credits

Prerequisite: leveling based on teacher recommendation.

The two major areas of study in this course are: (1) Newtonian mechanics (2) Energy (including work and power) . The student is expected to perform effectively in the laboratory as well as in the classroom as emphasis is placed on laboratory experiences. Much of the course content deals with problem solving and the determination of physics principles from laboratory data. Students should have a good insight into basic mathematical relationships.

AP BIOLOGY

5 Credits

Prerequisite: 90 or greater in Chemistry CP and Human Body Systems (if taken) or 85 or greater in Chemistry H and Human Body Systems (if taken) and a previous science teacher's recommendation.

AP Biology is an elective senior year science. This course is the equivalent of a college level biology course.

AP CHEMISTRY

5 Credits

Prerequisite: Chemistry

This course is structured around the nine big ideas articulated in the Chemistry curriculum framework provided by the College Board. A special emphasis will be placed on the seven science practices, which capture important aspects of work that scientists engage in, with learning objectives that combine content with inquiry and reasoning skills. Students are expected to spend extensive time studying in groups, solving problems, and doing laboratory work. AP Chemistry aims to provide students with the framework, factual knowledge, and analytical skills necessary to deal critically with the theoretical aspects of chemistry. The science practices for AP Chemistry are designed to get the students to think and act like scientists by applying the seven Science Practices. This course is the equivalent of a college level chemistry course. Some colleges and universities grant credit for this course upon successful completion of the Advanced Placement Exam given in May.

AP PHYSICS

5 Credits

Prerequisite: Algebra I and Geometry. Concurrent Courses: Algebra II or an equivalent course

This is an algebra-based introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills.

CONSERVATION AND STEWARDSHIP

2.5 Credits

In this course students spend an immense amount of time in an outdoor setting. If you want to spend time outside… This course is for you! The course content focuses on region-specific environmental conservation outlining the protection, preservation, management, and restoration of this natural environment and the ecological communities that inhabit them. On-site outdoor experiences included in this course include maintaining the nature trail and school garden. Additional

off-site outdoor experiences may include an overnight camping trip on Mount Greylock and additional excursions to places like RambleWild or Red Shirt Farm.

FOOD SYSTEMS SCIENCE 2.5 Credits

The food system spans the activities, people and resources involved in getting food from “field to plate”. Along the way, it intersects with aspects of public health, equity and the environment.There is a growing concern for food system issues. Widespread problems such as chronic illness, infectious disease, social inequality, animal welfare harms, environmental degradation, and the concentration of economic power have ties to the food system. Recognizing these connections can empower people to become not only informed consumers, but also food citizens who can engage in many facets of the food system, from growing their own food to advocating for policies. In this course you will be learning about food systems through hands-on projects and “get your hands dirty” school garden maintenance. You will also harvest fruits and vegetables from the garden and prepare “farm to table” menus and meals!

INTRODUCTION TO ENGINEERING 2.5 Credits

This is a one-semester, project-based course that will introduce students to problem-solving in real world situations through the use of hardware and software. Students will work with Arduino systems and learn circuitry, programming, and mechanical engineering. Grades for this course are pass-fail.

OUTDOOR ADVENTURE SKILLS 2.5 Credits

Prerequisite: Outdoor Leadership, Conservation and Stewardship, OR Teacher Approval

This course develops technical skills in four adventure program areas: backcountry travel, paddling, rock climbing, and winter recreation. While equipment needed for these adventures will be provided, students must be prepared and will be expected to participate fully in an outdoor setting through all seasons and weather events. Students observe, imitate, and practice technical skills with the support of the HVHS teacher as well as additional experts in each program area. This course focuses on experiential learning directing tapping into competencies in lifelong learning, communication, and critical thinking in an outdoor setting. Students must participate in four major field trips in order to fulfill 2.5 science elective credits. Due to the nature of these programs the class size is limited to 9 students.

OUTDOOR LEADERSHIP 2.5 Credits

In this course students spend an immense amount of time in an outdoor setting. If you want to spend time outside… This course is for you! However, students must be prepared in proper clothing and outerwear for ALL weather conditions! Students can leave additional footwear and outer layers in the classroom as necessary. The course content focuses on the skills necessary for effective outdoor recreation leadership, environmental education, and ecology. Students will learn to work together through team building exercises, including participation in low and high ropes courses. They will also learn outdoor recreation skills such as trip planning, first aid, navigation, and "Leave No Trace". Most class sessions are in an outdoor setting on school property. Other outdoor excursions may include a paddling or rafting experience and a backpacking/camping, which promotes application of learned skills in a wilderness setting.

STEM 2.5 Credits

High school STEM allows upper grade level students to engage ENGINEERING DESIGN problems. Students will be introduced to a variety of science and engineering practices in four core ideas of technology/engineering:

- **Engineering design** supports students’ understanding of how engineering design is applied to complex societal challenges as well as developing their skills in defining design problems and developing solutions.
- A focus on **materials, tools, and manufacturing** supports students in understanding how manufacturing makes use of and can change material properties to create useful products.
- **Technological system**s help students to learn how complex design systems work, particularly those they use every day.
- **Energy and power technologies** support students in understanding how humans manipulate and use energy to accomplish physical tasks that would otherwise be impossible or difficult.

Science impacts the technology of yesterday, today, and the future. Students apply the concepts of physical sciences, environmental science, and nanotechnology to STEM activities and projects, including using Computer Aided Design (C.A.D) and the 3D printer.

PLTW BIOMEDICAL SCIENCES- available for all students and designed for those who have an interest in pursuing a career in the medical field

PRINCIPLES OF BIOMEDICAL SCIENCES 5 Credits

PBS introduces Biomedical Science through hands-on projects and problems. Students investigate concepts of biology and medicine as they explore health conditions and infectious diseases including heart disease, diabetes, sickle-cell disease, and hypercholesterolemia.

In this course, students explore concepts of biology and medicine as they take on the roles of different medical professionals to solve real-world problems. Over the course of the year, students are challenged in various scenarios including investigating a crime scene to solve a mystery, diagnosing and proposing treatment to patients in a family medical practice, tracking down and containing a medical outbreak at a local hospital, stabilizing a patient during an emergency, and collaborating with others to design solutions to local and global medical problems. The activities and projects introduce students to human physiology, medicine, and research processes while providing an overview of all the courses in the Biomedical Sciences program including laying the scientific foundation for subsequent courses.

INTRODUCTION TO HEALTHCARE 2.5 Credits

Introduction to Healthcare Science is the foundational course that will enable students to receive initial exposure to the many healthcare careers as well as employability, communication, and technology skills necessary in the healthcare industry.

HUMAN BODY SYSTEMS 5 Credits

Human Body Systems will focus on enabling students to develop an understanding of the relationships between the structures and functions of the human body and how the systems interact with each other. The year begins with students learning and using anatomical terminology to identify and describe the locations of body parts. Students will continue to use these terms as we explore the components of the human body and how they work. Body systems that will be studied include, integumentary, skeletal, muscular, nervous, digestive, respiratory, cardiovascular, endocrine, lymphatic, urinary, and reproductive. Students will explore the microscopic and macroscopic anatomy and physiology of each system, and discuss how the system maintains homeostasis. Lastly, students will learn about health-related careers and technology, including the tools used to study anatomy and physiology by playing the roles of biomedical professionals to help solve medical mysteries. Throughout the course, students will participate in lab work to deepen their understanding and make connections to the topics discussed in the text and lecture.

MEDICAL INTERVENTIONS 5 Credits

Students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

MEDICAL TERMINOLOGY 2.5 Credits

For those who are looking to enter a medical field, having a firm grasp on medical verbiage, roots and meanings will give you a leg up as you progress in your career. In this class, students will learn language used specifically in the medical and health fields including anatomical structures, procedures, conditions, processes and treatments.

SPANISH I 5 Credits

This is an introductory course to Spanish, which provides a thematic and communicative approach to the language. The course will emphasize on speaking, reading, writing and culture. The goal of the program is for a student to develop knowledge based upon the Massachusetts standards for communication, culture, connections, comparisons, and communities.

SPANISH II 5 Credits

Prerequisite: Successful completion of Spanish I

This is the follow up course to Spanish I. Students will build on the skills learned in Spanish I. The course will emphasize on speaking, reading, writing, and culture. The goal of the program is for a student to develop knowledge based upon the Massachusetts standards for communication, culture, connections, comparisons and communities. Students will expand their knowledge and understanding of Hispanic history, geography, music, art and film.

SPANISH III 5 Credits

Prerequisite: Successful completion of Spanish II

This is the follow up course to Spanish II. Students will build on their proficiency by using spoken and written Spanish to provide and obtain information, express feelings and emotions and express opinions. Students will demonstrate ability to interpret spoken and written language by honing their listening and reading skills. Students will continue to increase their knowledge and understanding of Hispanic history, geography, music, art, current events and film.

SPANISH IV H 5 Credits

Prerequisite: Successful completion of Spanish III

This is the follow up course to Spanish III. Students will build on the skills learned in Spanish III. The course will emphasize on speaking, reading, writing, and culture. The goal of the program is for a student to develop knowledge based upon the Massachusetts standards for communication, culture, connections, comparisons and communities. Students will expand their knowledge and understanding of Hispanic history, geography, literature, current events, music, art and film.

CONVERSATIONAL SPANISH 5 Credits

Prerequisite: Successful completion of Spanish II

Do you want to practice your conversational Spanish? This is the course for you. The course will include daily topics of discussion to improve proficiency. Students will be required to use the language daily. Students will be **required** to give oral presentations to a variety of audiences.

LATIN AMERICAN MUSIC 2.5 Credits

Come develop an understanding and appreciation of the rich culture of the music of Latin America. Music is ingrained in all facets of life in Latin America and is an integral part of native traditions. We will explore the roots, characteristics and influences of the music to better understand the people of Latin America. Upon completion of the course, students will be able to recognize styles of music and their origins.

MODERN LATIN AMERICAN HISTORY AND DICTATORS 2.5 Credits

Modern Latin American History will be taught in English but some Spanish will be used in class as necessary. The history of Latin America is extraordinary as well as extensive. This year we will focus on Modern Latin American History Post-WWII. With an emphasis on the rise of Dictators in Latin America and the Caribbean during the 60s, 70, and 80s.

2D DESIGN 2.5 Credits

This advanced-level course in two-dimensional art places emphasis on developing a greater depth of understanding of art, and application of the Elements of Art and Principles of Design to their work through a variety of media. Studio experiences include drawing, printmaking, and painting. Each student will demonstrate progress over time by developing a body of work and organizing a portfolio. Students will continue to master their ability to respond, to analyze, and to interpret their own artwork and the work of others through discussions, critiques, and writings.

3D DESIGN 2.5 Credits

This advanced-level course in three-dimensional art places emphasis on developing a greater depth of understanding of art, and application of the Elements of Art and Principles of Design to their work through a variety of media. Materials explored in the art studio include but are not limited to; clay, plaster, wire, wood, and foil. Each student will demonstrate progress over time by developing a body of work and organizing a portfolio. Students will continue to master their ability to respond, to analyze, and to interpret their own artwork and the work of others through discussions, critiques, and writings.

ADVANCED CERAMICS 2.5 Credits

Prerequisite: Ceramics

This ceramic course gives students an opportunity to use prior knowledge and experience to gain a deeper and broader understanding of clay. Through both hand building and potter's wheel applications, students will begin to develop their artistic voice through their projects. Focus will be placed on the elements and principles of art in both construction and appreciation of artwork.

ADVANCED STUDIO ART 2.5 Credits

Prerequisite: Intro to Art, and 2D Design or 3D Design (or permission from teacher)

This advanced level course is designed for students who are seriously interested in the practical experience of art. Advanced Studio Art students are expected to become independent thinkers and to apply their knowledge (gained from previous introductory and advanced courses) of Elements and Principles of Art to their work (regardless of media) in order to demonstrate mastery of advanced level design skills and concepts. Ongoing critical analysis through group and individual critiques provide students with opportunities to learn to analyze their own work and their peers' work. Students will be required to submit portfolios (10-15 pieces) for evaluation at the end of the semester.

ARDUINO: MICRO-CONTROLLERS 2.5 Credits

A course merging coding and electronics through hands-on Arduino microcontroller projects. Explore different electronic components like RFID Card readers, light sensors, stepper motors, LEDs, and more in various projects such as burglar alarms and fart detectors. After learning the basics, create your own invention.

BAND 5 Credits

Band is open to all interested students with previous ensemble experience. Students with no previous band experience may be allowed to take band with the director's approval. Music played in the band will represent a wide variety of styles ranging from traditional marches to progressively graded transcripts from all periods of music. Emphasis is placed on music reading, interpretation and individual development of instrumental technique. Students will also be required to do assignments pertaining to music theory as it relates to band such as: sight reading, scales, and playing tests. Participation in the marching band for home football games and parades is required and is a regular part of class work primarily in the fall. Preparation for public performances is a regular part of class work. This class may be repeated for credit.

CERAMICS 2.5 Credits

This course serves as an introduction to the exploration of the art of clay. Studio experiences in the classroom will give students opportunities to learn techniques such as; pinch work, coiling, slab, sculpting, and wheel throwing. Students will also experiment with different glazing techniques such as; under-glozing, sgraffito, marbling, and traditional brush application. Focus is placed on design and craftsmanship. Students will demonstrate their ability to respond, analyze and interpret their own artwork and the work of others through discussions, critiques, and writings.

COMPUTERS 101 2.5 Credits

Computers 101 is a project-based introductory computer course that encompasses a wide span of essential knowledge and skills needed to succeed in the 21st century. Units of study include computational thinking, Scratch programming, internet safety and security, digital tools, computing devices, and the evolving relationship between humans, computers, and society.

COMPUTERS 102 2.5 Credits

Prerequisite: Successful completion of Computers 101

Unlock the world of computer science with the Beauty and Joy of Computing class. Dive into programming and abstraction, emphasizing algorithms and Snap!, a user-friendly language crafted for beginners. Explore the social impact of computing, data manipulation, and purpose-driven program development. This course not only demystifies complex concepts but makes them enjoyable for all. Join us to turn curiosity into coding prowess, as we navigate the digital landscape together, ensuring every student discovers the beauty and joy that computing has to offer. This course is recognized by the College Board as preparation for the AP® Computer Science Principles (AP CSP) exam.

COMPUTERS 103: 2.5 Credits

Prerequisite: Successful completion of Computers 102

This course focuses on an object-oriented approach to problem-solving using Java. It includes the study of common algorithms and the use of some of Java's built-in classes and interfaces for basic data structures. This course will serve as preparation for the AP Computer A Exam and provide a strong foundation in computer programming concepts that can be applied to aid in learning other programming languages for use in careers in app and game development.

GAME DESIGN 2.5 Credits

Welcome to the world of creativity and innovation in our high school Game Design course! This dynamic program invites students to explore the multifaceted realm of game development, from conceptualization to implementation. Participants will gain a solid foundation in design principles, storytelling, and programming languages relevant to game creation. Through hands-on projects, students will develop their own interactive experiences, honing skills in graphics, sound, and user interface design. The course fosters a collaborative environment, encouraging students to work in teams to bring their gaming visions to life. By the end of the semester, students will not only have a comprehensive understanding of game design but also a portfolio showcasing their unique contributions to the ever-evolving world of interactive entertainment. Get ready to level up your skills and embark on an exciting journey in game design.

COMPUTERS 104 2.5 Credits

Prerequisite: Successful completion of computers 103

Welcome to our senior-level Computers course, a cutting-edge program designed to propel students into the dynamic field of computer science! In this course, seniors will leverage FreeCodeCamp, an industry-leading platform, to earn programming certifications and build a robust skill set in languages such as JavaScript, Python, and more. Beyond the virtual classroom, students will have the opportunity to apply their knowledge through internships, gaining real-world experience in the tech industry. Additionally, through a dual enrollment partnership with Berkshire Community College, participants can earn college credits, providing a seamless transition into higher education. This comprehensive course not

only equips students with valuable programming expertise but also offers a tangible pathway to career readiness and continued academic success in the ever-evolving world of technology. Get ready to code your future!

DIGITAL MEDIA ARTS 2.5 Credits

Unlock the limitless potential of creativity in the Digital Media Arts course, where students embark on a dynamic journey through the realms of graphic design, photography, video production, marketing, 3d modeling, and other digital arts. This immersive inquiry-based course is designed to provide students with hands-on introductory experience in various digital media disciplines while fostering a collaborative and project-based learning environment that culminates in an end-of semester exposition.

INTRODUCTION TO ART 2.5 Credits

The course introduces students to the Elements of Art while developing drawing skills and painting techniques. During the semester, students will observe, analyze, interpret, and evaluate a variety of artists and their work. Students will take inspiration from these artists to create their own original art pieces. Studio experiences in the classroom will give students opportunities to experience a variety of media (pencil, pen, ink, charcoal, pastel, watercolor, and acrylic paint) while developing the student's individual style and creative problem solving skills. Students will demonstrate their ability to respond, analyze and interpret their own artwork and the work of others through discussions, critiques, and writings.

INTRODUCTION TO BUSINESS 2.5 Credits

In this introductory course, students learn the principles of business—learning what it takes to plan and launch a product in today's fast paced business environment. This course covers introduction to economics, costs and profit, and different business types. Students are introduced to techniques for managing money, personally and as a business, and taxes and credit; the basics of financing a business; how a business relates to society both locally and globally; how to identify a business opportunity; and techniques for planning, executing, and marketing a business to respond to that opportunity.

PAINTING I 2.5 Credits

Introduction to multiple mediums of painting including acrylic, water color, and ink. Students will create work ranging from classic realism, to impressionism, to modernism.

TIMBER FRAMING 2.5 Credits

An elective in which students will learn about the centuries old art of timber frame construction. Students will be introduced to the math, science, and history behind the craft through classroom activities and lectures. They will then spend time in the shop designing and building a small timber frame shed using hand tools. The building will be erected on the campus of HVHS and sold locally.

ZERO PERIOD JAZZ ENSEMBLE 2.5 Credits

Jazz Ensemble is open to all students with director approval. The class meets on a daily basis during Zero Period from 7:00-7:40 A.M. Music played in Jazz Ensemble will represent a wide variety of styles ranging from the earliest big band styles up to the most current jazz trends, including rock, Latin and Fusion styles. Preparation for public performance is a regular part of class work. Students will also be required to do assignments pertaining to Jazz theory such as sight-reading and improvisation. This class may be repeated for credit.

COURSE DESCRIPTIONS: HEALTH AND WELLNESS

HEALTH AND WELLNESS 2.5 Credits

The health and wellness classes are intended to encourage and strengthen the physical, social, and mental development of students. Students are challenged through a variety of physical education classes that they attend every day for a ½ year. Students in grades 9, 10, 11, and 12 are required to take one semester of health and wellness each year (a second semester may be selected as an elective as enrollments allow).

The goal is to facilitate the development of a physically educated person who:

- Has learned skills necessary to perform a variety of sports activities
- Is physically fit
- Participates regularly in physical activity
- Knows the implications of and the benefits from involvement in physical activities
- Values physical activity and its contributions to a healthy lifestyle

COURSE DESCRIPTIONS: WORK STUDY AND INTERNSHIPS

WORK-STUDY AND INTERNSHIPS 2.5 Credits

The Work Study Program is a cooperative effort between the high school and employers in the community under which students combine schoolwork with part-time employment, or internships. With parent/guardian approval, a student may apply for Work Study, taking a minimum of five classes per year and then spending the remainder of the school day as an employee in business or industry. Students participating in work-study or internship will receive 2.5 academic credits per semester for satisfactorily completing their internship. In order to be eligible for work study or an internship, students must complete a contract with the College and Career Readiness Coordinator prior to enrolling.