

# WARE HIGH SCHOOL



## COURSE SELECTION GUIDE 2022 - 2023

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# PARENTS AND STUDENTS RIGHT TO INFORMATION

RE: January '93 603 CMR: Department of Education

## STUDENT REGISTRATION AND RECORD REVIEW

Legal custodial parents, guardians or any pupil will be allowed complete access to inspect all academic, scholastic or any other records concerning said pupil. Only legal custodians and residents of Ware may register students to Ware High School

## DESTRUCTION OF TEMPORARY FILES

All academic records excluding the permanent record will be destroyed four years from the date of withdrawal. Notification of the destruction of these records will be announced in the Ware River News, students may claim their records prior to this date.

## FAMILY EDUCATION AND PRIVACY ACT

No third party shall have access to a student record to information in or from a student record without a specific written, informed consent of the student or custodial parent. When granting consent the student or parent has the right to designate which parts of the student record shall be released to the third party. A copy of the consent form will be retained in the student temporary file.

## CONFIDENTIALITY OF RECORDS

With a few exceptions, no individuals or organizations but the legal custodial parent, student, and school personnel working directly with the student are allowed to have access to information in the student record without the specific, informed, written consent of the parent or the student.

## RELEASE FOR PUBLICATION

Any student who does not wish to have any information re: honor roll, awards or recognized activities released for publication must submit on an annual basis a written declaration of this intent to the guidance department.

## COUNSELING SERVICES

Counseling services are available to all Ware High School students for academic, career and personal/social concerns.

## NON-DISCRIMINATION

The Ware Public Schools provide equal educational opportunities without regard to ethnicity, race, sex, religion, national origin, sexual orientation, or disability.

## REPEATED COURSES

Students who repeat courses – both course grades will be used to calculate the student's GPA and will appear on the transcript. If a student chooses to repeat a non-failed course, **no credit** can be given for the repeated course.

### **\*\*\*Course Changes\*\*\***

***Students will have five days at the beginning of the semester to change classes. Requests after the designated five day add/drop period, for purposes of academic advancement, must be evaluated and approved by the Administration.***

## WARE JR. SR. HIGH SCHOOL GRADUATION REQUIREMENTS

Content Areas Courses	Grade-Level Placements	Required Graduation Credits in each Content Area
<p><b><u>English:</u></b>                      English 9 or Honors English 9                      Writing Skills Workshop (.5 credit)                      English 10 or Honors English 10                      English 11 or Honors English 11                      English 12 or Honors English 12</p> <p><i>English 11 or 12 may be substituted with AP English or Dual Enrollment English</i></p>	9  10 11 12	<p><b>4 credits</b></p>
<p><b><u>Mathematics:</u></b>                      2 semesters                      2 semesters                      Math</p>	9 10 11,12	<p><b>4 credits</b></p>
<p><b><u>Physical Education/Health:</u></b>                      Health/PE (.5 credit)                      PE (Required)</p>	9 10, 11, 12	<p><b>2 credits</b></p>
<p><b><u>Science:</u></b>                      Environmental Science                      Biology                      Science electives</p>	9 10 10,11,12	<p><b>3 credits (1 credit must be Biology)</b></p>
<p><b><u>Social Studies:</u></b>                      U.S. History 1                      U.S. History 2                       Social Studies electives</p>	9 10  11, 12	<p><b>2 credits</b>                      U.S. History 1                      U.S. History 2</p>
<p><b><u>Fine Arts:</u></b>                      Film                      Performing Arts (Instrumental or Vocal)                      Music                      Visual Arts</p>	9,10,11,12	<p><b>1 credit</b></p>
<p><b><u>Technology/Computers:</u></b>                      Sci. Tech.                      Yearbook                      Computer Info Systems                      Exploring Computer Science                      V.H.S.—online learning</p>	9,10,11,12	<p><b>1 credit</b></p>
<p><b><u>Additional Credits:</u></b>                      Consideration will be given to a student's particular interests or goals.</p>	9,10,11,12	<p><b>11 credits</b></p>
<p><b><u>MCAS</u></b></p>		Competency determination; ELA, math, science

**TOTAL CREDITS REQUIRED FOR GRADUATION: 28**

**GUIDELINES FOR SUMMER SCHOOL PARTICIPATION**

1. A student with a numerical grade average of 54 or less will not be able to makeup that class in a summer school program.
2. Before a student enrolls in a summer school, the school/program must be approved by administration.
3. Required courses (see following-English 9-12, Biology and U.S. History) cannot be made up at summer school; they must be retaken at Ware High School. (Exception: seniors, with administrative approval, may make up a required course at summer school.)
4. If a student passes a class at Ware High School they may not retake that class at summer school for an improved grade or credit without the consent of guidance/administration.
5. Both the summer school grade and the original grade will be listed on the student's transcript and will be calculated in the GPA, effectively averaging the two.

**COURSE WEIGHTING**

Please note that all honors and advanced placement courses are weighted for class rank & GPA by a factor of 1.1 and 1.25 respectively. College courses (Dual Enrollment) are weighted with a 1.25 factor.

Minimum Credits Required to attain the following Grade Standing. This is adjusted only at the beginning of each school year.

Senior	20 credits
Junior	13 credits
Sophomore	6 credits

# SCHEDULING INFORMATION

## **Students will be required to carry eight courses, including PE each year**

For scheduling purposes and allowing for scheduling conflicts, students must sign-up for eight courses **plus four** alternatives. Every effort will be made to meet the students' course requests. However, it is possible that some courses listed in this booklet may not run in the coming year due to insufficient enrollment or funding. Also note that requested elective courses may not be available to particular students based on conflicts with other courses. The administration reserves the right to schedule students with available and appropriate courses.

## **THEIR COURSES**

Minimum Admissions Standards for Freshmen Applicants to Massachusetts  
State Colleges and Universities  
(i.e. Westfield State, UMass / Amherst etc.)

Academic Unit Requirements: 16 units of college preparatory coursework

English:	4 units
Mathematics:	4 units (Algebra I & II, Geometry/Trig or comparable coursework, and a math class during senior year is required)
Sciences:	3 units (3 units <u>with lab</u> , e.g. Biology, Anatomy, Chemistry, and Physics)
Social Studies:	2 units (to include 1 year U.S. History)
Foreign Language:	2 units (3-4 of a single language are recommended)
Electives:	2 units (choose from subjects listed above, or in Arts & Humanities, or Computer Science)

**MINIMUM RECOMMENDED GRADE POINT AVERAGE in college prep coursework by the 7th semester for State colleges and UMass is a GPA of 3.0 or more**

Students whose GPA falls below this requirement may access a provisional sliding scale utilizing SAT scoring. See your guidance counselor for assistance regarding requirements for specific programs.

FOUR YEAR COLLEGE REQUIREMENTS  
EXCLUDING MASSACHUSETTS STATE SYSTEM

1. Minimum entry requirements for most four-year state universities and colleges

ENGLISH	4	Credits
MATH	3	Credits....Algebra 1 & 2, Geometry
LAB SCIENCE	3	Credits... e.g. Biology, Physics, Chemistry
SOC STUDIES	2	Credits....to include U.S. History
FOREIGN LANG.	2	Credits....three to four years recommended
ELECTIVES	3	Credits

2. Private colleges or specific programs may differ in their requirements. Check with your counselor

**TWO YEAR COLLEGES to include Massachusetts**

Most two year colleges, such as community colleges, have an open door policy to meet the needs of a diverse population. However some programs are more competitive and will require specific courses as well as SAT scores and/or GPA requirements. The health field and engineering technology majors are examples of programs that may require a minimum of three years of college math, two years of a lab science, and SAT scores.

Keeping Ware High School's Mission Statement in mind, all students are encouraged to work to meet the high standards set for them in their courses. Please refer to the NEASC Academic Expectations listed below for each content area when reviewing the courses in this Course Selection Guide.

**WARE HIGH SCHOOL Academic Expectations:**

*Students will:*

- *Read, write, and compute effectively*
- *Listen and speak effectively*
- *Demonstrate problem-solving skills*
- *Use appropriate technological tools and skills*
- *Express ideas through the arts and humanities*

# COURSE OFFERINGS

## ENGLISH DEPARTMENT

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### **111 ENGLISH 9**

Grade 9

The English 9 curriculum is organized around the four basic components of English Language Arts: reading, writing, speaking and listening. Students will be introduced to a study of the English language and the major literary genres. They will develop their library research and critical skills as they work on a variety of group and individual projects.

### **112 HONORS ENGLISH 9**

Grade 9

Grade 9 Honors English is a course for ninth graders who want to read more challenging material than they would find in regular ninth grade English. Students who choose Honors English in grade 9 should expect to continue with Honors English in grade 10. The same four components of any English program—reading, writing, speaking, and listening—make up Honors English, but the material for each will require students to take initiative and challenges themselves to do college preparatory work.

### **115 WRITING SKILLS WORKSHOP I**

Grade 9

*(Mandatory for all 9<sup>th</sup> grade students--.5 credit—linked with Physical Education 9)*

Writing Skills Workshop is a course where the emphasis is placed on writing expository and persuasive essays. Grammar, sentence structure, and vocabulary development will also be major elements of this course, geared to prepare all students for future English classes.

### **122 ENGLISH 10**

Grade 10

Tenth grade is a transition year as students begin to look outward, to begin to plan their academic future and career, and inward, to their resources for achieving their goals. Activities and exercises in literature, composition, speaking, listening, and research help students to interpret and evaluate their ideas and to explore their own attitudes and beliefs. Practice in higher level thinking and writing skills will help to prepare students for the MCAS exam and begin the preparation for the expectations of colleges and employers. Students will be assessed using tests, essays, projects, and multimedia presentations.

### **125 HONORS ENGLISH 10**

Grade 10

*(Strongly recommended: B+ or better in grade 9 English)*

This class is a pre-AP English class. That means that writing, reading, researching, and speaking learned in this course are an excellent foundation for the advanced placement courses that are available your Junior and Senior years. The activities in this course are also advanced preparation for the MCAS exam, which every sophomore must take and pass in order to graduate from high school. Students will be assessed using tests, essays, projects, and multimedia presentations.

### **132 ENGLISH 11**

Grade 11

What is it about us that make us American? Discover the answer to this question in English 11 as American literature is explored. Travel through time from exploration up through Modern American literature to discover what truly makes us Americans. Emphasis this year will be placed on vocabulary development, writing, and reasoning skills, in preparation for the SATs. Students will also refine their research skills and write a formal research paper. Students will be assessed using tests, essays, projects, and multimedia presentations.



## Honors English 11

Grade 11

*(Grade of B+ or higher from Honors English 10 is strongly recommended.)*

Honors English 11 is a college prep course. This course is devoted to a study of American literature from the colonial period to the late twentieth century. Early literature is largely non-fiction and offers the opportunity to analyze historical and informational texts. American romanticism and pre-Civil War era writing are reflections a growing, young nation. Later writings from the early twentieth-century include works from the Harlem Renaissance up to contemporary authors of today. Essays vary from analytical to creative: students may write a narrative in the style of Thoreau's *Walden* or compare the treatment of a given theme in works from different genres. Students build on their writing skills from previous years, integrating multiple sources and perspectives into their work, reading literacy criticism, and writing longer and more complex essays. By the end of the year students have a foundation in American Literature and are ready to branch out into European literature, which they study in twelfth grade.

## 142 ENGLISH 12

Grade 12

British literature will be the focus of this English class. Explore the development of the English language through Old English literature to Modern English literature. World literature will also be explored giving students a chance to experience different cultures before heading off into the world. Emphasis will be on research and writing skills, as well as critical thinking. Students will be assessed using tests, essays, a research project, and multimedia presentations.

## HONORS ENGLISH 12

Grade 12

*(Grade of B+ or higher from Honors English 11 is strongly recommended.)*

Honors English 12 is a comprehensive review from Anglo Saxon to Twentieth century British Literature. In this course a number of literary genres will be reviewed; – the short story, the novel, the essay, poetry, and drama – and all pieces of writing will be by British writers who reflect British culture and history within their writing. The course will begin with an introduction to British history, examining the lives of the Anglo-Saxons and will continue by studying Old English and medieval texts. In addition, the focus will be on the progression of British history, through literature, through the 17th and 18th centuries, into the Romantic period, and will end in the Victorian period. This literature/ writing-based course will focus on the four basic parts of any English program: reading, writing, speaking and listening. Writing will be required every day with the goal of improved syntax, control of language and word choices. Through group work, projects, presentations and discussions, we will be able to develop and improve verbal communication skills, a task supported by our thorough inclusion of vocabulary and grammar into our daily lessons. We will also be looking into art and music of these times as well, in order to give a full understanding of the people and schools of thought throughout Britain's rich literary history.

## 144 AP ENGLISH LANGUAGE AND COMPOSITION

Grades 11 – 12

\*\*\* (This course is offered every other year)

Students in this introductory, college-level course read and carefully analyze a broad and challenging range of nonfiction prose selections, deepening their awareness of rhetoric and how language works. Through close reading and frequent writing, students develop their ability to work with language and text with a greater awareness of purpose and strategy, while strengthening their own composing abilities. Course readings feature expository, analytical, personal, and argumentative texts from a variety of authors and historical contexts. Students examine and work with essays, letters, speeches, images, media, and imaginative literature. Features authors include Annie Dillard, Jill Ker Conway, E.B.White, Augusten Burroughs, Donald Murray, Virginia Wolff, Dave Barry, Truman Capote, Mark Twain, Joan Didion, Susan Sontag, and William Shakespeare. Students frequently confer about their writing in and out of class. **Summer reading and writing is required.** Students prepare for the AP Exam in English Language and Composition and may be granted advanced placement, college credit or both as a result of satisfactory performance. **Students are required to take the AP Exam when offered.**

**145 AP ENGLISH LITERATURE AND COMPOSITION**  
**\*\*\*(This course is offered every other year)**

Grades 11 – 12

This course is organized according to the requirements and guidelines of the current AP Course Description published by the College Board. This includes —engaging students in the careful reading and critical analysis of imaginative literature as well as —close reading of selected texts (through which) students can deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. The intent of this course is to provide high school juniors and seniors with college-level instruction in literature, and also to challenge them to become better readers and writers. Although we will work according to the AP Syllabus and guidelines, the instructor will also add his own perspective and the perspective of his students in an ongoing dialogue, for the purpose of adding and creating further directions for the class to explore. **Summer reading and writing is required. Students are required to take the AP Exam when offered.**

**155 PERFORMING ARTS (Closed during 2022-2023 school year)**

Grades 10 - 12

This class will focus on drama in many ways. Emphasis will be on performance. Students will learn the basics of acting, including improvisation, mime, and scene acting. Students will have the opportunity to try their hand at some basic directing. Students will also have the opportunity to write original scripts on a variety of subjects, such as current events, relationships, social and pop culture. Students will learn the basic techniques of casting, character analysis, story lines, and plot development. Students will have the opportunity to perform their original scripts for an audience.

**185 FILM (Satisfies Fine Arts Requirement)**

Grades 10 - 12

In this class, students will be taught to view film as an art form, and not just as entertainment. We will view films from the 1940s to the modern day. Serious films as well as comedies will be studied. Film elements including music, lighting, sound, direction, and acting will be examined. There will be a heavy emphasis on writing about film. Students will be encouraged to move from summary to analysis, identifying symbolism and deeper meaning in films, as they would a work of literature.

## HISTORY DEPARTMENT

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### **211 GOVERNMENT & CIVICS**

Grade 11 – 12

This course is designed to prepare students for life as an active citizen. The main thrust of the course deals with the national government, including a thorough examination of the legislative, judicial, and executive branches. Public opinion, interest groups, the media, political parties, elections, and the Constitution are other areas of emphasized study. Particularly attention will also be paid to the workings of the government of the Commonwealth. It should be noted that this course is both reading and writing intensive. Students are also required to participate in course discussions, as they arise.

### **213 WORLD HISTORY II**

Grade 9 -- 12

(History of the French Revolution to the Present)

Students study the rise of the nation state in Europe, the French Revolution, and the economic and political roots of the modern world. They study the origins and consequences of the Industrial Revolution, 19th century political reform in Western Europe, and imperialism in Africa, Asia, and South America. They will explain the causes and consequences of the great military and economic events of the past century, including World War I, the Great Depression, World War II, the Cold War, and the Russian and Chinese revolutions. Finally, students will study the rise of nationalism and the continuing persistence of political, ethnic, and religious conflict in many parts of the world.

### **231 UNITED STATES HISTORY I**

Grade 9 Requirement

The content of this course encourages a deeper understanding of the major historical events in American History from the French and Indian War to World War I. The central themes of the class include the role and responsibility of local and national government, the essence and evolution of the American Dream and American identity, and America's place in world affairs. Units of study include the American Revolution, the New Nation, Nationalism and Sectionalism, The Civil War and Reconstruction, the American West, Progressivism, and World War I. Teachers will emphasize the roles of art/music, literature, economic and social trends, and politics in the development of American culture. This program of study will require students to read a prescribed text with an abundance of ancillary materials. Student assessment will respond to a variety of learning styles and specific social studies skills and content areas with emphasis on writing and research skills. Students will write a research paper to continue to develop their researching skills and methods for historical writing.

### **233 UNITED STATES HISTORY II**

Grade 10 Requirement

The content of this course encourages a deeper understanding of the major historical events in American History from post-World War I to the present. The central themes of the class include the role and responsibility of local and national government, the essence and evolution of the American Dream and American identity, and America's place in world affairs. Units of study include the World Wars, cultural changes of the late 20<sup>th</sup> century, the Cold War and the Vietnam War and the shift to Modern America. Teachers will emphasize the roles of art/music, literature, economic and social trends, and politics in the development of American culture. This program of study will require students to read a prescribed text with an abundance of ancillary materials. Student assessment will respond to a variety of learning styles and specific social studies skills and content areas with an emphasis on writing and research skills. Students will write a research paper to continue to develop their researching skills and methods for historical writing.

**245 SOCIOLOGY**

Grades 11 - 12

Sociology is a course that studies human society and social behavior. Positive human relationships are an essential part of a civilized society and how we interact with each other is important so that we can find answers to questions and solve problems in our world. The values, beliefs, lifestyles of those around us, as well as historic events help to mold us into unique individuals who have varied outlooks on social reality. The key component of this course is to study ourselves and the society that influences our behavior. Major topics studied will include the history of sociology as a discipline of study, the role of the military in society, the role of corrections/courts/police in society, the role of families in society, the role of deviance and its effect on society, the role of political systems and beliefs in our society, the role of the collective group in society, the role of religion in society, and the role of sport in society.

**255 INTRODUCTION TO PSYCHOLOGY**

Grades 11 - 12

Psychology is the study of the mind and of behavior. In this introductory course, we will explore a variety of topics relating to psychology such as the brain, personality theory, Freud, psychological disturbances, human development, learning and thinking, and behavior and society. This course will give students background that will aid them in becoming successful in a college level Introduction to Psychology course and give them exposure to various areas of psychology that can be explored in depth in college level courses, as well as provide students with knowledge to help them improve their own personal relationships with others. Students will be expected to complete many reading assignments and participate in many individual and group activities in class.

## MATHEMATICS DEPARTMENT

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### **300 & 301 ALGEBRA I (Semester 1 & 2)**

Grades 9 - 12

*(Strongly recommended: C+ or better in 8th grade Math)*

This course is designed to introduce students to the basic structure of the real number system and to the techniques of algebra. The National Council of Teachers of Mathematics (NCTM) standards and the new Massachusetts Curriculum Frameworks serve as the foundation. Emphasis is placed on: problem solving as a continuous process, connections to other math subjects and other curriculum areas, technology is used to investigate and verify findings, and communication reinforces each other's understanding. In addition to paper and pencil tests, students will participate in math labs, engage in group projects, learn to apply the algebra to real life situations and answer open response questions which are emphasized on the MCAS exams.

### **390 ALGEBRA 1A & 391 ALGEBRA 1B**

Grades 9 - 12

These courses are designed to ease the students into the basic structure of the real number system and the techniques of algebra. Emphasis will be placed on problem solving, making connections to other math courses, and strengthening students' previously learned math skills. These courses will lay the groundwork for success on the MCAS exam.

### **392 ALGEBRA 1C**

Grades 10 - 12

*(Strongly recommended: Algebra 1A and Algebra 1B or Algebra 1—Semester 1)*

This course is the sequel to Algebra 1A & 1B. It is intended to finish the study of the mathematics necessary to meet the standards set in the MA curriculum frameworks. The topics include basic concepts common to regular algebra and geometry courses. This course is not designed to prepare students for admission into a four-year college.

### **310 ALGEBRA II**

Grades 10 - 12

*(Strongly recommended: "C" or better average in Algebra I)*

Algebra II continues and reinforces the skills introduced in Algebra I. The focus is on various methods for graphing functions, solving linear equations and inequalities in one and two variables; absolute value, piecewise functions, systems and quadratic and cubic equations and functions. Groundwork for these techniques includes the study of operations on polynomials, simplifying radicals, complex numbers, logarithms, arithmetic and geometric sequences and series, and techniques for using the TI-82 graphics calculator to aid us in our study. These techniques will be applied to the solution of problems throughout the course. Students will be expected to read mathematics, take notes, and synthesize ideas into recognizable techniques. They will also be expected to be proficient in the pre-requisite mathematics learned in previous courses. Student achievement will be assessed through exams, oral presentations, and written assignments. Both the use of technology and traditional techniques will be required.

### **393 ESSENTIALS OF ALGEBRA II**

Grades 10 - 12

*(Strongly recommended: Passing grade in Algebra 1C)*

Essentials of Algebra II reinforce the skills introduced in previous algebra courses. The focus is on various methods for graphing functions, solving linear systems of equations and inequalities in one and two variables, and solving and graphing quadratic and cubic functions. Groundwork for these techniques includes the study of operations on polynomials, simplifying radicals, complex numbers, and arithmetic and geometric sequences and series. Students will be expected to read mathematics, take notes, and synthesize ideas into recognizable techniques. They will also be expected to be proficient in the pre-requisite mathematics learned in previous courses. Student achievement will be assessed through exams, oral presentations, and written assignments. Both the use of technology and traditional techniques will be required.

**312 GEOMETRY** (Semester 1)  
*(Strongly recommended: passing grade in Algebra I)*

Grades 9 - 12

Geometry offers students many opportunities to explore geometric situations, develop conjectures and prove their conjectures using a variety of methods. The NCTM standards and new Common Core Curriculum Standards serve as the foundation. Students are introduced to definitions, postulates, axioms, and theorems and are encouraged to use them in making logical arguments in paragraph, flow proof, coordinate proof, and two column proof formats, in addition to paper and pencil tests, students will participate in math labs, engage in group projects, learn to apply the algebra to real life situations and answer open response questions which are emphasized on the MCAS exams.

**313 ESSENTIALS OF GEOMETRY**  
*(Strongly recommended: passing grade in Algebra 1A, 1B & 1C)*

Grades 10 - 12

This course is designed to help the student learn the geometry that is needed to pass the MCAS test. The NCTM standards and MA Curricular Frameworks serve as the foundation. Geometry offers students many opportunities to explore geometric situations, develop conjectures and prove their conjectures using a variety of methods. Students are introduced to definitions, postulates, axioms and theorems and are encouraged to use them in making logical arguments in paragraph, flow proof, coordinate and two column formats. In addition to paper and pencil tests, students will participate in math labs, engage in group projects learn to apply the algebra to real life situations and answer open response questions which are emphasized on the MCAS exams.

**314 ADVANCED TOPICS IN GEOMETRY** (Semester 2)  
*(Strongly recommended: passing grade in Geometry)*

Grades 10 - 12

This course is intended to have the students apply topics learned in Geometry. New units include Right Triangles and Trigonometry, Circles, Area of Polygons and Circles as well as Surface Area and Volume. This course was created to incorporate the new Common Core State Standards for Mathematics. In addition to paper and pencil tests, students will participate in math labs, engage in group projects, learn to apply the algebra and geometry to real life situations and answer open response questions which are emphasized on the MCAS exams.

**316 MATH FOR SENIORS**

Grade 12

*(Strongly recommended: passing grade in Algebra 1C and Basic Geometry. Students who have passed Algebra I and/or Geometry are not recommended candidates for this course.)*

Senior Math provides students an excellent opportunity to review and enhance topics learned in previous courses. Emphasis on basic skills will quickly shift to topics in Algebra and Geometry. Students will practice and refine the skills necessary to do well on college placement exams.

**320 ALGEBRA / TRIGONOMETRY**

Grades 11 - 12

This course is for students who have passed Geometry and Algebra II but are not taking any other upper-level math courses. Algebraic and geometric topics will be covered, including trigonometric functions and right triangles, solving polynomial, exponential, rational, and radical equations with associated problem solving. This course is strongly recommended for any college bound senior to help prepare them for placement testing and success in college math.

**333 PRE-CALCULUS**  
*(Strongly recommended: C+ or better in Algebra II)*

Grades 11 - 12

Pre-Calculus is designed to strengthen each student's facility with more difficult mathematical concepts in an effort to prepare them for Calculus. Topics covered include: Coordinate Geometry of Points, Lines, and Conic Sections, Inequalities, Functions, Circular and Triangular Trigonometry, and Exponential and Logarithmic Functions. In addition to daily homework assignments, students will be assessed through tests, quizzes, and their ability to demonstrate critical thinking and problem-solving skills.

### 334 HONORS CALCULUS

Grade 12

Honors Calculus is primarily concerned with developing the students' understanding of the concepts of calculus and providing experiences with its methods and applications. The course emphasizes a multi presentational approach to calculus with concepts, results, and problems being expressed graphically, numerically, analytically and verbally. Topics include functions, graphs and limits, derivatives and integrals. This course should be taken by students who plan to continue their studies at a higher level. It is designed as an introduction to higher level calculus.

### 337 AP STATISTICS

Grades 10 - 12

The purpose of this course is to introduce students to the major concepts and tools for collecting data, analyzing data, and drawing conclusions from data, and drawing conclusions from data. The curriculum follows the topical outline for an Advanced Statistics Course. The major topics studied are: observing patterns and departures from patterns in data sets; planning and conducting a study, including how to make decisions about what to measure; anticipating patterns and producing models using probability theory and simulation; estimating population parameters and testing hypotheses using statistical inference; confirming models. **Summer work is required for this course.**

## SCIENCE DEPARTMENT

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### **400 BIOLOGY w/LAB**

Grade 10

*(Strongly recommended: Passing grade in Environmental Science)*

Biology is taken sophomore year and is a requirement for graduation. This course follows the state frameworks for MCAS testing: the chemistry of life, structure and function of cells, genetics, human anatomy and physiology, evolution and biodiversity, and ecology. In addition to tests and quizzes, students learn by doing laboratory work, applying the scientific method and researching individual projects. The field of biotechnology is incorporated as a component to the genetics instructions.

### **455 ENVIRONMENTAL SCIENCE**

Grade 9

All grade 9 students are required to take this survey course which introduces them to the basics of science and develops an awareness of the student's place in our world relative to all other organisms and the predictability and/or results of their actions. By carrying out labs and assignments cooperatively in areas such as ecology, water, climate, evolution, biodiversity, populations, mechanics and weather, students will develop written and oral presentation skills and learn to work and depend upon each other for success. In addition to standard assessments, students are required to write term papers and do group projects.

### **405 HONORS BIOLOGY w/LAB**

Grade 10

*(Strongly recommended: B or better in Environmental Science)*

This is a comprehensive biology course for the serious student with good academic ability and strong verbal skills. The goal of the student is to gain an understanding and appreciation of the diversity of living things, their special adaptations to the environment and their evolutionary and ecological relationships. Selected topics will include biochemistry, biotechnology, microbiology and disease, protein synthesis, photosynthesis, genetics, reproduction, embryology and other areas as time permits. Honors biology is a *rigorous fast-paced program* involving numerous laboratory investigations.

### **407/407B AP BIOLOGY (You must sign up for both sections— 1 credit each)**

Grades 11- 12

*(Strongly recommended: B or better in Honors Biology or A in Biology)*

AP Biology is designed to emulate a two-semester sequence in introductory college-level Biology. This being said, AP Biology is for the serious biology student who is self-motivated and who has excelled in Biology. This course will contain the 12 required AP Biology labs with additional supplemental laboratory activities taken from a variety of other sources such as lab bench. As well as laboratory activities, students will be assigned a variety of research projects, independent readings of current biotechnology and scientific discoveries as well as a variety of weekly discussion topics. The course is divided into 8 units that span all levels of biological organization, from atoms and molecules, through cells and organs and into interactions among and between organisms. **Summer work is required for this course.**

### **409 INTRODUCTION TO HUMAN ANATOMY w/LAB**

Grades 11 - 12

This course is a laboratory class which will cover the basics of the human body. Within the time constraints of the course, coverage will include the following-scientific method, cells, tissues, chemical reactions (metabolism), organs, and body systems. Students will gain a comprehensive knowledge on human body parts and their respective functions.



**410 HONORS ANATOMY & PHYSIOLOGY w/LAB (HONORS LEVEL)**  
(Strongly recommended: A- or better in Biology or B+ or better in Honors Biology)

Grades 11 - 12

Anatomy and physiology is designed to familiarize students with the major organ systems and functions of the human body. Upon completion of this course, a student should be better prepared for further specialized study in the medical and health-related fields such as: public health, nursing, medical school, laboratory technology, veterinary school, physical education, and others. Anatomy and physiology is a science elective for both students interested in how their bodies work and those interested in pursuing science courses in college. Laboratory work is an essential part of this course, which includes dissections.

**425 BIOTECHNOLOGY w/LAB**  
(Strongly recommended: B- or better in biology)

Grades 10 - 12

Biotechnology can be described as the application of biological systems to solve technical and industrial problems. This course describes the basic principles and underlying strategies involved in the use of biological systems for new technology. There is an emphasis on the application of molecular and microbial biotechnology. Recent developments in selected areas of biotechnology will be discussed, as well as tissue culture, gene transformations, chromatography, ELISA essays, electrophoresis and DNA extractions. This is an upper-level science course with emphasis on good lab techniques, as well as a strong background in biology and chemistry.

**429 HONORS CHEMISTRY w/LAB**  
(Strongly recommended: Pass Algebra I with B or better and A- or better in Biology or B+ or better in Honors Biology)  
**\*\*25 students MAXIMUM for safety\*\***

Grades 11 - 12

This chemistry course, which is recommended for students planning to go on to college and pursue a career in the sciences, offers the opportunity for students to develop a number of skills required for a successful college experience. In addition to learning how to improve methods of study in a complex content area, students will conduct and compose in depth reports on a variety of lab experiments where analysis and conclusions are essential. By working in a partnership environment in their labs and project work, students will gain interpersonal and cooperative working skills that will be required in their future fields of endeavor. In addition to standard assessments, students are required to write papers each term and make presentations on their standard assignments. Strong emphasis is placed on analytical thinking and computational skills. A strong math background is recommended.

**430 CHEMISTRY w/LAB**  
(Strongly recommended: Pass Algebra I with C or better)  
**\*\*25 students MAXIMUM for safety\*\***

Grades 11 - 12

This course is recommended for those students who want an exposure to chemistry but are not considering pursuing the sciences in their future educational plans. Working with partners and report writing are essential skill builders as well as research reports and group projects. A lesser emphasis is placed on computational skills, but the basics of algebra are critical. In addition to the general inorganic content, this course also introduces the student to the basics of organic chemistry.

**440 HONORS PHYSICS w/LAB**  
(Strongly recommended: Pass Algebra II with B+ or better and B or better in Pre-Calculus or taking concurrently, B+ or better in Honors Chemistry)

Grades 11 - 12

A student planning to go to a strong academic institution should definitely sign up for this course and especially if they plan to pursue a career in either the sciences or mathematics. Kinematics is covered in depth and, time permitting; there is an introduction to wave physics and electricity. A strong knowledge of algebra and trigonometry is essential as in-depth mathematical analysis is required for the writing of reports as well as the basic understanding of content. By working in a partnership environment in their labs and project work, students will gain interpersonal and cooperative working skills that will serve them well in the future. Competitiveness in project success also builds character and develops personal pride in workmanship. In addition to standard assessments, students also write term papers and make oral presentations to improve upon their communication skills.

**471F/471S Certified Nurse Assistant**  
(Prerequisite: Passing grade in Anatomy and Physiology)

Grade 12

This advanced course for direct healthcare workers consists of academic and interactive, hands-on coursework. Foundational competency skills will be taught along with Healthcare Professionalism, Common Chronic Diseases, Patient-Caretaker Skills in a simulated home-care setting, Emergency communication procedures and two courses that lead to national certification: CPR/AED and Supportive Aide for Alzheimer's and Dementia.

**480 Introduction to Principles of Engineering**

Grades 9 - 12

This is a hands-on course where students will utilize a systems approach and the Engineering Design Process to address real-world problems in various areas including manufacturing and construction. Students will develop skills such as reading, interpreting, and creating engineering drawings along with measurement, shop safety, and the safe use of appropriate tools for specific projects. Students will also learn about different careers in the manufacturing, construction, and technology fields along with workplace readiness and various certification paths available.

**PLTW480 Introduction to Engineering Design**

Grades 9 - 12

Introduction to Engineering Design (IED) is a high school engineering course in the PLTW Engineering Program. In IED, students explore engineering tools and apply a common approach to the solution of engineering problems, the Engineering Design Process. Using the activity-project-problem-based learning, students progress from completing structured activities to solving open-ended projects and problems that require them to identify, plan, document, communicate, and develop other professional skills to design solutions to a variety of real problems. They work both individually and in collaborative teams to develop and document design solutions using engineering notebooks and 3D modeling software.

**PLTW484 Computer Integrated Manufacturing**

Grades 10 - 12

(Prerequisite: C or better in PLTW IED)

Manufacturing transforms ideas into products. This course provides an opportunity for students to develop a better understanding of this innovative and exciting industry. Students learn about manufacturing processes, product design, robotics, and automation. Students learn and develop knowledge and skills of Computer Aided Design and Manufacturing to produce products using a Computer Numerical Controlled (CNC) mill. Students apply the knowledge and skills gained in this course as they collaborate to design, build, and program factory system models. Computer Aided Manufacturing provides products we use daily. How can a student jump in and become part of it?

**PLTW482 Principles of Engineering**

Grades 10 - 12

(Prerequisite: Passing grade in PLTW Computer Integrated Manufacturing, Algebra I, and Geometry)

Principles of Engineering (POE) is a second course in the high school engineering pathway. This course exposes students to some of the major concepts that they will encounter in an engineering course of study. Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of materials and structures, automation, and kinematics. The course applies and concurrently develops secondary level knowledge and skills in Technology, mathematics, and science.

## FOREIGN LANGUAGE DEPARTMENT

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### **535 SPANISH I**

Grades 9 - 12

This is a college preparatory course in Spanish language. It is intended to provide students with basic knowledge of Spanish grammar and vocabulary as well as to develop the four skills of language: reading, writing, listening and speaking. In addition, students are exposed to authentic language use as well as the cultures of various Spanish-speaking countries through film and music.

### **540 SPANISH II**

Grades 9 - 12

*(Recommended 80% in Spanish I)*

This is a college preparatory, intermediate course in Spanish language. It is intended for those students who have successfully completed Spanish 1. In this class, students continue to enhance their knowledge of Spanish grammar and vocabulary as well as to develop the four skills of language: reading, writing, listening and speaking. Additionally, students are exposed to authentic language use as well as the cultures of various Spanish-speaking countries through film, music and art.

### **541 SPANISH II Honors**

Grades 9 - 12

*(Recommended 90% or better in Spanish 1 and teacher recommendation required)*

This is an honors level, intermediate course in Spanish language. It is intended for those students who have successfully completed Spanish 1 with a 90% or better, and have been recommended by their Spanish 1 teacher. In this class, students continue to enhance their knowledge of Spanish grammar and vocabulary as well as to develop the four skills of language: reading, writing, listening and speaking with increased breadth and depth in relation to the college preparatory level Spanish 1 course. Additionally, students are exposed to authentic language use as well as the cultures of various Spanish-speaking countries through film, music and art.

### **545 SPANISH III**

Grades 10 - 12

*(Recommended 85% in Spanish II)*

This is an upper intermediate course in Spanish language designed for students who have successfully completed Spanish I and II. It is intended to provide students with a vast knowledge of Spanish grammar and vocabulary as well as to continue to develop the four skills of language: reading, writing, listening and speaking. In addition, students are exposed to authentic language use as well as the cultures of various Spanish-speaking countries through film, art, music and literature.

### **550 SPANISH IV**

Grades 11 - 12

*(Recommended 85% in Spanish III)*

This is an advanced course in Spanish language designed for students who have successfully completed Spanish I, II and III. It is intended to provide students with exceptional knowledge of Spanish grammar and vocabulary as they continue to move toward mastery of the four skills of language: reading, writing, listening and speaking. In addition, students are exposed to authentic language use as well as the cultures of various Spanish-speaking countries through film, art, music and literature.

## BUSINESS/TECHNOLOGY DEPARTMENT

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### **175 YEARBOOK** \*Fulfills computer/tech requirement **176 YEARBOOK 2**

Grades 10 – 12

This course is for students interested in being members of the yearbook staff. It is a class for UPPERCLASSMEN. The goal and end-product of this course is to create the 2023 yearbook! All assignments in the various topic areas will be related to its creation. Topics covered will include:

Written Communication (Using MSOffice ~ Word, Publisher, Excel and Access): Writing professional correspondence, developing reports, flyers, presentations, tracking spreadsheets & databases as well as writing copy & captions and EMAIL etiquette.

Verbal Communication: Working with local customers/businesses, improving informal communications, phone etiquette and making formal presentations.

Problem Solving & Decision Making: Identifying the problem, thinking critically and solving the problem.

Professionalism: Presenting yourself professionally, developing a professional work ethic, interviewing techniques and planning & managing your time

Team Work & Team Building: Working in groups & teams, team building & development, being a team leader, creating agendas, minutes and action plans (in MS Office) & having successful meetings.

**Note: Students are required to participate in an advertising sales campaign, fundraisers and photography of events which includes tasks needed to be completed outside of the school building after the school day.**

### **640 EXPLORING COMPUTER SCIENCE**

Grades 9 - 12

This course teaches the foundations of computer science and basic programming using Python, Web Design and if time permits, Android application development. Coursework has an emphasis of helping students develop logical thinking and problem-solving skills. This course is designed for those with little to no programming experience. Students will gain experience in concepts such as Loops, Functions, Strings and Conditionals. This class is very hands-on with daily hands-on programming exercises.

### **645 Mobile Computer Science Principles**

Grades 10 - 12

*(Strongly recommended grade of B or higher in Computer Information Systems or Exploring Computer Science)*

This course provides an introduction to basic principles of computer science (CS), including programming in App Inventor, a graphical programming language for Android mobile devices. This is a project-based course. Students will learn CS principles by building socially useful mobile apps and reflecting on the impacts of their work. This course involves a strong writing component. Students will maintain a portfolio of their work, which will include several performance tasks in the areas of programming, data analysis, and the impact of computer technology.

### **336 Honors Computer Science**

Grades 10 - 12

*(Prerequisite: Exploring Computer Science or teacher recommendation)*

This course is intended for those students who have demonstrated a high degree of ability in Computer Science. This java-based course provides opportunities for students to develop skills related to computational practices including program design and algorithm development, code logic, code implementation, code testing, and documentation. This course provides students with hands-on lab experience to practice programming through designing and implementing computer-based solutions to problems. This course also includes a structured lab component composed of hands-on computer lab experiences with daily java coding.

**660 ACCOUNTING**

Grades 9 - 12

This course will introduce students to basic accounting practices used in small business operations. Students will use analytical skills to follow the accounting cycle and examine financial statements. Students will then apply this knowledge to real-world scenarios and case studies. An introduction to QuickBooks by Intuit will be included in the course.

**665 ACCOUNTING II**

Grades 10 - 12

This course is designed to provide the skills necessary for employment in accounting operations and for college-bound students who plan to take Accounting, Finance, or other Business courses in college. This course covers more advanced accounting concepts including merchandising and payroll. The course includes further work with QuickBooks by Intuit.

**667 PERSONAL FINANCE**

Grades 10 – 12

This course will introduce fundamental concepts of our economic system and monetary issues that impact our lives on a daily basis. Topics covered include setting financial goals, banking, savings and investing, taxes, credit cards and loans, retirement packages, and major life purchases. Through a series of research and projects, we will explore the financial world we live in and develop our own personal financial plans for after graduation and beyond.

**690 COMPUTER INFORMATION SYSTEMS** \*fulfills computer/tech requirement\*

Grades 9 - 12

This course begins with a review of computer basics, then advancing to the most popular software Applications ~ Microsoft Office Professional, Google Apps, and the Internet. This course gives students everything they need to be confident and competent as users of today's business technology. Students will apply problem-solving skills to real-life situations through the use of Microsoft Word, Excel, Publisher, Access and PowerPoint in addition to online editing and collaboration on projects using Google Apps. Additional units will incorporate the use of Picasso, a digital photography editing tool and Movie Maker for multi-media presentations. Through integrated software activities, students learn to use the computer efficiently and apply these skills to cross-curricular assignments. Assessments for this course will include but not be limited to: Portfolio projects, PowerPoint Presentation, Multimedia Presentation, Digital photography portfolio& editing as well as Paper and Pencil tests.

**695 Management**

Grades 9 – 12

Management is a key supportive role within any organizational structure. This course will introduce and develop skills that are necessary for effective leadership. Whether it's a large corporation, a professional sports franchise, or a small business setting, effective management is an ingredient that must be included and incorporated into the culture of any firm. Topics will include traits of strong leadership, motivational variables, coaching skills, negotiation, conflict resolution, team management, teamwork and diversity within the workplace. We will explore the different types of organizational structures and communication strategies that exist in today's Global Market Place.

**696 MARKETING**

Grades 9 - 12

This course is designed to expose students to our Free Enterprise System and to demonstrate how the Global Economy effects how our economy operates. Students will learn how economic indicators impact the laws of Supply and Demand and how marketing executives use information gathered from research to develop selling strategies of goods and services. Students will have the opportunity to use some of these strategies to develop their own advertisements based upon the functions and utilities of marketing.

## DUAL ENROLLMENT & WORK BASED LEARNING

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### **795 Work-Based Learning**

Grades 11 - 12

*(Prerequisite: Administrative Approval)*

The Work Based Learning Experience was created on the principles of the School to Career initiative. This opportunity allows juniors and seniors to enter into unpaid, educational work experience with an individual, company, or community organization. The purpose of the Work Based Learning Experience is to gain meaningful work skills and practices as related to the student's future career interests.

Students participating in the Work Based Learning Experience are required to complete regular journal entries, time sheets and other documentation/assignments as specified by the WBLE Coordinator. Students must also attend regular meetings with the WBLE Coordinator and complete the required minimum hours.

Interested students must complete an application packet which will be reviewed for approval by Guidance staff and Administration.

### **HCC000 DUAL ENROLLMENT**

Grades 11 - 12

The Dual Enrollment program allows students to earn academic credit at both the college and high school level simultaneously. Dual Enrollment students enjoy the connection to their high school as well as the challenging and independent setting of the college. Each student is required to complete the necessary paperwork to be accepted in the school's program. Students must fully apply for their intended community college course on their own and relay that information to the Guidance Department before the start of the semester. **Any course costs/tuition will be the responsibility of the student.** A significant effort on the part of the student is necessary for this to be successful. Students are only permitted to take a graduation requirement through Dual Enrollment in the fall semester.

### ELIGIBILITY

- Must be a junior or senior;
- Must have a GPA of 3.0 or higher
- Positive recommendations from a guidance counselor.
- Only seniors who have completed all Ware Public Schools Graduation requirements are eligible to take all 4 courses offsite.
- Dual Enrollment courses will be given level 3 credit (AP), so long as the course taken is not remedial as defined by the college.
- Students will be graded on the same scale that WJSHS uses (A+ to F). However, students who score 97% or higher wishing to receive an A+ must provide documentation to the Guidance Department.

**\*\*Students and parents are responsible for monitoring their grade in the course(s) they choose to take.**

# VIRTUAL HIGH SCHOOL

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**745 VIRTUAL HIGH SCHOOL** \*Fulfills computer/technology requirement\*  
(Needs administrative approval). Preference will be given to upper classmen.

Grades 10 - 12

Virtual High School offers a catalog of full semester courses in the Arts, Foreign Language, Language Arts, Life Skills, Math, Science, Social Studies, Technology and AP<sup>1</sup> Study to students in VHS member schools. The courses listed are current at the time of publication.

## **750F/750S VIRTUAL HIGH SCHOOL Advanced Placement Courses**

Grades 11 - 12

(Needs administrative approval) 2 semesters / 2 credits (Students must sign up for both 750F and 750S)

VHS offers 15 full year AP courses: Biology, Calculus, Chemistry, Computer Science, Economics, English Language & Composition, English Literature, Environmental Science, French, Government, Physics, Spanish V, Statistics and U.S. History. **\*\*Special Note: Students in these courses must take the AP exams. Students will be required to complete coursework in the summer for AP VHS classes.**

## VIRTUAL HIGH SCHOOL COURSE LISTINGS

### **AP® Courses**

AP® Art History  
AP® Biology  
AP® Calculus AB  
AP® Calculus BC  
AP® Chemistry  
AP\* Computer Science A  
AP\* European History

AP® Economics  
AP® English Language and Composition  
AP® English Literature and Composition  
AP® Environmental Science  
AP® French Language & Culture  
AP® Government & Politics: U.S.

AP\* Human Geography

AP\* Music Theory  
AP® Physics C  
AP\* Psychology  
AP® Spanish Language & Culture  
AP® Statistics

AP® U.S. History

### **Arts**

American Popular Music  
AP\* Art History  
AP\* Music Theory  
Art History  
Art History: Art of the Caribbean Islands  
Creating Art History\*  
History of Photography

### **Business**

Business and Personal Law  
Entrepreneurship  
International Business  
Investing in the Stock Market  
Marketing and the Internet  
MS Business Foundations  
Personal Finance

### **Foreign Language**

AP\* French Language & Culture  
AP\* Spanish Language  
German Language & Culture  
Italian Language & Culture  
Latin 1  
Latin 2  
Mandarin Chinese Language & Culture  
Portuguese 1  
Russian Language & Culture  
Spanish 1  
Spanish 2  
Spanish Culture & 20<sup>th</sup> Century Hispanic Literature

### **Language Arts**

101 Ways to Write a Short Story\*  
Academic Writing\*  
Advanced English Literature Honors  
AP\* English Language & Composition  
AP\* English Literature & Composition  
Around the World in 80 Days

### **Language Arts continued**

Bad Boys in Literature  
Contemporary Irish Literature  
Creative Writing  
Credit Recovery English 9  
Credit Recovery English 10  
Credit Recovery English 11  
English 9

English 10

English 11

### **English 12**

Essay Writing  
Fantasy & Science Fiction Short Stories  
Film & Literature  
Folklore & Literature of Myth, Magic & Ritual  
Ghoulies, Ghosties, and Long-Legged Beasties  
Horror Writers  
Journalism in the Digital Age  
Literacy Skills  
Literature of the World

MS Creative Writing

### **Life Skills / Health**

Career Awareness  
Employability Skills\*  
Kindergarten Apprentice Teacher  
Now What Will You Do?  
Parenting in the Twenty-First Century\*  
Perspectives in Health

### **Physical Education: Personal Fitness**

Music Listening and Critique\*  
Music Fundamentals of Composition

Blogs, Wikis, and Web Tools  
Contemporary Irish Literature\*  
Creative Writing for People Who Mean It

Preparing for College  
Who Do I Want To Be When I Grow Up?\*

### Math

Algebra 1\*  
Algebra 2

Algebra 2 Honors  
AP® Calculus AB  
AP® Calculus BC

AP Statistics  
Calculus Honors  
Algebra 1 Summer Offering  
Credit Recovery Algebra I  
Credit Recovery Geometry  
Geometry  
Math & Modern Logic

Math You Can Use in College  
Mathematics of Electricity  
MS Number Theory  
MS Pre-Algebra  
Number Theory

### Pre-Calculus

**Pre-Calculus I: Advanced**

### Trigonometry

### Pre Calculus II: Functions

Statistics Honors

### Science - Biology

Anatomy & Physiology  
Animal Behavior and Zoology

AP® Biology  
Biochemistry  
Bioethics  
Biology  
Biotechnology  
Credit Recovery Biology  
Epidemics  
Evolution & the Nature of Science  
Genes & Disease

Pre Veterinary Medicine  
The Human Body

### Science General

AP® Chemistry

AP® Environmental Science  
Astronomy Principles  
Chemistry Honors

### Science & Physics

AP\* Physics1  
AP\* Physics C

Nuclear Physics & Physics Honors

### Social Studies

AP® Economics

AP® European History  
AP® Government & Politics: U.S.  
AP® Human Geography  
AP® Psychology  
AP® US History  
AP® World History  
Constitutional Law  
Contemporary Issues in American Law & Justice  
Criminology  
Democracy in the US  
Eastern and Western Thought  
Economics Honors  
Modern Middle East

MS Civics  
MS Society & Humanity  
MS World War II Through the Eyes of Dr. Seuss  
Peacemaking  
Pearl Harbor and the Pacific Theater  
Philosophy I

Practical Law  
Psychology Honors  
Psychology I  
Psychology of Crime  
Sociology  
Sports & Society  
The Glory of Ancient Rome  
The Holocaust  
The Vietnam War

U.S. foreign Policy  
U.S. Government  
U.S. History 1754-1877

U.S. History 1877- Present  
World Conflict, a United Nations Introduction  
World History 1450-Present  
World History Pre-history-1500

### Technology / Tech Education

AP® Computer Science A  
CAD  
Computational Science & engineering  
Using Java  
Computer Animation with Scratch  
Computer Science Honors  
Creating Effective PowerPoint Presentations  
Programming in Visual Basic  
Video Gam Design Using Game Maker  
Web Design -Advanced  
Web Design -Basics

*\*Appropriate for both High School and Gifted and Talented Middle School Students*

*\*VHS is qualified through the AP Course Audit*

*to label its courses "AP"*



**Earth Science**

Engineering for Sustainable Energy  
Engineering Principles  
Environmental Science  
Environmental Science Honors  
Forensic Science  
Meteorology  
MS Engineering  
MS The Teenage Brain  
Oceanography

World Religion

## VISUAL ARTS DEPARTMENT

### 850 ART 1 FOUNDATIONS

Grades 9 – 12

Open to all WHS students, this introductory art course will expose students to basic techniques, media, and works of art in the areas of drawing, painting and two-dimensional design, printmaking, sculpture and three-dimensional design. Various artists, periods of art and art styles will be introduced such as realism, surrealism and abstraction. The curriculum allows for students to discover and begin developing their own personal styles while they learn essential skills unique to each form of art making. Students will participate in group and individual projects, class critiques, and will write self-evaluations of their work.

### 860 ART 2 FOUNDATIONS

Grades 10 – 12

*(Prerequisite: 82% or greater in Art 1 and subsequent art courses)*

This course is a continuance of Art 1 with in-depth study focused on techniques and skills in drawing, painting and two-dimensional design, printmaking, sculpture and three-dimensional design. In Art II, students will further develop their own personal styles while continuing to master essential art skills. Various artists, periods of art, and art styles will be studied such as contemporary art, realism, fantasy, and illustration. Students will participate in group and individual projects, keep a sketchbook journal, write creative responses to their artwork, and participate in oral and written class critiques. Throughout the semester, connections will be made to other forms of art-making as well as other curriculum areas.

### 880 CERAMICS 1

Grades 10 – 12

*(Prerequisite: 89% or greater in Art 1 and subsequent art courses)*

In this course, we will examine the properties of clay for creating functional and nonfunctional pottery. The ceramics curriculum covers basic and advanced methods of hand-built pottery construction such as pinch, coil, and slab, as well as advanced methods of wheel-thrown pottery construction. We will also explore various glazing and surface decorating techniques, and students will learn how to load and fire an electric kiln. Strong self-motivation and cooperation, self-motivation, and dedication are necessary attributes of the ceramics student. *Special notes: Students may need to stay after school to master techniques and work on assignments, and may be required to lead after school workshops. Although clay is an exciting and rewarding medium to work with, it is very messy!*

### 885 DRAWING

Grades 10 – 12

*(Prerequisite: 82% or greater in Art 1 and subsequent art courses)*

This course is designed for students who wish to further explore the art of drawing. Projects will include topics such as line drawing, illustration, graphic design, portrait and figural studies. A wide variety of drawing materials will be utilized including pencil, charcoal, pen and ink, pastel, and nontraditional drawing media. Students will have the opportunity to explore their own personal styles and individual areas of interest. In addition to creating drawings, students will engage in group projects, make discoveries of natural measurements found in nature, keep a sketchbook journal, write creative responses to their artwork, and participate in class critiques. Throughout the semester, connections will be made to other forms of artmaking as well as other curriculum areas. *This is a necessary course if you are considering a career or college degree in visual arts.*

### 883 HONORS Ceramics 2

Grades 11 – 12

*(Prerequisite: 92% or greater in Ceramics 1 and art teacher recommendation)*

In this advanced course, students will further their exploration of hand-built and wheel-thrown pottery construction through select functional and nonfunctional forms. Focus will be placed on individual student themes and areas of interest, culminating in the development of a cohesive body of work for exhibit. Honors Ceramics 2 students will assist Ceramics 1 students in their acquisition of clay work skills and will be responsible for organizing and leading clay demonstrations. Honors Ceramics 2 students will also share the responsibility for loading and firing the ceramics kiln. In addition to possessing considerable artistic and technical clay work abilities, the Honors Ceramics 2 students should be dependable and have excellent organizational and communication skills.

## HEALTHY LIFESTYLES/PHYSICAL EDUCATION

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(Physical Education is state mandated for all students each year)

### **805 REAL LIFE SKILLS (Closed for the 2022-2023 SY)**

Grades 9 – 12

This course involves the study of the systems approach to family management. It includes the principles of family living related to the management of human and environmental resources; home-related work, patterns of communication and decision-making; and change as it affects families. It includes the study of current family forms and challenges affecting families today. Explore the nuances of interior design, blending textures, patterns and colors, including basic sewing and mending.

### **825 FOOD & NUTRITION I (Closed for the 2022-2023 SY)**

Grades 9 – 12

Food & Nutrition: Beginner level. Experiences in the Food and Nutrition course focus on the development of skills needed to select, prepare, and serve food that meets nutritional needs of individuals and families. Emphasis in this course is given to the development of competencies related to nutrition, weight control, the food consumer, the effect of technology on food and nutrition, kitchen organization and equipment, safety and sanitation, menu planning, serving and eating food, food preparation, eating away from home, and jobs and career opportunities in the field of food and nutrition. Upon completion of this course, students should be able to apply sound nutritional practices which will have a positive effect on their health.

### **826 FOOD & NUTRITION II (Closed for the 2022-2023 SY)**

Grades 10 - 12

*(Pre-requisite: Passing grade in Food & Nutrition I)*

Designed to reinforce and further enhance skills developed in Food & Nutrition. Students will study advanced preparation techniques and culinary skills. An understanding of the chemical changes that take place during food preparation will be enhanced through classroom demonstrations and lab experiences. This course will also provide students with the opportunity to understand and utilize, through companion programming, the farm to table cycle. Serve Safe Certification ready.\*

### **829 BAKING (Closed for the 2022-2023 SY)**

Grades 10 - 12

*(Pre-requisite: Passing grade in Food & Nutrition I)*

Science of baking. Progression of beginner to advanced recipes. Explore healthy baking substitutions (i.e. gluten free, whole wheat, etc.). Explore the science behind ingredient interactions and a thorough dive into yeast and its uses.

### **909 HEALTH SEMINAR (Closed for the 2022-2023 SY)**

Grades 10 – 12

A comprehensive un-biased and open discussion study on overall wellness. Topics studied will include; values, human sexuality, relationships and emotions, communication, sexual behavior, abstinence, STIs, gender identity, pregnancy, contraception, body image, reproductive health and anatomy, drug addiction and behavior, symptoms of substance abuse, alcoholism, tobacco addiction and dangers, peer pressure, available resources and others. This class is designed to educate on topical issues and encourage overall body health, awareness and safe practices.

**905 HEALTH / PHYSICAL EDUCATION 9**

Grade 9

*(Mandatory for all 9<sup>th</sup> grade students--.5 credit—linked with Writing Skills Workshop I)*

Physical Education gives students opportunities to participate and grow in team, individual, and fitness activities. Students will learn to work together with others in team efforts, while at the same time learning respect and sportsmanship towards others. In addition to lifelong activities students will participate in fitness testing and training, keep a semester long fitness journal, and be tested on knowledge, strategy, and comprehension. Health education teaches students to use fundamental health concepts to assess risks, to consider potential consequences, and to make health-enhancing decisions. Health education also teaches skills that assist students to understand and communicate health information clearly for self-management and health promotion. It also teaches students to work in a positive manner with families, school, staff, peers and community members to enhance personal health and create a safe and supportive environment where individual similarities and differences are acknowledged.

**915 PHYSICAL EDUCATION**

Grades 10 - 12

*(Mandatory for all 10-12 grade students)\**

Physical Education gives students opportunities to participate and grow in team, individual, and fitness activities. Students will learn to work together with others in team efforts, while at the same time learning respect and sportsmanship towards others. In addition to lifelong activities students will participate in fitness testing and training, keep a semester long fitness journal, and be tested on knowledge, strategy, and comprehension.

## MUSIC DEPARTMENT

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### **949 HISTORY OF ROCK & ROLL**

Grades 9 – 12

This course is designed to introduce students to the history of rock & roll music from the early on-set of rock & roll to its current form and how it has evolved over the decades.

### **952 INSTRUMENTAL MUSIC**

Grades 9 – 12

Instrumental Music is designed for those students who wish to participate in a performance ensemble for band instrument. Prior experience with a band instrument is preferred, but not required.

Admission for students with no musical experience with a band instrument may be granted by the teacher. Use of school owned instruments are limited. Areas of traditional wind music, jazz, music history, music theory and composition, and world music will be explored.

*\*\*Special Note: Performances outside the regular school day are required.*

### **954 MUSIC APPRECIATION**

Grades 9 – 12

This course is designed to introduce students to Western Art Music from the Renaissance to the present. Different types of music, from pop to rock, will also be studied. Students will learn basic music terms, notation, rhythm and simple chord progressions. Music compositions will be written and performed in the class.

### **955 VOCAL MUSIC**

Grades 9 – 12

Vocal is designed for those students who wish to participate in a vocal ensemble. Large and small vocal groups will be utilized. Prior experience is not required. Areas of traditional vocal music, pop, jazz, and multi-part music will be employed. Areas of music history, world music, music theory and composition will be explored. Performances outside the regular school day are required.

*\*\*Special Note: Performances outside the regular school day are required.*

### **956 GUITAR ENSEMBLE**

Grades 9 – 12

Guitar Ensemble is designed for those students who wish to participate in a performance ensemble for guitar or bass guitar. Prior experience with an instrument is preferred, but not required. Admission for students with no musical experience with guitar may be granted by the teacher. Use of school owned instruments is limited. Areas of traditional guitar music, jazz, blues, rock, music history, music theory and composition, and world music will be explored. *\*\*Special Note: Performances outside the regular school day are required.*

## EMERGENCY SERVICES

### **280 CRIMINAL JUSTICE (Closed for the 2022-2023 SY)**

Grades 10 – 12

Criminal Justice is an introduction to the inner workings of the three significant law functions within the United States: Law Enforcement, Courts, and Corrections. This course will give the students an overview of policing in America including criminal investigations and the implementation of community based policing. The course will also focus on enforcement and apprehension of criminals at the federal, state, and local levels. The course will discuss and explain the prosecution, disposition, and incarceration of those suspected of committing criminal offenses, as well as both the juvenile CJ system and the adult CJ system and how they vary. Students will interact with members of law enforcement, corrections, and the court system as a means for learning from their professional experiences.

### **780 INTRO TO FIREFIGHTING AND EMS SERVICES (Closed for the 2022-2023 SY)**

Grades 11 - 12

Introduction to Fire Fighting and Emergency Medical Services The objective of this course will be to give students an overview of the emergency services field as a possible career choice. At the completion of this course students will be able to demonstrate a working knowledge of Fire and Emergency Medical Services. Students that choose this introductory course will be instructed utilizing the same information taught at the Mass Fire Academy. Students will be given the opportunity to observe or have limited participation in live fire service training drills, which will be arranged during the course with permission from the student's guardian. Training to become a fire fighter or EMT is challenging. The art and science of extinguishing a fire or taking care of an injured person is more complex than most people imagine. This course will challenge students through a series of scenario based incidents and problem solving exercises. During this class, students will learn the importance of situational awareness and guidelines of how to react during a crisis. Students will also learn the roll and responsibilities Fire Fighters and EMT's play in their community.