

Ayer Shirley Regional High School



Program of Studies 2018 – 2019

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PRINCIPAL'S LETTER

Dear Parents/Guardians and Students:

Welcome to Ayer Shirley Regional High School. We look forward to providing you with an education that will prepare you for success in the 21st century. We want to tap your potential, bring out your passion, and match your skills and talents to a personalized course of study. As one student commented, "ASRHS students receive a private school education at a public school price."

The goal of this Program of Studies is to guide your high school planning for the next four years. This Program of Studies contains key information including graduation requirements, course descriptions and prerequisites, the different options one may choose while at ASRHS, as well as information about our strong elective offerings. You are encouraged to use your personal goals, strengths, and interests to guide your decision-making in course selection. Parents/guardians, teachers, and school counselors will work closely together to ensure each student is successful during their high school career.

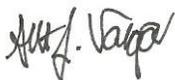
We are pleased to offer a variety of courses and identified pathways which all lead to the successful completion of high school:

- Advanced Placement (AP) courses: Biology, Chemistry, Physics 1, US. Government and Politics, English Literature and Composition, English Language and Composition, Calculus AB, Calculus BC, Statistics, and Computer Science Principles A.
- A one to one Google Chrome environment.
- Courses in civics and partnerships with the Ayer Board of Selectmen and Ayer Public Access Corporation.
- Mass Core Four Year Pathway
- Honors/AP/Early College Pathway – college credit for early college and AP courses
- STEM Pathway – concentration in science, technology, engineering, and mathematics courses
- **NEW!** Humanities Pathway – concentration in English, world language, studio art, digital art, and music – for students pursuing higher education in the liberal arts
- Dual enrollment with any state college or University (high school and college credit will be earned)
- International student partnerships
- Internships to explore career pathways
- Edgenuity online course offerings
- Travel abroad experiences with EF Tours

Our highly qualified faculty is well trained and truly enjoys working with adolescents in the classroom, on the athletic fields, and in other extra-curricular activities. Our teachers maintain high standards and we continue to develop new courses to provide students with the necessary skills to be college and career ready. Additionally, we have a wide range of extra-curricular programs including the following: student government, Mock Trial, music offerings, glee club, dramatic arts, Model U.N., FIRST Robotics, Leadership Club, and a full range of athletic programs.

We look forward to working with you over the next four years to help each student maximize their learning opportunities with the goal of making sure each student is in the best position to make an informed decision about the next step in their college or career journey. For additional information on how to achieve success in high school and beyond, view The ABC's of Success at <https://abcs.sites.digital.mass.gov>.

Sincerely,



Albert J. Varga, Principal

DISTRICT VISION STATEMENT

Our vision is to connect, engage, and inspire all students in the Ayer Shirley Regional School District to reach academic excellence. We, the educators of the Ayer Shirley Regional School District, will instill habits of reflection and inquiry to challenge our students in setting ambitious academic and personal goals. Students will develop a strong voice to express their thoughts and ideas in the community, and the confidence to showcase their talents and successes in preparation for entry into college and the world of work. 2014

DISTRICT MISSION STATEMENT

Learn ~ Grow ~ Explore ~ Connect ~ Collaborate ~ Communicate

The mission of the Ayer Shirley Regional School District is to educate - and to graduate - all of our students, and to foster a safe and respectful environment where each student develops the skills, character, and values needed to become a productive member of the global society. 2011

HIGH SCHOOL VISION STATEMENT

It is the mission of Ayer Shirley Regional High School, in partnership with parents and community members, to develop self-motivated, life-long learners, who are active and productive contributors to their communities, and who respect one another and honor diversity. In a safe environment, the school will promote an atmosphere of academic excellence, provide opportunities for students to be challenged, and meet the learning needs of all.

STATEMENT OF ACCREDITATION

ASRHS is accredited by the New England Association of Schools and Colleges, Inc., NEASC, a nongovernmental, nationally recognized organization whose affiliated institutions include elementary schools through collegiate institutions offering postgraduate education.

Accreditation by the NEASC is not partial, but applies to the institution as a whole. As such, it is not a guarantee of the quality of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution. Inquiries regarding the status of an institution's accreditation by the NEASC should be directed to the administrative staff of the school or college. Individuals may also contact the Association via mail at:

New England Association of Schools and Colleges, 209 Burlington Road, Bedford, MA 01750-1433 or via telephone at 617-271-0022.

DISTRICT CORE BELIEFS

- We have high expectations for all students.
- Every student deserves a quality education.
- We believe in a personalized learning environment.
- Successful students are independent thinkers and doers, and persevere in finding solutions to problems.
- An educated child is one who has developed and evolved as a “whole child” – in the academic, social, emotional, personal and cultural domains.
- Habits of reflection, setting goals, and measuring one's progress support lifelong learning.
- Respect for self, property, and others are essential to a healthy learning community.
- Psychological and physical safety are necessary conditions for learning.
- Service to others builds character, is supportive of personal growth and career development, and connects students to the real world.
- Educators, students, families, and communities collaborating together results in high quality educational programming.

PROMOTION AND GRADUATION CRITERIA

Promotion from grade to grade is determined by credits earned through successful completion of scheduled courses. Credits are allotted on the basis of the amount of time that a class meets.

Students will be required to take a full academic load eliminating free periods. The number of credits listed below must be earned prior to the beginning of the school year in order for a student to be promoted to the next grade level. Students must earn 30 credits for promotion from grade nine to ten, 65 credits for promotion from grade ten to eleven, 105 credits for promotion from grade eleven to twelve, for a total of 135 credits in order to meet the local graduation requirement.

In addition to local graduation requirements, Competency Determination (CD) is a requisite for high school graduation under Massachusetts' state law, which requires students to demonstrate mastery of a common core of skills, competencies, and knowledge in the areas of Mathematics, English Language Arts, and Science & Technology/Engineering as measured by the MCAS exam. Competency Determination is achieved by students earning a score of "proficient" on each of the above mentioned MCAS exams. Students who pass MCAS but do not reach proficiency will be placed on an Educational Proficiency Plan. This plan allow students to reach proficiency and complete all the ASRHS graduation requirements simultaneously.

Students transferring to ASRHS who have successfully met the standards of their previous school will have credits transferred in order to meet the requirements of Ayer Shirley Regional High School. It will be necessary for these students to meet ASRHS requirements from their date of entry. Transfer students will be ranked after two semesters of attending ASRHS. Students participating in dual enrollment are not included in class rank and GPA. Rank and GPA for dual enrollment students are based on the courses completed at Ayer Shirley Regional High School.

GRADE POINT AVERAGE

Grade point averages are based on grades and on the weight assigned to these grades according to the course difficulty level. A student's GPA is a part of his/her transcript and permanent record and is adjusted only as final grades are earned and credits are awarded at the end of the school year. Mid-year or third quarter updates are based upon quarter grades for year-long courses and includes final grades of semester courses.

COMMUNITY SERVICE PROGRAM

Community service encourages students to become valuable resources to their communities through active participation in service programs and activities. Hours will accumulate as of the first day of school in grade nine. Students will fulfill 50 hours of community service as a requirement for commencement. This requirement will be prorated for students entering ASRHS after their sophomore year. Students are responsible for finding their own community service placements. Community service can be completed after school, on weekends, on vacations, and during the summer following grades 9, 10, and 11. Booklets are available in the school counseling office and on the ASRHS website.

NAVIANCE

Ayer Shirley Regional High School has partnered with Naviance, an online software program, to provide a variety of tools for achievement through academic, career and college planning. These tools are located in *Family Connection*, a special section of the Naviance website for students and families. *Family Connection* provides access to online resources, facilitates communication with teachers and school counselors, and provides support to students as they complete college and career readiness activities such as completing a resume, requesting letters of recommendation, searching for colleges/careers, or applying for scholarships. Families will be provided with information at the start of the school year to establish secure *Family Connection* user accounts.

GRADUATION REQUIREMENTS

The MassCore is a state recommended rigorous program of study that aligns high school course work with college and workforce expectations. ASRHS is striving for all students beginning with the graduating class of 2020 and beyond to meet both ASRSD and MassCore requirements. In addition, students are also required to meet the Competency Determination (CD) under Massachusetts’ state law, which requires students to demonstrate mastery of a common core of skills, competencies, and knowledge in the areas of Mathematics, English Language Arts, and Biology or Science & Technology/Engineering as measured by the MCAS exam. Competency Determination is achieved by students earning a score of “proficient” on the Mathematics and English exams, and a score of “passing” on the Biology or Science & Technology/Engineering exam. Students who pass MCAS but do not reach proficiency will be placed on an Educational Proficiency Plan. This plan allows students to reach proficiency and complete all the ASRHS graduation requirements simultaneously.

Area of Study/Subject	ASRHS	MassCore
English	4 years	4 years
Math	4 years	4 years
Science	4 years (3 lab-based)*	3 years lab-based
History/Social Science	4 years	3 years
World Language	2 years**	2 years**
Fine Arts (visual, music, etc.)	1 year	1 year
Career and technical education, or any other subject areas	1 year	1 year 5 additional “core” courses
Physical Education/Wellness	4 (1 semester per year, 4 semesters total)	As required by state law, (MG.L. c. 71, s. 3)
Additional Learning Opportunities	<ul style="list-style-type: none"> • Advanced Placement classes • Dual enrollment/middle college • Senior project coursework • Online courses for high school or college credit • Service or work-based learning • Internship/externship 	<ul style="list-style-type: none"> • Advanced Placement classes • Dual enrollment/middle college • Senior project coursework • Online courses for high school or college credit • Service or work-based learning
Community Service	50 hours community service	

Typically college and universities require a year each of the following: **Biology, Chemistry, and Physics.*

***Students must take two years of the **SAME** world language.*

PARTNERSHIP OPTIONS FOR COURSE CREDIT

EDGENUITY

Edgenuity partners with schools and districts around the country to deliver blended learning through core courses, credit recovery, and supplemental instruction. The goal is to ensure students and teachers have access to engaging resources that propel success and meet students' diverse learning needs. Pairing online curriculum and real-time data with teacher-led instruction makes it possible to truly personalize learning for every student.

The successful Edgenuity student is self-motivated, a hard worker, tech savvy, and has the ability to work independently. ASRHS students can take their Edgenuity course as part of their course schedule during the day at ASRHS. A computer area has been established in the library for students enrolled in Edgenuity.

Students should see their school counselor if interested in taking an Edgenuity course. Registration is done on a first come, first served basis, and space is limited.

MOUNT WACHUSETT COMMUNITY COLLEGE (MWCC) MIDDLE COLLEGE PROGRAM

Students become eligible to enroll in MWCC courses in their junior and senior year. Students must have a 3.0 GPA and be in good academic standing. They must also obtain a proficient score on the Accuplacer (a placement exam which assesses college readiness in English – reading and writing, and math) and is required by MWCC in order to receive college credit.

DUAL ENROLLMENT & COLLEGE CREDIT

Students have the option of taking courses at local colleges while enrolled at ASRHS. College courses may be used for ASRHS graduation requirements with prior approval by the ASRHS Counseling Department. Each 3credit college course is equal to 5 credits at ASRHS. College courses are on a self-pay basis; however, opportunities for dual enrollment may be available depending on state funding. Students should make arrangements through their counselor if interested in this option.

COURSE LEVELS

ACADEMIC COURSES

These courses are appropriate for all learners and are not considered college preparatory. Students are expected to have basic study habits and work at a steady pace.

COLLEGE PREPARATORY COURSES

The content and rigor prepares students for a post-secondary college level education. These courses are more intensive and demanding than academic courses. Students are expected to exhibit good basic study skills, consistent homework completion and work at a moderate pace.

HONORS COURSES

Honors level classes are rigorous, intensive, challenging courses where students are expected to be independent learners as well as exercise critical, creative and analytical thinking skills and work at an accelerated pace. Students are expected to have teacher recommendation in order to enroll in honors level courses. These courses are identified with the "H" code in the program of studies.

ADVANCED PLACEMENT COURSES

Advanced Placement (AP) courses are designed to instruct students at a college level and prepare them for the Advanced Placement subject exams in the spring semester. Colleges and universities determine what score students must earn to have the AP course accepted at their institution. AP courses are most rigorous and students are expected to have exceeded the honors course level expectations to enroll in the courses. In the event an AP course is taught concurrently with an honors course, AP students will be expected to complete additional assignments in greater depth than the honors students. These courses are identified with the "AP" code in the program of studies. **Students who elect to take AP courses are required to take the AP exam for that course.**

RECOMMENDED PATHWAYS OF STUDY

In an effort to assist students and parents/guardians in understanding the options that ASRHS has to offer, we have established four pathways of study for graduation that students may select as a primary focus area: Mass Core, Honors/Early College/AP, STEM, and Humanities. Within each recommended pathway of study there are a variety of rigorous core academic courses from which students may choose with the assistance of their parents/guardians in consultation with their school counselor. Students are able to choose a recommended pathway of study or modify their course of study throughout their high school experience. Please note that there are other required courses/criteria that must be successfully completed in order to meet promotion and graduation requirements. Please see ASRHS graduation requirements for additional information.

MASS CORE

Strongly recommended by the Massachusetts Department of Elementary and Secondary Education for all high school students to complete.

9 th GRADE	10 th GRADE	11 th GRADE	12 th GRADE
Humanities English I CP	Humanities English II CP	American Literature CP	World Literature CP
Humanities U.S. History I CP	Humanities U.S. History II CP	Modern World History CP	U.S. Government CP
Integrated Math I CP or Integrated Math II CP	Integrated Math II CP or Integrated Math III CP	Integrated Math III CP or Advanced Mathematical Applications	Advanced Mathematical Applications, Advanced Algebra, Statistics H or AP
Biology CP	Chemistry CP	Physics CP	Science Elective
World Language	World Language	Elective	Elective or Senior Seminar

HONORS/AP/EARLY COLLEGE

9 th GRADE	10 th GRADE	11 th GRADE	12 th GRADE
Humanities English I H	Humanities English II H	American Literature H or AP Language and Composition	World Literature H or AP Literature and Composition
Humanities U.S. History I H	Humanities U.S. History II H	Modern World History H and Sociology H & Psychology C.C.	U.S. Government H or AP Government
Integrated Math I/II H or Integrated Math II H or Integrated Math II/III	Integrated Math II/III H or Integrated Math III H	Pre-Calculus H or AP Statistics	Statistics H, AP Calculus AB or BC or AP Statistics
Biology H	Chemistry H	AP Chemistry, AP Biology, AP Physics 1 or Physics H	AP Physics, Physics H or AP Biology
World Language	World Language	AP Computer Science Principles	Elective or Senior Seminar

***Students are able to enroll in AP classes, early college, or dual enrollment courses for college credit.**

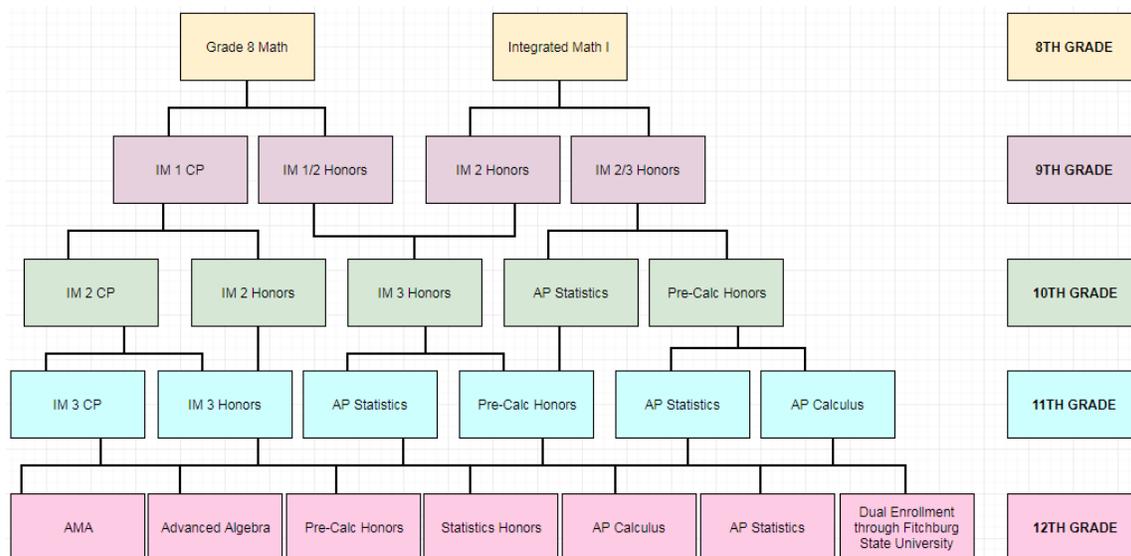
STEM

9 th GRADE	10 th GRADE	11 th GRADE	12 th GRADE
Principles of Engineering I or Computer Programming	Principles of Engineering I or Principles of Engineering II	CAD I Principles of Engineering II AP Computer Science Principles	CAD I CP CAD II CP AP Physics, Physics H Dollars & Sense Senior STEM Internship

HUMANITIES – NEW!

Concentration	9 th GRADE	10 th GRADE	11 th GRADE	12 th GRADE
World Language	World Language 1 or World Language 2	World Language 2	World Language 3H	World Language 4H AP World Language
Studio Art	Visual Problem Solving or Drawing CP	Studio Art I	Studio Art II	Studio Art Portfolio H
Digital Art	Visual Problem Solving	Photo Video I or Computer Art and Design I	Photo Video II or Computer Art and Design II	Digital Studio Portfolio
Music	Band/Choir	Band/Choir	Band/Choir Music Theory I	Band /Choir Music Theory II

MATHEMATICS SEQUENCE OF STUDY AYER SHIRLEY REGIONAL HIGH SCHOOL



AMA = Advanced Mathematical Applications

COURSE DESCRIPTIONS

The following course descriptions have been prepared to assist and guide students and parents in the selection of those subjects best suited to meet their individual needs, abilities, and objectives. Each student is expected to develop a four-year plan with the aid of his/her parents, teachers, and counselor. Attention should be given to interests and preferences, in order to ensure that a student's program fulfills his/her future occupational needs as well as graduation requirements, course prerequisites, and other considerations.

Please note: For all course descriptions, S = Semester, Y = Year, CP = College Preparatory, CP

H = Honors, and AP = Advanced Placement

COMPUTER EDUCATION

WEB DESIGN

CRS 1642 GR 10-12 CR 2.5 S

In this class, students will learn the basics of designing and developing a web site. Topics will include the Internet, web design planning and navigation, web design principles, interactivity, and site management. Students will become familiar with Cascading Style Sheets.

COMPUTER APPLICATIONS

CRS 1652 GR 10-12 CR 2.5 S

This course is designed to help students acquire software application skills they can apply in classroom and professional settings. Students will use MS Office software to create word processing documents, spreadsheets, presentations, and simple databases. In addition, students will learn about the Google suite of products and extensions.

together. The projects and material in this course will have a focus on storyboarding, writing and practicing proper pre-production filmmaking techniques.

VIDEO PRODUCTION B CRS 1661 GR 9-12 CR 2.5 S2 ONLY

In addition to learning about the science and psychology behind filmmaking, students will participate in multiple group-based projects where they will assume a production role and construct a video from start to finish together. The projects and material in this course will have a focus on editing, special effects and other post-production practices, utilizing the Adobe suite

AP COMPUTER SCIENCE PRINCIPLES

CRS 1669 GR 10-12 CR 5.0 Y

AP Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. AP Computer Science Principles will give students the opportunity to use technology to address real-world problems and build relevant solutions. Students are required to take the AP Exam in May.

ENGLISH

HUMANITIES ENGLISH I CP CRS 1126 GR 9 CR 5.0 Y

This required course presents the political, ethical, behavioral, and intellectual foundations of society through an integrated study of world literature and U.S. history, covering the years 1763 - 1877. Students will learn the relationship between ideas and events and relate them to the present within the context of reading, writing, listening, and speaking. This course is an integrated course taken in the same block with the Humanities I course listed under the Social Studies offerings.

HUMANITIES ENGLISH I H CRS 1127 GR 9 CR 5.0 Y

This required course presents the political, ethical, behavioral, and intellectual foundations of society through an integrated study of world literature and U.S. history, covering the years 1763 - 1877. Students will learn the relationship between ideas and events and relate them to the present within the context of reading, writing, listening, and speaking. This course is an integrated course taken in the same block with the Humanities I course listed under the Social Studies offerings. This honors program is a more in depth analysis of topics presented and includes more readings, papers, and projects.

HUMANITIES ENGLISH II CP CRS 1128 GR 10 CR 5.0 Y

This required course presents the political, ethical, behavioral, and intellectual foundations of society through an integrated study of world literature and U.S. history, covering the years 1877 to present. Students will learn the relationship between ideas and events and relate them to the present within the context of reading, writing, listening, and speaking. This course is an integrated course taken in the same block with the Humanities II course listed under the Social Studies offerings.

HUMANITIES ENGLISH II H CRS 1129 GR 10 CR 5.0 Y

This required course presents the political, ethical, behavioral, and intellectual foundations of society through an integrated study of world literature and U.S. history, covering the years 1877 to present. Students will learn the relationship between ideas and events and relate them to the present within the context of reading, writing, listening, and speaking. This course is an integrated course taken in the same block with the Humanities II course listed under the Social Studies offerings. Academic demands are intensified and challenging as topic analysis ventures beyond the scope of a survey course.

SHAKESPEARE CRS 1115 GR 10-12 CR 2.5 S

This elective course is offered during alternating years and will afford students the opportunity to further explore Shakespeare beyond the famous tragedies. Students will also compare the classic to the modern film versions, and develop their own interpretation of scenes.

AMERICAN LITERATURE H **CRS 1140** **GR 11** **CR 5.0** **Y**
This required course presents the various genres of American literature from early colonial times to the present day in the context of reading, writing, listening, and speaking. Research techniques are taught and a research project is required. SAT preparation is given. The honors program is a more in depth analysis of topics presented and includes more readings, papers, and projects.

AMERICAN LITERATURE CP **CRS 1142** **GR 11** **CR 5.0** **Y**
This required course presents the various genres of American literature from early colonial times to the present day in the context of reading, writing, listening, and speaking. Research techniques are taught and a research project is required. SAT preparation is given.

ADVANCED PLACEMENT LANGUAGE AND COMPOSITION

CRS 1148 **GR 11-12** **CR 5.0** **Y**
This course offer a preparation for college level writing experience and simulates a first-year college composition class by preparing students to “write effectively and confidently in their college courses across the curriculum and in their professional and personal lives” (College Board). Students will read and analyze a wide range of nonfiction texts and images—from newspaper editorials, to travel writing, to literary non-fiction, to biography, to sermons, to era appropriate photographs, paintings and advertisements. Some relevant fiction selections may be incorporated. In terms of reading, students will learn how to analyze and critique a wide range of nonfiction texts. Students will become familiar with the rhetorical strategies that make for effective, persuasive writing. Specific attention will be paid to the development and analysis of a written argument. Students will learn how to identify the elements of a strong argument and will grow to improve their own written arguments. Finally, students will improve their mastery of standard written English and will grow in their ability to produce “analytic and argumentative compositions that introduce a complex idea and develop it” through the use of evidence. Students will continue to develop their ability to revise their own writing. Students are required to take the AP Exam in May.

ADVANCED PLACEMENT LITERATURE & COMPOSITION

CRS 1149 **GR 12** **CR 5.0** **Y**
Following the guidelines established by the AP Course Audit, this class is a freshman college level World Literature and Composition course. It is open to seniors on the basis of ability, interest, and motivation. This course will not only cover test preparation, but also includes literary selections each demanding critical, rigorous reading and analysis. Students are required to take the AP Exam in May.

WORLD LITERATURE H **CRS 1150** **GR 12** **CR 5.0** **Y**
This required course presents the various genres of world literature with a strong concentration in British literature, in the context of reading, writing, listening, and speaking. The honors program is a more in depth analysis of topics presented and includes more readings, papers, and projects. *This is a prerequisite for AP Literature & Composition.*

WORLD LITERATURE CP **CRS 1152** **GR 12** **CR 5.0** **Y**
This required course presents the various genres of world literature with a strong concentration in British literature, in the context of reading, writing, listening, and speaking.

CREATIVE WRITING **CRS 1160** **GR 10** **CR 2.5** **S**
This elective course is offered during alternating years and will provide students the opportunity to write and expand their writing repertoire by having them experiment with different forms and purposes of writing. The course will provide opportunities for students to publish their work. The class will produce a literary magazine.

CHILDREN’S LITERATURE **CRS 1164** **GR 10-12** **CR 2.5** **S**
This elective course is offered during alternating years and will take students on an adventure through the happy ever after that fairytales create. This course does not simply involve reading the fairytales that Disney creates, but the various other fairytales that have been created over time from other cultures. Throughout this course fairytales will be read in order to discover how the perception of a fairytale changes as society changes and how the social structure of a specific time period effects the content of the fairytale.

SHORT STORIES**CRS 1166****GR 11-12****CR 2.5****S**

This elective course is offered during alternating years and is an introduction to literature through various short stories written in the nineteenth and twentieth centuries. This survey of the short story genre explores realism, detective fiction, sensation, and gothic and will explain some essential elements of each. Students read short stories written by authors including, but not limited to the following: Poe, King, Jackson, Twain, James, Kipling, Lawrence, Woolf, Mansfield, Faulkner, Chekov, and Shaw.

THE ART OF COMMUNICATION**CRS 1167****GR 9 – 12****CR 2.5****S**

This elective course provides students with an opportunity to improve their speaking and listening skills. This course will help students expand their inter-personal communication skills and develop their personal awareness and confidence. Emphasis will be placed on audience analysis, research, organization, preparation, and effective use of language and delivery for various types of speeches and communications.

CREATIVE POETRY**CRS 1168****GR 10-12****CR 2.5****S**

This elective course is offered during alternating years and challenges students to look deeper within themselves, the natural world and the world their imagination can create. Throughout creative poetry students will look at various forms of poetry written by a number of well-known poets from the 1600's to the present. Every week or two a different form of poetry will be introduced, in which students will discover the history of various forms of poetry as well as important, influential poets. Various poetic forms and how they have changed throughout time will also be analyzed. During this course students will read and analyze various poems, as well as write poetry.

MULTICULTURAL LITERATURE**CRS 1277****GR 10-12****CR 2.5****S**

This elective course is offered during alternating years and introduces students to an alternative view of literature. Students read African-American, Latina-American, Native-American, and Asian-American authors and immerse themselves in these cultures through the study of film, non-fiction, art, food, and music.

INTRODUCTION TO GERMAN CULTURE**CP CRS 1279****GR 10-12****CR 2.5****S**

This elective course is offered during alternating years and introduces students to rudimentary conversational German, as well as basic German geography, philosophy, literature, and art. Students are exposed to contemporary German films, music, magazines, and cultural practices.

HEROES AND VILLAINS**CRS 1171****GR 9-12****CR 2.5****S**

In this elective course, students will read literature and watch movies and documentaries that will contribute to the discussion: what makes a good hero or villain? Characterization of such classic villains as Shakespeare's Iago will be compared and contrasted to modern villains like Hannibal Lecter. Ancient Achilles will be measured with recent heroes such as Batman and Erin Brokovich. Students will also engage in creative writing pieces in which they shape their own villains and heroes. A discussion of why mankind has an enduring need for heroic figures and their counterpart, the villains, will be the essential question for this course.

FINE/VISUAL ARTS**VISUAL PROBLEM SOLVING****CRS 1810****GR 9-12****CR 2.5****S**

In this class, students will be introduced to a variety of media and techniques and acquire a basic visual arts vocabulary. Students will learn to identify the elements and principles of art and design in their work and the work of others. Projects will be exploratory in nature and may involve drawing, painting, collage, printmaking or ceramics.

PHOTO/VIDEO I**CRS 1801****GR 9-12****CR 2.5****S**

This course is an introduction to photography and video. Topics will include basic camera operation, shot composition, and the use of the computer as an editing tool.

PHOTO/VIDEO II	CRS 1802	GR 10-12	CR 2.5	S
This course is a continuation of Photo/Video I. This course will help students develop a stronger understanding of the aesthetic and technical processes essential to the field of photography. Course topics include artistic & technical focus, digital printing, film photography, photographic lighting, the history of photography, and alternative photographic processes.				
COMPUTER ART & DESIGN I	CRS 1803	GR 9-12	CR 2.5	S
This course will introduce students to the use of the computer as an art and design tool. Students will be exposed to a variety of programs within the Adobe Creative Suite and use them for computer illustration, graphic design, and animation.				
COMPUTER ART & DESIGN II	CRS 1804	GR 10	CR 2.5	S
This course is a continuation of Computer Art & Design I. Students will expand their knowledge of tools and techniques available within the Adobe Creative Suite and apply them to a variety of computer illustration, graphic design, and animation projects. Students must have successfully completed Computer Art & Design I to enroll.				
DIGITAL STUDIO PORTFOLIO	CRS 1805	GR 11-12	CR 5.0	S
This course is designed for the student who has demonstrated proficiency with tools and techniques in the Adobe Creative Suite and has a strong interest in photography, video, computer illustration, graphic design, and/or animation. Students will develop their own design problems and complete projects for local clients. Students must have successfully completed Photo/Video I & II and/or Computer Art and Design I & II and have instructor approval to enroll.				
CERAMICS I	CRS 1822	GR 9-12	CR 2.5	S
This course is an introduction to clay hand-building techniques. Students will use pinch, coil, and slab methods to build functional and decorative pieces including bowls, pots, and boxes. Students will also model sculptural figures in clay. All projects will be glazed and fired.				
CERAMICS II	CRS 1827	GR 9-12	CR 2.5	S
In this course, students develop hand building skills learned in Ceramics I, deepen their understanding of ceramic processes including firing, and are introduced to wheel throwing. An emphasis is placed on more complex techniques in ceramics such as mold making, surface decoration and glazing, and armature building. Students are encouraged to work more independently and have greater responsibility for maintaining the workspace.				
STUDIO ART I	CRS 1806	GR 9-12	CR 2.5	S
This course introduces students to a variety of two-dimensional visual arts materials and techniques in drawing, painting, collage, and printmaking. We will explore how images are put together and how they make meaning and communicate ideas and messages to others.				
STUDIO ART II	CRS 1807	GR 10-12	CR 2.5	S
This course is a continuation of Studio Art I and introduces students to new techniques in drawing, painting, collage, and printmaking. Students will expand their knowledge about art making in a thematic way. The course will have a common theme that bridges projects and assignments. Students must have successfully completed Studio Art I to enroll.				
DRAWING	CRS 1824	Grades 9 -12	CR 2.5	S
This course will provide students with a sequential series of lessons designed to improve individual drawing skills. The purpose of this course is to improve skills to a point where student results match their expectations.				
STUDIO ART PORTFOLIO H	CRS 1808	GR 11-12	CR 5.0	Y
This course is for students who would like to create an art portfolio for college and are interested in taking Studio Art AP, or have a strong personal interest in visual art. Projects will be developed on a more individual basis depending on student interests and portfolio needs. Students will become proficient in using the critique process to give and receive feedback on work. Students must have successfully completed Studio Art I and II or have instructor approval prior to enrolling.				

ADVANCED STUDIO ART CRS 1809 GR 12 CR 5.0 Y

This course is for students who would like to submit a 2-Dimensional Design, 3-Dimensional Design, or Drawing portfolio to the College Board for AP scoring. Ideally the student has begun the process in Studio Art III H. The portfolio consists of three sections: quality, breadth, and concentration. A major component of the course is the concentration, which is an in-depth exploration of an artistic problem or idea. The course is usually taken as an honors independent study, with a visual arts teacher.

HEALTH/PHYSICAL EDUCATION

HEALTH/WELLNESS 9 CRS 1915 GR 9 CR 2.5 Y

This required course will include components of fitness that are blended with the presentation and understanding of information relating to, resistance training, common illnesses, sexually transmitted diseases, stress management, health care, substance abuse and managing personal lifestyles.

HEALTH/WELLNESS 10 CRS 1916 GR 10 CR 2.5 Y

This required course provides students with and overview of nutrition principles that are necessary for physical and mental wellness. Students will learn how to make healthy life choices. The course will emphasize on digestion, basic nutrients, weight management, sports and fitness and life span nutrition. The course will allow students to make intelligent decisions regarding available sources of nutrition and understand how nutrition effects mental and physical performance.

PHYSICAL EDUCATION 9/10 CRS 1922 GR 9-10 CR 2.5 S

This elective physical education course is offered for freshmen and sophomores. This class focuses more on skill building and cooperative games. The major focus is to improve the five major fitness components cardiovascular endurance, muscular strength, muscular endurance, flexibility, and body composition.

PHYSICAL EDUCATION 11/12 CRS 1923 GR 11-12 CR 2.5 S

Juniors and seniors are typically in this section. This section focuses on fitness for life and activities that can be done long after leaving Ayer Shirley Regional High School. The major focus is to improve the five major fitness components cardiovascular endurance, muscular strength, muscular endurance, flexibility, and body composition.

ALTERNATIVE PHYSICAL EDUCATION CRS 1921 GR 9-12 CR 2.5 S

This course offers a variety of alternative physical activities predicated on building basic skill development and students' self-esteem. The curriculum is designed for students to participate in activities that are less intrusive and invasive than that of competitive sports or games. Core content covers hiking, badminton, ping pong, dance, and cooperative team building games. The primary focus of this course is derived from conventional physical education and incorporate alternate manners to participate in physical activity.

FITNESS EDUCATION CLASS CRS 1924 GR 9-12 CR 2.5 S

This course is an introduction to the basic fitness principles working to create a healthy body composition. Students will participate in cardiovascular, muscular strength, muscular endurance and flexibility training programs. Students will learn the safety techniques to give them an efficient as well as a safe workout. Students will be evaluated by their progress they make in their fitness journals. Students will also have to create their own fitness program that they can easily monitor and track their performance. Students will also write a paper on a specific fitness topic for their final project.

OUTDOOR EDUCATION

CRS 1927 GR 11-12 CR 2.5 S

This environmental/survival skills course will focus on using the outdoor world and real life survival skills in the wilderness to broaden environmental awareness through real life survival scenarios as well as skills that can be applied in the wilderness. The class will consist of weekly hikes and outdoor ED demonstrations, as well as archery assessments to track the progress of the individual student. Students will have to demonstrate self-confidence, motivation, concentration and focus. Core content will include safety, technique, the proper use of equipment/surroundings, self-improvement, and leadership skills. Some class time will be held outside so students should dress appropriately.

MATHEMATICS

Placement into a high school math course will be based on, but not limited to, academic achievement (grades), work ethic (homework), attendance record, results of standardized testing, and teacher's assessment of potential. When "Special Permission" is listed as a prerequisite for a course, this typically means that a prior math teacher must recommend a student for that course. Parents and/or students should contact their teacher or school counselor if they feel they need special permission to take a course.

INTEGRATED MATH I CP CRS 1465, 1470 GR 9 CR 5.0 Y

This course is the first in a series of three integrated math courses, designed to correspond with the new Common Core standards. Integrated Math 1 is designed to further explore the concepts introduced in the middle grades. In this course, students will build on their math vocabulary, a key component in math education. Significant focus will be given to the manipulation of different linear expressions and functions in order to find their solutions. Students will also be introduced to properties of triangles to prepare them for higher level Geometry. Graphing calculators are recommended for this course.

INTEGRATED MATH I/II HONORS CRS 1466, 1476 GR 9 CR 5.0 Y

This 9th grade honors math course will cover topics from Integrated Math I and Integrated Math II Honors in a sequence that allows for deep conceptual understanding of all topics. Students will make conceptual connections between types of functions (linear, quadratic, exponential, trigonometric, and polynomial), congruence and similarity in geometry, trigonometry, statistics, and probability. Emphasis will be placed on developing students' critical thinking and problem solving skills. **Pre-Requisite:** B or higher in Pre-Algebra, teacher recommendation, and approval from the curriculum leader, school counseling, and high school administration

INTEGRATED MATH II CP CRS 1471 GR 9-10 CR 5.0 Y

This course is the second in a series of three integrated math courses, designed to correspond with the new Common Core standards. Integrated Math 2 is designed to further explore the concepts that students learned in Integrated Math 1. In this course, students will extend their knowledge of the number system to include complex numbers. They will expand their triangle-sense to encompass similarity and basic trigonometry. Significant focus will be given to quadratics to provide students with the foundation necessary for future courses. Graphing calculators are recommended for this course. **Pre-requisite:** Completion of Integrated Math 1 CP or special permission from the math department liaison and school counselor.

INTEGRATED MATH II HONORS CRS 1473 GR 9-10 CR 5.0 Y

This course is the second in a series of three accelerated integrated math courses, designed to correspond to the new Common Core Standards. This course covers understanding functions in depth including linear, exponential, quadratic, trigonometric, and polynomial functions, establishing criteria for congruence and similarity of polygons with an emphasis on proofs, developing an understanding of trigonometry, and expanding understanding of probability. Graphing calculators are recommended for this course. **Pre-requisite:** Completion of Integrated Math 1 and teacher recommendation or Special Permission from the math department liaison and school counselor.

INTEGRATED MATH II/III HONORS CRS 1477 GR 9/10 CR 5.0 Y

This accelerated honors class will complete all of the coursework from Integrated Math II and Integrated Math III Honors in a sequence that will allow students to make conceptual connections among a variety of topics to prepare them to be successful in Calculus level studies. Students will perform in-depth studies of trigonometry, congruence and similarity of polygons, the behavior of functions (trigonometric, logarithmic, exponential, rational, and polynomial), and probability and statistics. It is expected that students who complete this course are on pace to take one or two Advanced Placement Mathematics courses during their junior and/or senior years. Students are required to have a graphing calculator for this course. **Pre-Requisite:** A- or higher in Integrated Math I Honors, teacher recommendation, and approval from the curriculum leader, school counseling, and administration.

INTEGRATED MATH III CP CRS 1467, 1472 GR 10-11 CR 5.0 Y

This course is the third in a series of three integrated math courses, designed to correspond with the Massachusetts' Mathematics Frameworks. Integrated Math III is designed to build on the concepts that students learned in Integrated Math II. In this course, students will deepen their understanding of linear, quadratic, exponential, polynomial, trigonometric, radical, and rational functions. Graphing calculators are recommended in this course. **Pre-requisite:** Completion of Integrated Math II or Special Permission from the math department liaison and school counselor.

INTEGRATED MATH III HONORS CRS 1474 GR 10-11 CR 5.0 Y

This course is the third in a series of two accelerated integrated math courses, designed to correspond with the 2011 Massachusetts' Mathematic Frameworks. This course is designed to build on the concepts students learned in Integrated Math II Honors. In this course, students will deepen their understanding of linear, quadratic, exponential, polynomial, rational, radical, and trigonometric functions. This course will also focus on applying algebraic, geometric, and trigonometric concepts to real world situations and strengthening students' problem solving skills. Graphing calculators are recommended in this course. **Pre-requisite:** Completion of Integrated Math II and teacher recommendation or Special Permission from the math department liaison and school counselor.

ADVANCED ALGEBRA CP CRS 1449 GR 11-12 CR 5.0 Y

In this course, students will extend their knowledge of topics from Integrated Math III. Specific attention is paid to composition and inverses of functions, applications and graphing of trigonometric functions, trigonometric identities, and conic sections. Additional topics include complex numbers, polar equations and graphs, applications of logarithmic and exponential functions, vectors, and parametric equations. Graphing calculators are required in this course. **Pre-requisite:** Completion of Integrated Math III or Special Permission from the math department liaison and school counselor.

PRE-CALCULUS HONORS CRS 1455 GR 11-12 CR 5.0 Y

In this course, students will extend their knowledge of topics from Integrated Math 3 in preparation for Calculus. We begin by solidifying their grasp of functions, polynomials and exponential/logarithmic functions. Trigonometry -- functions, graphs, identities, equations -- will be a heavy focus. Other topics include Conic Sections and (time permitting) Sequences, Vectors, Matrices and Limits. Graphing calculators are required in this course. **Prerequisite:** Completion of Integrated III Honors or Special Permission from the math department liaison and school counselor.

ADVANCED MATHEMATICAL APPLICATIONS CP CRS 1479 GR 11-12 CR5.0 Y

This course is designed to develop students' problems solving skills. Students will work on applying and expanding on mathematical concepts from previous courses. In this course, students will be asked to work creatively and present group work, research, or solutions both orally and in written form. This course will incorporate various project-based applications of the topics being studied. Topics in this course include an overview of personal finances, some skills necessary to improve financial literacy, navigation, probability, exponential growth and decay, cryptography, architecture, and applications of geometric concepts. Graphing calculators are recommended for this course.

ADVANCED PLACEMENT CALCULUS AB

CRS 1460 GR 11, 12 CR 5.0 Y

In this course students will continue their study of Calculus topics including Limits and Continuity, Derivatives, and Integrals. Each topic will be studied on an abstract level as well as with real life applications in order to prepare students for success in taking the College Board's AP Calculus AB test in May. Graphing Calculators are required in this course. Students are required to take the AP Calculus AB test in May. **Prerequisite:** *Completion of Pre-Calculus Honors and recommendation of Pre-Calculus Honors teacher or Special Permission from the math department liaison and school counselor.*

ADVANCED PLACEMENT CALCULUS BC

CRS 1459 GR 12 CR 10 Y

AP Calculus BC is approximately equivalent to both first and second semester college calculus courses. The year starts learning the AB curriculum, learning limits and continuity, derivative and integral rules and applying these concepts on an abstract level and through real-world applications, including area, volumes of revolution, and arc length. Students will continue into the BC curriculum during the second half of the year, to apply AB concepts to learn different types of equations (polar, parametric, vector-valued) and new topics (such as Euler's method, integration by parts, partial fraction decomposition, and improper integrals), and explore sequences and series. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

To ensure adequate preparation for AP Calculus BC, students should have an understanding of polar equations, sequences and series, trigonometric, exponential and logarithmic functions and identities, and vectors. Students are required to take the BC Calculus exam in May and will receive an AB and BC score for this exam. *Prerequisites: Exemplary performance in Pre-Calculus Honors and teacher recommendation*

STATISTICS HONORS

CRS 1482 GR 11-12 CR 5.0 Y

This course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will gain experience with data exploration, sampling and experimentation, modeling and statistical inference. As part of the course, students will design experiments and studies to collect data and analyze by identifying patterns, important parameters and simulating using mathematical models. *Prerequisite: Completion of Integrated 3 or Special Permission from the math department liaison and school counselor.*

ADVANCED PLACEMENT STATISTICS

CRS 1462 GR 10 -12 CR 5.0 Y

The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. This course draws connections between all aspects of the statistical process, including design, analysis, and conclusions. Additionally, using the vocabulary of statistics this course will teach students how to communicate statistical methods, results and interpretations. Students will learn how to use graphing calculators and read computer output in an effort to enhance the development of statistical understanding. A graphing calculator is required for this course. Students are required to take the AP Statistics test in May. **Pre-requisite:** Recommendation of teacher or Special Permission from the math department liaison and school counselor.

MUSIC

CONCERT BAND CP

CRS 1856/1860 GR 9-12 CR 2.5/5.0 S/Y

The ASRHS Concert Band performs a wide variety of music including marches, light concert music, and standard band literature. Participation is open to all brass, woodwind, and percussion players with middle school band experience, or at the instructor's discretion. Enrollment in this course requires attendance at all scheduled concerts/events.

SCIENCE

PRINCIPLES OF ENGINEERING I CP

CRS 1576 Gr: 9-12 CR 5.0 Y

This is a hands-on course where students will utilize a systems approach and the Engineering Design Process to address real-world complexities in various technological areas including manufacturing and construction. Students will learn skills such as reading, interpreting, and creating engineering drawings along with measurement and the safe use of appropriate tools for specific projects. Students will implement their problem-solving skills in order to design and construct solutions for mock-ups, scale models, and prototypes both from the text and beyond. Through the topics addressed and skills taught, students will become more scientifically and technologically literate citizens so that they can analyze information and use critical thinking processes to make informed decisions. Students in this course will learn the necessary skills in drafting and design to be successful in future studies in engineering, such as Computer Aided Design. Experience in engineering laboratory/projects, and how they relate to theoretical discussion (vice-versa) will set the foundation for examinations and mathematical problems. Students will be expected to examine data, and then extrapolate/draw conclusions. There is an expectation that students will be able to work independently and within their design teams.

PRINCIPLES OF ENGINEERING II CP

CRS 1577 GR: 10-12 CR 5.0 Y

Building upon the skills and content learned in POE I, students will take their knowledge of the design and engineering process one step further, and apply it to solving some of the world's current technological dilemmas including, but not limited to, energy efficiency with regard to ecological and environmental concerns. Students will work collaboratively to design, manufacture, and critically evaluate eco-friendly products with regards to utilizing one or more sources of alternative energy. Through this course's practical projects with real-world connections, students have an opportunity to see how today's engineers bring together science and mathematics to solve some of the most complicated technological issues. Students in this course will learn the necessary skills to be successful in future studies in engineering, such as Computer Aided Design. *Prerequisite: Completion of Principles of Engineering I CP or prior participation on the High School FIRST Robotics team with special permission (please note that Robotics Team participation does not constitute academic credit for Principles of Engineering I).*

BIOLOGY H

CRS 1530 Gr: 9 CR 5.0 Y

Students coming in from 8th grade must be recommended into this class by their current science teacher.. Students will satisfy one of their high school laboratory science requirements by conducting hands-on activities as well as laboratories which utilize Scientific Inquiry skills as outlined in the Massachusetts Science Frameworks. In this class students will study the characteristics that all living organisms share by looking deeper into cell structure, molecular biology, heredity and genetic variation, reproduction, photosynthesis, cellular respiration, evolution, and the interdependence of all life forms on earth. Students who take this course are challenged to use many higher order critical and creative thinking skills in both written and oral work. Student research and oral presentations are included, as are formal written lab reports. All coursework is designed to satisfy the State Frameworks for High School Biology.

BIOLOGY CP

CRS 1532 Gr: 9 CR 5.0 Y

This course is a college preparatory level course for introductory Biology. Students will satisfy one of their high school laboratory science requirements by conducting hands-on activities as well as laboratories which utilize Scientific Inquiry skills as outlined in the Massachusetts Science Frameworks. In this class students will study the basic characteristics that all living organisms share by looking at cell structure, molecular biology, heredity and genetic variation, reproduction, photosynthesis, cellular respiration, evolution, and the interdependence of all life forms on earth. All coursework is designed to satisfy the State Frameworks for High School Biology

ADVANCED PLACEMENT BIOLOGY CRS 1560 GR 11 CR 5.0 Y

This laboratory science course follows the AP Course Audit syllabus for AP Biology. This class is offered in the spring semester and continues where Advanced Biology leaves off by continuing to cultivate the students understanding of biology through inquiry-based investigations as they explore two additional major topics: 1) Living systems store, retrieve, transmit and respond to information essential to life processes. 2) Biological systems interact, and these systems and their interactions possess complex properties. The inquiry based Investigations require students to ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress. Students are required to take the national Biology AP exam in May. *Prerequisite: Biology and Chemistry.*

CHEMISTRY H CRS 1541 GR 10-12 CR 5.0 Y

This class is a laboratory science course and begins with data analysis, uncertainty in measurement, and will continue with topics such as Matter and change, Problem Solving in Chemistry, Atomic Structure, Chemical Names and Formulas, Chemistry Quantities and Reactions, Stoichiometry, The Systems of Matter, Thermochemistry, Behavior of Gases, Bonding, Acids and Bases, Properties of Solutions, Chemical Periodicities, Water and Aqueous Systems. Students will make use of both experiment and theory to gain a better understanding of the nature of matter and of the experiment. This course places emphasis on the mathematics involved in solving problems as well as the critical thinking process. This course will offer students opportunities to learn, practice, and master skills relevant to their everyday world and to their future professional goals. *Prerequisite: Completion of Biology AND Integrated Math 2, OR Special Permission.*

CHEMISTRY CP CRS 1542 GR 10-12 CR 5.0 Y

This class is a laboratory science course and will begin with an introduction to data analysis, uncertainty in measurement, and will continue with topics such as Matter and change, Problem Solving in Chemistry, Atomic Structure, Chemical Names and Formulas, Chemistry Quantities and Reactions, Stoichiometry, The Systems of Matter, Thermochemistry, Behavior of Gases, Bonding, Acids and Bases, Properties of Solutions, Chemical Periodicities, Water and Aqueous Systems. This course will offer students opportunities to learn, practice, and master skills relevant to their everyday world and to their future professional goals. *Prerequisite: Completion of Biology AND Integrated 2, Integrated Math 2, OR Special Permission.*

ADVANCED PLACEMENT CHEMISTRY CRS 1543 GR 11-12 CR 5.0 Y

Advanced Placement Chemistry is the equivalent of a freshman college chemistry course; therefore, this class will be taught on the college level. This course is based on the curriculum of the College Board to prepare students for the Advanced Placement exam in May. Course content will require a great deal of extra time and effort on the part of students. This is a rigorous course that will prepare students for further study in science. Advanced topics include kinetics, equilibria, complex ions, oxidation – reactions, electrochemistry, acids and bases, buffers, thermodynamics, and organic chemistry. Students receive extra points in the weighted computation of their grade. Students are required to take the Advanced Placement Chemistry exam in May. *Prerequisite: Chemistry.*

PHYSICS CP CRS 1549 Gr: 11-12 CR 5.0 Y

Physics CP-A is a college preparatory level course in Introductory Physics. Students will satisfy their high school laboratory science requirement by conducting a hands-on studies of the physical laws of nature, with topics ranging from Motion, Force, Energy, Electricity and Magnetism, Waves, Sound and Light explored in extensive lab investigations. Problem solving and logical reasoning skills are the main focus of students' work in this course, with mathematical relationships of physical phenomenon being extensively studied. Selected topics of modern physics will be introduced as the course progresses. *Prerequisite: Successful completion of Chemistry and Integrated Math 2, or Special Permission.*

PHYSICS H**CRS 1551****GR 11-12****CR 5.0****Y**

This class is a laboratory science for students who are planning to continue their education at a four-year college or university. Students will conduct an intensive investigation of concepts outlined in the Massachusetts State Frameworks for Introductory Physics through both laboratory activities and project-based applications of scientific principles. These will include Forces and their Interactions, Newton's Laws, Motion and Momentum, Electromagnetism, Electrical Circuits, Energy Conservation and Energy Fields, Thermal Systems, Wave Mechanics, and Technological advancements related to the study of Physics. Physics Honors will progress at a level of rigor below that of Physics AP, covering slightly more material than Physics CP, but without as much depth of understanding AP Physics. Problem solving and logical reasoning skills are considered vital ingredients to students' success in the course and will be honed during the study of the course material. *Prerequisite: Completion of Integrated Math III and Chemistry.*

ADVANCED PLACEMENT PHYSICS**CRS 1553****GR 11-12****CR 5.0****Y**

This class is a laboratory science course and is designed to be the equivalent of a first-semester college course in Physics and follows the AP Course Audit syllabus for AP Physics I. An algebra-based approach will be used in an in-depth investigation of the following topics: Kinematics & Dynamics, Forces & Newton's Laws of Motion, Gravitation, Circular Motion, Simple Harmonic Motion, Impulse & Linear Momentum, Work & Energy, Conservation Laws of Momentum & Energy, Thermodynamic Laws, Rotational Motion, Electrostatics, Electromagnetism, DC Resistance Circuits, Mechanical Waves, and Sound. This foundation of Classical Physics lays the groundwork for the studies of advanced topics such as Light, Atomic and Quantum Particle Physics and the theories of General and Special Relativity. Students will be provided opportunities for individual as well as group learning within a series of scientific investigations. Students will engage in hands-on inquiry to help accomplish a large portion of the goals of this course and support learning of the foundational principles of the AP syllabus, and will be expected to utilize logic and reasoning skills in study of the course material. Students are required to take the AP Physics exam in May. *Prerequisites: Completion of Integrated Math III or Advanced Algebra, and Chemistry or with special permission.*

ANATOMY & PHYSIOLOGY H**CRS 1536****GR 11-12****CR 5.0****Y**

This elective laboratory science course is designed for the student who has an interest in general science, nursing, medicine, or physical therapy. Emphasis will be placed on the development of critical thinking and problem solving skills. Students will learn about the structure of the human body as well as the functions that those structures perform. The course contains a variety of student led presentations about illnesses relating to the various systems. The course culminates with the dissection of a fetal pig. The purpose of this is to experience the various systems first hand. *Prerequisite: Completion of Biology or Special Permission.*

MICROBIOLOGY AND HUMAN DISEASE CP**CRS 1582****GR 11-12****CR 5.0****Y**

This elective class is a laboratory science course. This course is designed for students who are considering a career in healthcare. It is an introduction to human disease and the microorganisms that are responsible for causing these diseases. Topics include identification of microorganisms, their structure and function, and associated diseases. Students will analyze how this information is used to diagnose and treat disease. This course will be a hands-on lab science. *Prerequisite: Completion of Biology.*

BIOETHICS**CRS 1584****GR 11-12****CR 5.0****Y**

This elective course explores various bioethical issues that exist in today's complex world and the possible ramifications that they may have. Topics include stem cell research, organ donation, in vitro fertilization, and genetically engineered food. Work would be focused around research, presentations, and discussion. *Prerequisite: Completion of Biology.*

HUMAN GENETICS**CRS 1585****GR 11-12****CR 5.0****Y**

This elective may interest students who are pursuing a career in a medical or biological field, or who simply have an interest in genetics. The course utilizes concepts learned in Biology and builds on them to investigate the role of chromosomes in our lives. Studies will begin with a brief review of Mendelian Genetics, DNA structure and replication. Exploration of more modern genetic topics will follow, such as epigenetics, cloning, stem cell

research, DNA fingerprinting, genetic basis for disease, genetics of behaviors, and genetic technologies.
Prerequisite: Biology.

ENVIRONMENTAL SCIENCE CP CRS 1580 Gr: 10-12 CR 5.0 Y

Environmental science explores the interrelatedness between the environment and life on earth. It is designed to promote the understanding of the power of diversity and the interrelationships among all living things to the environment. Students will understand that science is a unique and powerful way to learn about the natural world and relies upon curiosity, creativity, observation, analysis, and critical thinking. Through scientific inquiry, students will learn about the ecosystems around them, biodiversity and sustainability, climate change, human interactions that affect the environment as well as environmental laws and regulations. The learning strategies include, but are not limited to laboratory investigations, field study, online research, projects, reading assignments with class discussion, video and lecture. The goal of this class is to use the strategies and concepts learned to expand our knowledge and think critically about our role in the environment and strive to develop working solutions to some of the biggest environmental issues that the world faces today. *Prerequisite: Successful completion of biology.*

ASTRONOMY AND METEOROLOGY CP

CRS 1586 GR 10-12 CR 5.0 Y

This class will explore the history of astronomy, the origin of the universe, the sun and our solar system, stars and their life cycles and the Milky Way galaxy. Students will demonstrate the ability to describe the cycles in nature as described by meteorology and observe the behavior of celestial objects in the sky while conducting laboratory and field investigations. Students will explain solar activities based on the physical characteristics of the sun as a model star as well as identify the features of the Milky Way Galaxy by comparing them to features of other galaxies in the Universe. Students will summarize their knowledge to compare and contrast current and past models to determine the best explanation of cosmology using scientific evidence. *Prerequisite: Completion of Integrated Math II Honors or Integrated Math III CP, or special permission from instructor.*

HISTORY OF THE EARTH CP CRS 1587 GR 9-12 CR 5.0 Y

The History of the Earth studies topics such as the composition of the earth, earth as a dynamic system, the ocean's natural resources and energy as well as atmospheric forces. Our planet consists of many separate but interacting parts and a change to any one part can produce changes in all of the other parts. Developing a knowledge of how our earth's systems are interconnected and where we fit in is becoming increasingly important to our survival and wellbeing. Students will develop an understanding, awareness and appreciation for the planet we live on in order to make informed and educated decisions related to our environment and its sustainability in the future. The History of Earth teaches about the natural world through curiosity, creativity, observation, analysis and questioning and uses critical thinking in an attempt solve some of today's biggest issues around the world.

SENIOR STEM INTERNSHIP CP CRS 1573 GR 12 CR 5 Y

The STEM-Related Senior Internship will have the following three components based on the School-to-Career Opportunities Act that was signed into legislation by President Clinton in 1994: A School Based Component, Work Based Component and a Connecting Activities component.

The school based component - Students will be enrolled in a course that will expose them to the trends/demands in/of the global economy to help them give a presentation to the faculty/administration highlighting their experience in a STEM-Related industry/business at the end of the students' experience. Ideally, students would take STEM-Related courses while participating in this program so they can see how their academics can apply to the industry/business that they have chosen. During the work based component, students will visit the same local STEM business/industry once per week for **90-minutes** and will keep a log of one's experience. After each visit, the student will write a summary of what one learned that day/duties and responsibilities performed that day (hands-on, etc. per business/industry liability standards). In the connecting activities portion, the student will generate a portfolio that encompasses the school based and the work based experiences including assignments, a resume, a presentation (both written and oral), and a letter of interest as if they were applying for a position in that specific STEM career.

COMPUTER AIDED DESIGN (CAD) I

CRS 1578 GR: 10-12 CR 5.0 Y

This course will introduce students to basic mechanical drafting skills on the computer. Two-dimensional drafting and design will be accomplished through the use of modern Computer Aided Design software using Autodesk AutoCAD. Drafting standards and the reading of engineering drawings will be focused on in the first part of the course. Geometric dimensioning and tolerancing will be studied. Students will continuously practice producing simple single-part drawings and then work up to more complex multi-part assembly drawings. Drawing projects will be a major part of the class and will be supplemented with actual construction of parts of the projects. Topics specific to mechanical CAD, architectural CAD, and electrical CAD will also be discussed through this course. *Prerequisites: Principles of Engineering I & II or special permission and previous or concurrent study of Integrated Math II.*

COMPUTER AIDED DESIGN (CAD) II

CRS 1579 GR: 10-12 CR 5.0 Y

This course will introduce students to three dimensional design modeling on the computer. Three dimensional modeling using Autodesk Inventor will be the focus, and 3D printers will be used to test models for fit, operability, and design viability. Students will practice designing extruded parts, revolved parts, and patterned parts during the first part of the course with consideration to manufacturability, and will produce models of those parts using a 3D printer. During the second part of the course, students will model multi-part assemblies in the computer and examine them for fit and operability. The 3D printer will be used for prototyping of student produced assemblies of parts. Group design projects will comprise a major portion of this course. Examination of the use of finite element analysis to study stress and strain on loaded models will conclude the course. *Prerequisites: Completion of Principles of Engineering I & II, and completion of CAD I or special permission from instructor, and previous or concurrent study of Integrated Math II.*

SOCIAL STUDIES

HUMANITIES U.S. HISTORY I CP CRS 1226 GR 9 CR 5.0 Y

This required course presents the political, ethical, behavioral, and intellectual foundations of society through an integrated study of world literature and U.S. history, covering the years 1763 - 1877. Students will learn the relationship between ideas and events and relate them to the present within the context of reading, writing, listening, and speaking. This course is an integrated course taken in the same block with the Humanities I course listed under the English offerings.

HUMANITIES U.S. HISTORY I H CRS 1227 GR 9 CR 5.0 Y

This required course presents the political, ethical, behavioral, and intellectual foundations of society through an integrated study of world literature and U.S. history, covering the years 1763 - 1877. Students will learn the relationship between ideas and events and relate them to the present within the context of reading, writing, listening, and speaking. This course is an integrated course taken in the same block with the Humanities I course listed under the English offerings. This honors program is a more in depth analysis of topics presented and includes more readings, papers, and projects.

HUMANITIES U.S. HISTORY II CP CRS 1228 GR 10 CR 5.0 Y

This required course presents the political, ethical, behavioral, and intellectual foundations of society through an integrated study of world literature and U.S. history, covering the years 1877 to present. Students will learn the relationship between ideas and events and relate them to the present within the context of reading, writing, listening, and speaking. This course is an integrated course taken in the same block with the Humanities II course listed under the English offerings.

HUMANITIES U.S. HISTORY II H CRS 1229 GR 10 CR 5.0 Y

This required course presents the political, ethical, behavioral, and intellectual foundations of society through an integrated study of world literature and U.S. history, covering the years 1877 to present. Students will learn the relationship between ideas and events and relate them to the present within the context of reading, writing, listening, and speaking. This course is an integrated course taken in the same block with the Humanities II course listed under the English offerings. This honors program is a more in depth analysis of topics presented and

includes more readings, papers, and projects. Academic demands are intensified and challenging as topic analysis ventures beyond the scope of a survey course.

MODERN WORLD HISTORY CP CRS 1282 GR 11 CR 5.0 Y

This required course surveys world history from 1800 to present. Emphasis will be placed on the following topics: the growth of Nationalism, the Industrial Revolution and the social and political changes in Europe, Asia, Africa, and Latin America in the 19th and the 20th centuries; the Great Wars 1914-1945; the Cold War Era; and the contemporary world.

MODERN WORLD HISTORY H CRS 1280 GR 11 CR 5.0 Y

This required course surveys world history from 1800 to present. Emphasis will be placed on the following topics: the growth of Nationalism, the Industrial Revolution and the social and political changes in Europe, Asia, Africa, and Latin America in the 19th and the 20th centuries; the Great Wars 1914-1945; the Cold War Era; and the contemporary world. The honors program is a more in depth analysis of the topics presented. More reading, papers, and projects will be expected of students.

UNITED STATES GOVERNMENT CP

CRS 1244 GR 12 CR 5.0 Y

This required course will examine the Constitution and the structure and functions of the Executive, Legislative, and Judicial branches of the federal government with an emphasis placed on the rights and responsibilities of citizens.

UNITED STATES GOVERNMENT H CRS 1242 GR 12 CR 5.0 S

This required course will examine the Constitution and the structure and functions of the Executive, Legislative, and Judicial branches of the federal government with an emphasis placed on the rights and responsibilities of citizens, at an accelerated pace.

ADVANCED PLACEMENT UNITED STATES GOVERNMENT & POLITICS

CRS 1238 GR 12 CR 5.0 Y

This course will serve as an introduction and overview of U.S. national government and prepare students to take the Advanced Placement U.S. Government and Politics test in the spring. The course is designed to help students gain an analytical perspective toward the conduct of politics in the United States. Emphasis will be placed on six major topics: Constitutional Underpinnings, Political Beliefs/Behaviors, Political Parties/Interest Groups/Mass Media, Institutions of National Government, Public Policy, and Civil Rights/Civil Liberties. Students will analyze the theories and principles that are the basis of democracy and as well as the adaptation of those principles to create the American system of democracy. Students are required to take the AP exam.

DOLLARS AND SENSE CRS 1285 GR 11-12 CR 2.5 S

The goal of this social studies course is for the student to demonstrate an understanding of financial literacy, how a business operates and how the American economy functions. Students will examine their roles as consumers, investors, employees, and voting citizens. Topics of discussion will include the economy, the stock market, local businesses and the personal impact of political and social decisions on the economy and personal finance. *This course or its equivalent is required for graduation.*

CURRENT EVENTS AND ISSUES CRS 1250 GR 10-12 CR 2.5 S

This elective course will introduce students to a number of contemporary issues and current events that affect American society. Course topics may be selected with student input, and may include abortion, capital punishment, drugs in modern society, weapons of mass destruction, and immigration.

SOCIAL PSYCHOLOGY CRS 1260 GR 11-12 CR 2.5 S

This elective course focuses on the processes and problems of personality and interpersonal relationships. Psychological ideas and insights are applied to such major problems as crime, drug abuse, prejudice, mass persuasion, violence, war and interpersonal relationships. Students will also study how people learn, and ways of improving study and learning skills.

SOCIOLOGY AND CURRENT ISSUES H/INTRO TO PSYCHOLOGY COLLEGE CREDIT**CRS 1262, 1263 GR 11-12 CR 5.0 Y**

This elective course will focus on how the individual's behavior is influenced by the groups to which we belong and the American institutions that help shape our personalities and determine social events. Students will research a number of contemporary issues that affect American society. (This course will be taken in conjunction with the Mount Wachusett Community College Psychology course.)

SPIES, LIES AND CONSPIRACIES CRS 1264 GR 10-12 CR 2.5 S

This elective course allows students to examine a number of important domestic and foreign events that have marked American history. The course will focus on the history of espionage, from the beginnings to the Cold War to the recent controversy over the NSA's spying, government explanation of issues that many people question such as Area 51 and conspiracy theories, especially with assassinations.

COMPETITION, CORRUPTION AND CURRENCY; THE HISTORY OF SPORTS**CRS 1266 GR 10-12 CR 2.5 S**

This elective course focuses on the study of sports through history. Potential topics may include Olympics, steroids and scandals, international sports, economics, media and recreational sports.

INFAMOUS CRIMES, CRIMINALS, & TRIALS**CRS1223 GR 10-12 CR 2.5 S**

This course will examine and analyze the lives, times, and deeds of famous criminals in different eras in American history including outlaws from the American "Old West" such as Billy The Kid, Butch Cassidy and The Sundance Kid, the "Hole In The wall Gang", and Jesse and Frank James among others. Other eras and genres will include criminals in the early part of the 1900's such as Bonny Parker and Clyde Barrow and others, the rise of the "Mafia" and crime figures such as Al Capone and others, famous cult criminals such as Charles Manson and the Manson Family and others, and culminate with a look at recent white collar crime figures such as Bernie Madoff and others. Famous "Lawmen" from each era such as Wyatt Earp, Elliott Ness, and J. Edgar Hoover, among others will also be studied. An integral part of the examination of these criminals and their trials will be an analysis of the social forces that led to the existence of these criminals and their crimes and the lawmen who brought them to justice, and a critical look at the development of the American legal system as it dealt with these individuals in a changing social and technological environment.

INTRO. TO LAW AND CRIMINAL JUSTICE**CRS 1272 GR 10-12 CR 2.5 S**

In this elective course students survey the criminal justice system in the United States including its main components: law enforcement, courts, and corrections. Special emphasis is placed on the sequence of events and decision points within the system as well as the historical, developmental, and societal influences. The functions of federal, state, country, and local agencies are examined.

HISTORY THROUGH FILM CRS 1291 GR 10-12 CR 2.5 S

This is a Social Studies elective that uses movies as a window to study society and how it has changed over time. Films, the era in which they were made, as well as their historical accuracy will be evaluated throughout the course. Although films are a major source material of the course, there will be a substantial amount of reading, discussion, and project work throughout the course.

THE EVOLUTION OF AMERICAN WOMEN**CRS 1248 GR 11-12 CR 2.5 S**

This elective course will focus on the impact of women on American history with some attention paid to the effect of current international issues and women's rights. Current issues that women face will be addressed including health, political and religious issues. The course will culminate with an analysis of how Hollywood, society, and media portray femininity and beauty.

HISTORY OF ROCK AND ROLL CRS 1872 GR 10-12 CR 2.5 S

This course will take a look at the progression and development of music from Delta and Chicago Blues to the Rock 'n Roll era. This will include the recording process, instruments used during the rock and roll era, and the

ADVANCED PLACEMENT SPANISH CRS 1365 GR 11-12 CR 5.0 Y
(VIRTUAL)

An in depth review and reinforcement of grammar, verbs and vocabulary through literature, this course is the equivalent of a freshman year college course. It will follow the prescribed AP curriculum. Students will be prepared and expected to take the AP examination in Language. Class will be conducted in Spanish.

SPECIAL PROGRAMS

RESEARCH SKILLS CRS 2025 GR 9 – 12 CR 2.5 S

Introduction to library print and electronic resources to support student research, information tasks, and proper citation. Students will become familiar with the configuration and use of the library catalog in order to locate materials for research and recreational reading; online databases and websites to access information for research purposes; and methods to evaluate information. Students will be expected to complete several assignments throughout the semester, including research projects, using the information and skills covered in class.

LIBRARY ASSISTANT CRS 2017.2018 GR 11-12 CR 2.5/5.0 S/Y

This course introduces students to the subject of library and information science and organization. Under the direction and supervision of the high school librarian, students taking this course assist with collection maintenance and special projects to support library activities. Grading is done on a pass/fail basis. Enrollment is limited. Students must obtain permission from the high school librarian in order to enroll in this course.

SENIOR INTERNSHIP CRS 2004 GR 12 CR MAY VARY

This class is for students who would like to explore future career goals to help in their choice of future education. This class incorporates intensive research with an off campus internship which culminates in a presentation at the end of the course to a panel of judges from the school community. Selection for this class is based on criteria established by the Senior Internship committee, plus a proposal submitted by the students. Students receive credit for this course.

WORK STUDY CRS 2019 GR 12 CR 0 S

This course provides an opportunity for seniors to engage in exploring one or more career opportunities. Seniors must have met graduation requirements and have received administrator approval. This is a non-credit bearing course; rather students get paid. This is a supervised program between ASRHS and the employer.

INDEPENDENT ACADEMIC STUDY CRS 1056, 1058, 1059 GR 10-12 CR2.5/5.0 S/Y

This course is for students who have an interest in advanced study in a specific subject area. Students wishing to enroll in this class must submit a proposal which includes the learning objectives, curriculum components, method of evaluation, and identify the cooperating teacher. A committee must approve the proposal for the student to enroll in the course. If warranted, Honors level credit will be awarded with an alternate course number. This course may be taken for a year or semester as determined by the committee.

SENIOR SEMINAR CRS 2024 GR 12 CR 5.0 Y

This course provides senior students with two major challenging opportunities. The first is to explore and prepare for the transition from high school to their post-secondary plans with a faculty member on hand to use as a sounding board, guide, and mentor. The second is to research and apply the knowledge and skills gained throughout their educational career thus far to answer an essential question that will extend and challenge their learning in a topic of interest to them. This may include but is not limited to: a formal paper on a topic of their choosing, an action plan based off of extensive research and interest, an extended community service project proposal, or an idea or concept improvement plan. The research will be presented in both a formal written piece as well as in a formal presentation before a selected panel.

EMERGENCY MEDICAL TECHNICIAN (TBD based on scheduling)

CRS 2040 GR 12 CR5 Y

As part of a special waiver to Massachusetts' E.M.T. certification guidelines, ASRHS seniors may participate with community adults in an Ayer Ambulance Service sponsored E.M.T. Basic Training course. Course participants spend approximately 150 hours on a combination of classroom lectures, practical skill sessions, and riding as assistants on ambulance calls. Topics such as basic human anatomy, general pharmacology, respiratory and cardiovascular emergencies, disease-related medical conditions, environmental and behavioral emergencies, musculoskeletal care, soft tissue injuries, trauma and infant and child trauma are covered in the class. Upon successful completion of the course, students take the state written and practical exams for full E.M.T. – B certification. The expenses that students are to be responsible for are as follows: National Certification, \$80; Massachusetts Certification, \$150; and State/MWCC Practical Exam Fee, \$130. This course is limited to 20 – 25 seniors only.

ENGLISH LANGUAGE DEVELOPMENT CRS 1048 GR 9-12 CR 5.0 Y

This course is designed for English Language Learners and focuses on the development of oral and written communication skills using a developmental approach to English language acquisition. Emphasis is placed on speaking and pronunciation, listening and differentiating common and uncommon sounds as these affect meaning, reading for understanding, and writing with an academic purpose. Grammar is introduced as students gain fluency and confidence in academic English. Materials used for instructional purposes focus on the history, traditions, cultural perspectives and values common to American culture without diminishing these aspects of any other culture. Instruction utilizes multiple strategies and takes prior knowledge and students' own traditions into account in differentiating instruction. May be repeated as required for credit.

ACADEMIC DEVELOPMENT CRS 1030, 1032 GR 9-12 CR 2.5 S

Students attend Academic Development for support in English, Mathematics, Social Studies, and/or Science. Students are instructed in learning strategies, and they receive academic instruction in areas identified by their special education and general education teachers, who collaborate to meet students' needs in the classroom. (Team recommendation)

READING DEVELOPMENT CRS 1060/1070 GR 9-12 CR MAY VARY

This course is designed to help students develop fundamental reading skills crucial for success in their academic classes.

LEARNING CENTER PROGRAM

The Life Skills program is designed to provide academic and vocational training for students in grades 9-12 who are at academic levels substantially below grade level. The primary goal of Life Skills is to provide opportunities to gain academic, independent living, prevocational, and social interaction/communication skills within and outside of the school setting. Students in the Life Skills Program learn academic and functional skills through a combination of classroom instruction, school-based work, and community experience. Students complete modified assignments in inclusive elective environments according to their IEP's (Team Recommendation)

LEARNING CENTER HEALTH CRS 1022 GR 9-10 CR 2.5 S

This class will include discussions on hygiene, good nutrition, and ways to stay healthy.

LEARNING CENTER ENGLISH CRS 1023 GR 9-12 CR 5.0 Y

Students will be reading material based on their reading level. They will have to answer questions based on the reading. They will also be required to complete writing assignments based on a reading or writing prompt at their current level. Reading material could include; short stories, novels, poems, and graphic novels.

LEARNING CENTER SCIENCE **CRS 1025** **GR 9-12** **CR 5.0** **Y**
Students will be exposed to various subjects in the Life Science field (Biology). They will learn about plants (parts, reproduction, importance of plants, and cycles), they will also learn about the human body systems (circulatory, respiratory, nervous, digestive, and skeletal).

LEARNING CENTER MATH **CRS 1027** **GR 9-12** **CR 5.0** **Y**
This course focuses on the basic operations in mathematics and everyday applications of these skills including counting money, time concepts, and measurement, budget and calculator skills. These skills will be taught in the classroom and then utilized in the school/community environments to provide generalized learning.

LEARNING CENTER U.S. HISTORY I **CRS 1020** **GR 9-10** **CR 5.0** **Y**
Students will be instructed in the major themes in U.S. History from colonization of the U.S. to the end of the Civil War. Students will be instructed on how government is formed, citizenship, and basic economics.

LEARNING CENTER U.S. HISTORY II **CRS 1021** **GR 10-11** **CR 5.0** **Y**
Students will be instructed in the major themes in U.S. History from the end of the Civil War to the present. Students will be instructed on how government is formed, citizenship, and basic economics.

COMMUNITY AWARENESS **CRS 1080** **GR 9-12** **CR 2.5** **S**
Students will access the community to work on goals to becoming independent. They will learn to: shop in a supermarket, compare prices, access public transportations, do laundry, what to do in an emergency, and how to move about safely in the community.

LEARNING CENTER VOCATIONAL SKILL BUILDING **CRS 1081** **GR 9-12** **CR 5.0** **Y**
Students will work on practical work skills that will help them gain some independence when they leave high school. They will fill out applications and gain knowledge of various jobs within the school community such as copying and collating, shredding, gardening, and food service.

SCHOOL COUNSELING PROGRAM

MISSION

School Counseling and Guidance Services are available and essential for all students. The mission of the Ayer Shirley Regional High School Counseling department is to empower all students to reach their full potential in academic, social/emotional, and career/technical development while instilling the values of high expectations, life-long learning, appreciation of diversity, and responsible citizenship.

INTRODUCTION

School Counseling (Guidance) is a part of Ayer Shirley Regional High School's total educational program. It provides assistance to the individual student as well as to groups. By developing an understanding of his/her characteristics and potential, a student gains the knowledge necessary for personal fulfillment and social responsibility.

The school counseling office atmosphere is personal and confidential. Counselors are available by appointment, before and after school, and during class time in cases of emergency. Counselors take a continued interest in each student as a person and assist the student to increase self-confidence and feelings of personal worth. Periodically, a counselor will be available for after school and evening appointments.

Services are delivered in individual, small, and large group settings and are designed to meet the school counseling standards developed by the Massachusetts School Counselor's Association, supported by the Massachusetts Department of Elementary and Secondary Education and aligned with the Massachusetts Frameworks. The three domains are Academic/ Technical, Personal/Social, and Workplace Readiness Development. Within each of

these domains, career development benchmarks and competencies are identified and can be incorporated into other curricular domains.

Grade appropriate activities will be introduced in collaboration with teachers integrating school counseling objectives across the curriculum.

COURSE CHANGES

As a general rule, students will not be permitted to change courses without good cause. **However, if it is determined that a student is misplaced, a change may be made to a full year course within the first week of school, and a change in a semester course within the first week of the semester.** Changes typically require consultation with the student, the teacher, and a parent or guardian.

SCHEDULING NOTICE

A course may be cancelled because of under-enrollment or lack of available teaching personnel for a particular course. There are two semesters annually; core academic courses meet year long, while electives are semester long courses.

COLLEGE & POST SECONDARY PLANNING

The college search and application process involve long term planning. Beginning in freshman year with the creation of the 4-year plan counselors and students work collaboratively in selecting an appropriate postsecondary path. Counselors support, guide, and assist students in the following areas:

- Course selection
- College search process
- College majors and related careers
- PSAT/SAT/SAT Subject/ACT testing
- College application process
- Essay/Resume writing
- Letters of Recommendations
- College visits and interviews
- Financial Aid/Scholarships
- Career Interest/Development
- Social/Emotional Development

The School Counseling office is using Naviance, a college and career exploration and planning tool. The comprehensive college and career readiness resources assist students and families in bridging academic preparation and future goals. It also provides schools and districts with the tools to help students and families gather information they need to help prepare for life after high school. Naviance has tools that students will use to create a plan for their future as they discover their individual strengths and learning styles while exploring college and career options based on their results. Naviance will be used in all grades in order to communicate activities that need to be completed by students and to send information on college and career readiness to parents.

Students are encouraged to utilize the school counselors and the resources available in the school counseling office to assist them in this process. The School Counseling Suite has computers available to the students to aid them in obtaining information about colleges and careers.

STANDARDIZED TESTING

The following is a summary of the testing programs made available to the students through the School Counseling office. Most of this testing is voluntary; however, students who plan to attend college after high school should take full advantage of all the testing opportunities available. These tests are usually a requirement for college admissions, so students must do their research to see what is required by each school organization.

Information about testing will be available on the ASRHS School Counseling website; however, it is the responsibility of the student to register for these exams, watch their deadlines, and to research which colleges require additional testing (such as the SAT Subject Test). The standardized tests recommended by the school counseling department are:

- **MCAS** – Competency Determination (CD) is a requisite for high school graduation under Massachusetts’ state law, which requires students to demonstrate mastery of a common core of skills, competencies, and knowledge in the areas of Mathematics, English Language Arts, and Biology or Science & Technology/Engineering as measured by the MCAS exam. Competency Determination is achieved by students earning a score of “proficient” on the Mathematics and English MCAS exams, and a score of “passing” on the Biology or Science & Technology/Engineering exam. Students who pass MCAS but do not reach proficiency will be placed on an Educational Proficiency Plan. This plan allow students to reach proficiency and complete all the ASRHS graduation requirements simultaneously.
- **Preliminary Scholastic Aptitude Test and National Merit Scholarship Qualifying Test (PSAT/NMSQT)** – this two hour version of the SAT is valuable for practice. It is highly recommended that students take this test in October of their sophomore AND junior year. For juniors, the PSAT is a National Merit Scholarship Qualifying Test utilized by the National Merit scholarship program sponsors to identify students who may qualify for scholarship consideration. A detailed individual report is provided to each participant highlighting their weaknesses and strengths, and also offers them information about how to begin their college admissions journey. This test is offered only once per year. Registration information is available in the school counseling office at the beginning of each school year.
- **Standardized Aptitude Test (SAT)** – The SAT is a globally recognized college admission test that shows colleges what you know and how well you can apply that knowledge. It tests your knowledge of reading, writing and math – subjects that are taught every day in high school classrooms. Most students take the SAT during their junior or senior year of high school, and almost all colleges and universities use the SAT to make admission decisions. Practice test, tips, as well as registration information, are available at www.collegeboard.org. Students should create a College Board account by visiting collegeboard.org.
- **SAT Subject Test** – Subject tests are hour-long, content-based tests that allow you to showcase achievement in specific subject areas where you excel. These are the only national admission tests where you choose the tests that best showcase your achievements and interests. SAT Subject Tests allow you to differentiate yourself in the college admission process or send a strong message regarding your readiness to study specific majors or programs in college. There are 20 SAT Subject Tests in five general subject areas: English, history, languages, mathematics and science. Some of the more competitive colleges REQUIRE 2-3 SAT Subject Tests; it is the responsibility of the student to see if it is necessary for the colleges they are applying to.
- **ACT** – The ACT is also a nationally accepted college entrance exam and is looked at interchangeably with the SAT and SAT Subject Tests. It assesses a high school student’s general education development and their ability to complete college-level work. The multiple choice test covers four skill areas: English, mathematics, reading, and science. The writing test, which is optional, measures skills in planning and writing a short essay. In order for the ACT to be considered in place of the SAT for college admissions, The student MUST take the optional writing section. Visit www.actstudent.org for additional information, practice tests, and registration information.
- **Advanced Placement Exams** – AP exams are offered in May to all students who have participated in an AP course throughout the school year, at the high school. Through AP’s college-level courses and exams, you can earn college credit and stand out in the admission process. See your counselor for more information.

CONFERENCES WITH COLLEGE REPRESENTATIVES

In the fall of each school year, admissions representatives of schools and colleges visit the high school to meet with seniors and juniors who may be interested in receiving information about that program. It is to the student's advantage to attend these meetings, specifically for the schools that are their top choices. When representatives of schools or colleges visit the high school, notification will be posted in the School Counseling Suite, announced, and placed on television monitors.

NCAA – NATIONAL COLLEGIATE ATHLETIC ASSOCIATION

Student-athletes must register with the NCAA Eligibility Center to be eligible to play NCAA Division I or II sports in college. Athletes playing in Division III do not have to register. Students should work closely with their coaches and school counselor to determine if they should complete this process.

What is the NCAA Eligibility Center?

The NCAA Eligibility Center certifies whether prospective college athletes are eligible to play sports at NCAA Division I or II institutions. It does this by reviewing the student-athlete's academic record, SAT or ACT scores, and amateur status to ensure conformity with NCAA rules.

What are NCAA Divisions I, II, and III?

The NCAA is the governing body of many intercollegiate sports. Each college regulated by the NCAA has established rules on eligibility, recruiting and financial aid, and falls into one of the three membership divisions (Divisions I, II, and III). Divisions are based on college size and the scope of their athletic programs and scholarships.

When should students register?

The NCAA recommends that student-athletes register at the beginning of their junior year in high school, but many students register after their junior year. There is no registration deadline; but students must be cleared by the Eligibility Center before they receive athletic scholarships or compete at a Division I or II institution.

How do students register?

Students must register online at the NCAA Eligibility Center. The link for this site is http://web1.ncaa.org/ECWR2/NCAA_EMS/NCAA.jsp. Students will have to enter personal information, answer questions about their course work and sports participation outside of high school and pay a registration fee.

Can students have the registration fee waived?

Students who have received a waiver for the SAT or ACT are eligible for a waiver of the registration fee. The student's counselor must submit confirmation of the student's test fee waiver. Please see your counselor for more information.

FINANCIAL AID AND SCHOLARSHIPS

In view of the ever-increasing costs of college, families need to take advantage of all resources available to finance higher education for their children. The school counseling department partners with MEFA (Massachusetts Educational Financing Authority) to bring parents and students the most up to date information and assistance

regarding financial aid for college. Parents are able to access this information from the school counseling website, Naviance or by visiting the following:

- www.naviance.com (Naviance)
- www.mefa.org (Massachusetts Educational Financing Authority)
- www.fafsa.ed.gov (Free Application for Federal Student Aid)
- www.studentaid.gov (Federal Student Aid)
- www.collegeboard.org (CollegeBoard)

Scholarships from other sources – Throughout the year, the school counseling department receives notifications from local, state, and national organizations offering scholarships to our students. These scholarships are primarily from business, industrial, professional, and fraternal organizations. Criteria for these awards are usually based on academic achievement, community service, test scores, essays, and leadership qualities. These scholarships are publicized and updated on Naviance. It is the responsibility of the student to regularly check for updates and deadlines, and to pursue these opportunities. School counselors are ready to offer any assistance with this process in regards to information, recommendation letters, and transcripts.

In addition, it is important for families to inquire about scholarships offered by their own employers, fraternal and veteran organizations, and church groups.

Local Scholarships for ASRHS students – In addition to the aforementioned scholarships, numerous local scholarships are also available specifically for Ayer and Shirley students at the high school. Information regarding these scholarships and individual applications are discussed at a senior class meeting and posted on Naviance. Selection for all of these scholarships is based upon application criteria set by the donors, and upon being awarded by the ASRHS Scholarship Committee, will be announced at the annual Scholarship and Awards Ceremony.

MASSACHUSETTS STATE COLLEGES AND UNIVERSITY

MINIMUM ADMISSIONS STANDARDS

The Board of Higher Education requires a minimum of college preparatory coursework across the disciplines in order to be considered for admission to any of the state colleges or universities.

The chart below outlines the admission standards with respect to GPA and standardized test scores:

- Minimum Weighted, recalculated high school G.P.A. 3.0
- State College SAT Scores (math and critical reading (CR) combined only) 920-1120
- UMass SAT Scores (math and CR combined only) 950-1150
- A sliding scale will be used for students with a G.P.A. between 2.0-2.99

Weighted High School GPA	UMass Campuses Admission Combined CR and Math SAT Scores Must Equal or Exceed	State University Admission Combined CR and Math SAT Scores Must Equal or Exceed
	<i>ACT equivalent in parentheses</i>	<i>ACT equivalent in parentheses</i>
2.51-2.99	1030 (20)	990 (19)
2.41-2.50	1070 (21)	1030 (20)
2.31-2.40	1110 (22)	1070 (21)
2.21-2.30	1140 (23)	1110 (22)
2.11-2.20	1180 (24)	1140 (23)
2.00-2.10	1220 (25)	1180 (24)

No student with a GPA below 2.00 may be admitted to a state university campus. Special admissions criteria do exist; go to the Massachusetts Board of Higher Education (www.mass.edu) or the Massachusetts Department of Elementary and Secondary Education (www.doe.mass.edu) for more information.

TIMELINE FOR THE COLLEGE APPLICATION PROCESS

Planning for college involves a series of activities that begins well in advance of high school graduation. Students who plan ahead and start the process early will have the greatest variety of opportunities, for both college admission and financial aid. The following is a suggested timeline of tasks for students as they work towards college admissions.

FRESHMAN/SOPHOMORE YEARS

- Enroll in a strong college-preparatory curriculum
- Achieve academically
- Become familiar with counselors and services of Ayer Shirley Regional High School
- Become involved in sports and/or activities
- Complete Naviance Activities
 - Strength Explorer Assessment
 - Game Plan Survey
 - Learning Style Inventory
 - College search
 - Do What You Are
- Add Career Clusters to “Favorites” List in Naviance, Begin building Resume,
- October (Grade 10): May take the PSAT/NMSQT if desired
- May (Grade10): take SAT Subject tests; Biology Test, for example, if appropriate

SPRING/SUMMER BEFORE JUNIOR YEAR

- Complete at least one college search activity to generate a list of 10-20 possible schools
- Identify general criteria for admission to these colleges or a program of your choice and to ensure that you are taking the right high school courses to meet the criteria (i.e. Taking Anatomy & Physiology as a senior if you want to major in Nursing)
- Begin to develop college time line (include dates for tests (PSAT/SAT/ACT), application deadlines, financial aid application deadlines, etc.)
- Talk with your parents about your college plans and encourage them to visit campuses with you

FALL OF JUNIOR YEAR

- Register to take the PSAT/NMSQT to prepare for the SAT and to qualify for National Merit Scholarships
- Plan to attend college fairs and college representative visits at your school and in the community
- Continue researching the colleges on your list with your counselor and parents

WINTER OF JUNIOR YEAR

- Register for the SAT Reasoning Test with Writing or the ACT with Writing. If you are planning to apply early to college, you should have 1-2 college entrance exams completed by June
- Register for the SAT Subject Tests if your college requires it, or if you show a proficiency in a certain subject area
- Begin narrowing down your college list to 6-10 colleges and In Naviance:
 - Complete College Match
 - Add college to “Colleges I’m Thinking About”
 - Begin Scholarship search
 - MI Advantage
 - Complete Game Plan
 - Update Resume
- **VISIT COLLEGES!!** Tour campuses and make appointments with admissions counselors

- Attend Financial Aid seminars in preparation for applying for aid the following year
- Attend the NEACAC Fair in May, when available
- Seek out **summer internship or volunteer opportunities** to strengthen your resume
- Choose senior year courses that will show your strengths and will allow you to shine

SUMMER BEFORE SENIOR YEAR

- Sign up for an account on www.commonapplication.org; you can apply to more than 500 colleges with this ONE application with the click of a button
- Research your college essay topics and begin putting together your essay drafts
- Continue with Summer Internships and Volunteer Opportunities

SENIOR YEAR

Naviance Activities to be completed throughout the year:

- Add Colleges to “Colleges I’m Applying to” list
- Request transcripts
- Request teacher/Counselor Recommendations
- Complete Game Plan Survey
- Update Resume
- Apply for Scholarships
- Complete Graduation Survey in May

SEPTEMBER

- Finalize your list of colleges that you will be applying to
- Sign up to take the SAT with Writing or ACT with Writing in October, November, or December
- Be aware of EARLY ACTION/DECISION deadlines
- Request at least 2 teacher recommendations for your college applications (with the help of your counselor)
- Continue drafting your college essays and have teachers/parents/counselors proofread everything for you.

OCTOBER/NOVEMBER

- Research the CSS PROFILE form and if your college requires it, fill it out now (most top tier schools will require this additional financial form)
- Finalize your college essays
- Ensure your recommendations are in progress
- Watch your EARLY ACTION/EARLY DECISION deadlines as most begin November 1st
- Meet again with your counselor to review your list of colleges and to ensure you haven’t missed any steps
- Attend a Financial Aid Workshop at ASRHS
- Obtain Transcript Request Forms in the school counseling office or on the ASRHS school counseling website to ensure all your records are forwarded to your college choices

DECEMBER

- Begin gathering your financial information to apply for the FAFSA on January 1st
- Obtain and complete any additional financial aid forms required by your colleges
- Begin applying for scholarships that are posted in the School Counseling Suite and on the school website
- Attempt to submit your top three choice school applications before Christmas break. Early action/decision applications must be submitted prior to this

JANUARY

- Complete and submit your FAFSA as soon after January 1st as possible
- Attend FAFSA Day – www.fafsaday.org
- Research scholarship opportunities
- Complete and submit your remaining college applications

FEBRUARY/MARCH

- Respond to any financial aid letters and correspondence from colleges
- Mid-year grades will be automatically sent unless you request us not to
- Apply for local and graduation scholarships

APRIL

- Most selective colleges start to announce their decisions in April. Decide which one is best for you
- Inform your counselor of college acceptance, rejections, or wait list status. Bring in copies of letters to your counselor
- Compare award letters and narrow to final decision
- Give thank you notes to teachers who wrote you letters of recommendation
- Also send thank you letters to donors if you receive scholarship awards

MAY/JUNE

- Send a deposit to your chosen college by May 1st
- Inform the School Counseling Office of your final choice
- The common date used by colleges to commit (deposit) to a college is on or before May 1st
- Request that final grades be sent to the college/university you plan to attend
- Celebrate your graduation from Ayer Shirley Regional High School

STUDENTS CONSIDERING ALTERNATIVES TO COLLEGE

Students who are not planning to attend college after high school should consider following the above guidelines to maximize their potential opportunities. In many cases, students decide late in their high school career that they do want to attend a college. Additionally, many vocational/technical post-secondary schools, career schools, apprenticeships and employers will consider the applicant's high school record prior to deciding to admit or employ a person.

This Program of Studies and any updates can be accessed by visiting <https://www.asrsd.org/schools/high-school/our-school/programs-study>.

