

Ayer Shirley Regional High School



Program of Studies 2017 – 2018

141 Washington Street
Ayer, MA 01432
Phone: 978-772-8600
Fax: 978-772-8615
www.asrsd.org

TABLE OF CONTENTS

PRINCIPAL'S LETTER	3
DISTRICT VISION STATEMENT	4
STATEMENT OF ACCREDITATION.....	4
DISTRICT CORE BELIEFS	4
PROMOTION AND GRADUATION CRITERIA.....	5
PARTNERSHIP OPTIONS FOR COURSE CREDIT.....	7
COURSE LEVELS.....	7
RECOMMENDED PATHWAYS OF STUDY	8
MATHEMATICS SEQUENCE OF STUDY	10
AYER SHIRLEY REGIONAL HIGH SCHOOL.....	10
COURSE DESCRIPTIONS	10
COMPUTER EDUCATION.....	10
ENGLISH.....	12
FINE/VISUAL ARTS	15
HEALTH/PHYSICAL EDUCATION.....	16
MATHEMATICS.....	17
MUSIC	20
SCIENCE.....	21
SOCIAL STUDIES.....	25
WORLD LANGUAGE.....	28
SPECIAL PROGRAMS.....	30
LEARNING CENTER PROGRAM	32
SCHOOL COUNSELING PROGRAM.....	32
COLLEGE & POST SECONDARY PLANNING.....	33

PRINCIPAL'S LETTER

Dear Parents/Guardians and Students:

Welcome to Ayer Shirley Regional High School. We look forward to providing you with a first-class education in a new state of the art building. 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.

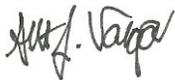
We are pleased to offer a variety of courses and identified pathways which all lead to the successful completion of high school:

- Advanced Placement (AP) courses: Biology, Chemistry, Physics, US. Government and Politics, English Literature and Composition, English Language and Composition, Calculus AB, Statistics, and Computer Science Principles.
- A one to one Google Chrome environment.
- Courses in civics and a required robust community service program that reinforces the importance of a school and community relationship where the students are proud and productive members.
- Civics courses including: U.S. History I, U.S. History II, and U.S. Government and Politics
- Mass Core Four Year Pathway
- Honors Pathway
- Early College/AP Pathway
- STEM Pathway – concentration in science, technology, engineering, and mathematics courses
- Dual enrollment with Mount Wachusett Community College and Fitchburg State University (high school and college credit will be earned)
- International student partnerships
- Internships to explore career pathways
- Edgenuity online course offerings

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, robotics, music offerings, glee club, dramatic arts, 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.

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 MISSION 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 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 graduation. 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.

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 MassCore requirements.

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 <i>5 additional "core" courses</i>
Physical Education/Health (M.G.L. c. 71, s. 3)	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.*

****Students prior to the 2017-2018 school year may substitute participation in a varsity or junior varsity sport, or other professionally managed athletic activity in order to satisfy this requirement. **Approval must be granted by ASRHS administration.***

PARTNERSHIP OPTIONS FOR COURSE CREDIT

EDGENUITY (formerly *Virtual High School, VHS*)

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. The 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. Students choosing not to take an AP exam will only earn "honors" credit 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, and STEM. Within each recommended pathways 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 pathways 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

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 I CP or Integrated Math III CP	Integrated Math III CP or Advanced Mathematical Applications	Advanced Mathematical Applications, Advanced Algebra or AP Statistics
Biology CP	Chemistry CP	Physics CP	Science Elective
World Language	World Language	Elective	Elective or Senior Seminar

HONORS

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	U.S. Government H
Integrated Math I/II H or Integrated Math II H	Integrated Math II/III H or Integrated Math III H	Pre-calculus H or AP Statistics	Calculus H, AP Calculus or AP Statistics
Biology H	Chemistry H	AP Chemistry or Physics H, AP	Science Elective
World Language	World Language	AP Computer Science Principles	Elective or Senior Seminar

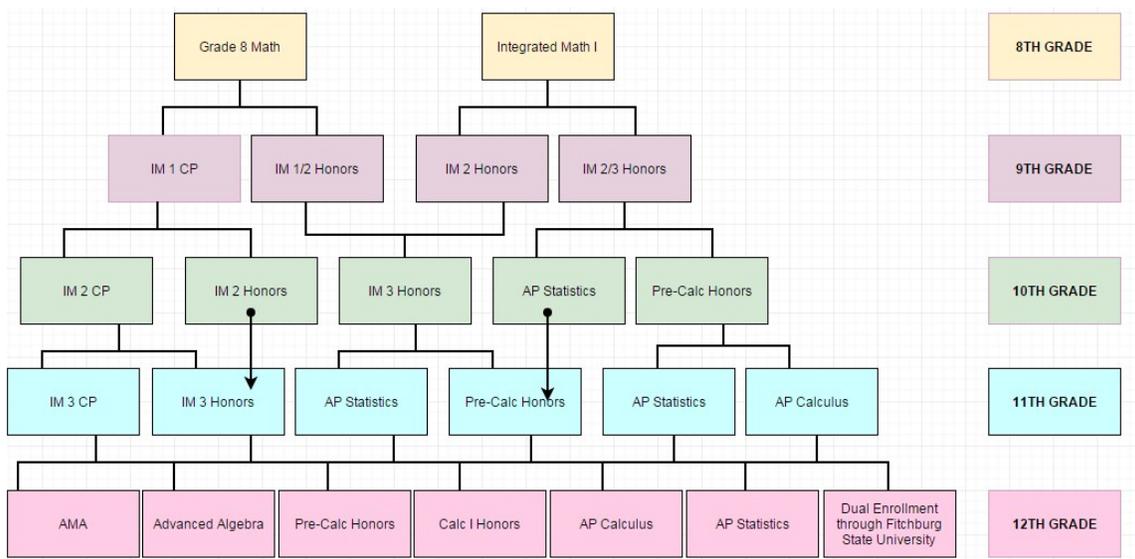
AP/EARLY COLLEGE

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

STEM

9th GRADE	10th GRADE	11th GRADE	12th GRADE
Humanities English I CP or H	Humanities English II CP or H	American Literature CP or H or AP Language and Composition	World Literature CP or H and/or AP Literature and Composition
Humanities U.S. History I CP or H	Humanities U.S. History II CP or H	Modern World History CP or H	U.S. Government CP or H or AP Government
Integrated Math I CP, Integrated Math I/II H or Integrated Math II H	Integrated Math II CP, Integrated Math II H, integrated Math II/III H or Integrated Math III H	Integrated Math III CP, Integrated Math III H, Pre-calculus H or AP Statistics	Advanced Algebra, Calculus H or AP Calculus or AP Statistics
Biology CP/H and Principles of Engineering I Computer Programming	Principles of Engineering I or Principles of Engineering II, Advanced Programming	Chemistry CP, H and CAD I or Principles of Engineering II	Physics CP or AP Physics and/or AP Biology or AP Chemistry, CAD I CP or CAD II CP
World Language	World Language	AP Computer Science Principles or Science Electives	Science Electives

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 CP

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 CP

CRS 1652 GR 9-12 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.

SOCIAL MEDIA CP**CRS 1635****GR 9-12****CR 2.5****S**

Students will explore how social media has changed communication, how it can affect one's future, and how to use social media to its fullest advantage – personally and professionally. Additionally, students will learn the history of social media, as well as, legal and ethical responsibilities of developing and maintaining an online presence.

COMPUTER PROGRAMMING CP**CRS 1655****GR 10-12****CR 2.5****S**

This course introduces students to how their computer “thinks,” as well as the art of programming. They will be introduced to different computer languages, i.e., Scratch, C, PHP, HTML, and CSS, and will gain hands on experience with programming and coding through several in-class projects.

ADVANCED PROGRAMMING H**CRS 1656****GR 11****CR 5.0****Y**

In this class, students will be programming in Java, an object-oriented programming language. The course content will be similar to that offered in an introductory computer science class at most universities. Students will be learning all levels of the Java language including basic syntax, declaration of variables, if-else statements, for, while, and do-while loops, library classes, and GUI (graphical user interface) tools. This course will be especially helpful to students contemplating careers in computer science, business, and statistics, insurance and engineering. *(Prerequisite: a grade of “C” or better in Computer Languages, a grade of “C” or better in Integrated Math I, and/or the permission of the department).*

COMPUTER REPAIR/ TROUBLESHOOTING CP**CRS 1670****GR 10-12****CR 2.5****S**

This course offers a hands-on experience that provides the student with a thorough knowledge of the PC computer and how it functions. Topics will include computer building, preventative maintenance, upgrades, hardware installation, and trouble shooting and problem isolation techniques.

TELEVISION PRODUCTION CP**CRS 1636****GR 9-12****CR 5.0****Y**

Beginning with basic script writing techniques and camera and stage use, the course emphasizes the development of live studio television. Historical, ethical, and legal aspects of media-society relations are examined.

YEARBOOK/DESKTOP PUBLISHING CP**CRS 1837****GR 10-12****CR 5.0****Y**

In this class, students will collect, analyze, and organize information and use page layout software to arrange text and graphics to create publications such as newsletters, flyers, and brochures. Students will also create the school yearbook. Through the yearbook, students will experience all aspects of publication design including planning, project management, deadlines, and promotion.

THE EVOLUTION OF TELEVISION CP**CRS 1610****GR 9-12****CR 2.5****S**

This course will look at how TV shows have changed over the decades and how networks decide what they put on the air. Students will also understand how network TV has learned to compete with cable and streaming and how it has affected their programming. Students will view real world examples of shows, both domestic and international, which will support the ideas and theories presented in class.

VIDEO PRE-PRODUCTION CP**CRS 1660****GR 9-12****CR 2.5****S1 ONLY**

Students will learn technical knowledge and skills of video production and demonstrate effective pre-production and production practices. Students will write a production treatment/plan and a script/storyboard. Examples include lead-in/out (open/close), public service announcement, commercial, interview, news story, and drama. Students will also identify the team roles required for success of each production. In addition, students will shoot a news show, studio production, and field production.

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

Students will demonstrate effective post-production practices by identifying total quality management principles/disciplines and listing checks used to ensure proper execution of a production plan. Students will be able to describe techniques used to monitor, review and adjust a production schedule as necessary to meet quality standards. In addition, students will identify the criteria to which the professional should follow when making final adjustments. Finally, students will identify the depth of field and its relationship to amount of available light, filter selection, and aperture and be able to identify the parts of and operate a TV camera and explain the use of a waveform monitor and vectorscope, properly adjust a camera, including setting gain, filters, aperture, focus, white balance, and phase.

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 CP**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 CP**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 CP 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.

BUSINESS WRITING CP CRS 1165 GR 11-12 CR 2.5 S

This elective course is offered during alternating years and focuses on preparing students for writing in the business world. Topics include resumes, cover letters, writing effective letters, memos, and emails. Students will be guided through the process of effective written communication for business purposes.

SHORT STORIES CP 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 CP 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 CP 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.

OTHER VOICES CP 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.

JOURNALISM CP CRS 1624 GR 10-12 CR 2.5 S

This elective course is offered during alternating years and is designed to teach students the basic skills needed to write for publication. Emphasis is placed on developing an understanding of the whole communication process and demonstrating how writers use words to convey ideas and impressions, as well as facts. Students will put their journalistic skills to practical use by producing a school newspaper.

HEROES AND VILLAINS CP 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

PHOTO/VIDEO I CP 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 CP CRS 1802 GR 10-12 CR 2.5 S

This course is a continuation of Photo/Video I. Students will expand their knowledge of editing tools and techniques and create photographs and videos that tell a narrative, or story. Students must have successfully completed Photo/Video I to enroll.

COMPUTER ART & DESIGN I CP 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 CP 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 H 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 CP 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 CP 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.

ART HISTORY CP CRS 1829/1825 GR 10-12 CR 5.0/2.5 S/Y

This course familiarizes students with the history of art from prehistoric times to the present, emphasizing the different periods and styles of art, techniques and also exploring their common themes. Studio art activities and films will supplement presentations and discussions. A trip to an art museum allows students the opportunity to see works of art in person.

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, 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.

CALCULUS HONORS**CRS 1457****GR 12****CR 5.0****Y**

In this course, students will begin their study of calculus topics including limits, continuity, derivatives, integrals, sequences, and series. Each topic will be studied at an abstract level as well as with real life applications. Students who would like an introduction to calculus but who do not intend to take the AP exam should sign up for this course. Graphing calculators are required for this course. **Pre-requisite:** Completion of Pre-Calculus or Special Permission from the math department liaison and school counselor.

ADVANCED PLACEMENT CALCULUS**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.*

STATISTICS**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.

CONCERT BAND H

CRS 1858/1859 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. 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. In order to achieve honors credit, students will be expected to participate in supervised practice after-school and complete assignments throughout the year in addition to the CP requirements. Enrollment in this section of concert band requires the signed approval of a parent and the instructor.

CONCERT CHOIR CP

CRS 1863/1862 GR 9-12

CR 2.5/5.0

S/Y

The ASRHS Concert Choir is a non-selective vocal performance ensemble. The course stresses the fundamentals of vocal technique and performance. Students study and perform music from a wide range of musical styles, encompassing all periods of music history and cultures. Previous singing experience is helpful, but not necessary. Enrollment in this course requires attendance at all scheduled concerts.

CONCERT CHOIR H

CRS 1865/1864 GR 9-12

CR 2.5/5.0

S/Y

The ASRHS Concert Choir is a non-selective vocal performance ensemble. The course stresses the fundamentals of vocal technique and performance. Students study and perform music from a wide range of musical styles, encompassing all periods of music history and cultures. Previous singing experience is helpful, but not necessary. Enrollment in this course requires attendance at all scheduled concerts. In order to achieve honors credit, students will be expected to participate in supervised practice after-school and complete assignments throughout the year in addition to the CP requirements. Enrollment in this section of concert choir requires the signed approval of a parent and the instructor.

MUSIC IN OUR LIVES CP

CRS 1877

GR 9-12

CR 2.5

S

This course offers students with little to no musical experience exposure to many different aspects of music. It is intended for those students who are not really sure about music, and want to explore the musical world. Students will receive basic instruction in African drumming, guitar, singing, piano, percussion, reading musical notation, music history, composition, and more. The goal is to help the students to make an educated choice as to what area of music they may wish to pursue in the future.

INTRODUCTION TO MUSIC THEORY/COMPOSITION CP

CRS 1875

GR 9-12

CR 2.5

S

This course attempts to answer the question, how and why does music sound the way it does? Students will have an in-depth study of the basic elements of music including pitch, rhythm, melody, harmony, expressive elements, timbre, and form. Ability to sing or play an instrument is helpful, but not required to take the course.

MUSIC THEORY II H

CRS 1876

GR 9-12

CR 2.5

S

This course is a continuation of Introduction to Music Theory/Composition and provides an in-depth study of harmony progressing through the 20th century and atonality. Students will also be introduced to ear training, dictation, and solfege. Enrollment in this course requires successful completion of Introduction to Music Theory/Composition and/or approval of the instructor.

INTRODUCTION TO GUITAR CP CRS 1882 GR 9-12 CR 2.5 S

This course is designed for students with little, or no, experience playing guitar, but wish to take their guitar study seriously. The concepts of reading and performing standard notation, chords, guitar technique, and improvisation will be presented. No experience in choral or instrumental music is necessary. Students do not need to know how to read music to enroll in this course.

SCIENCE

PRINCIPLES OF ENGINEERING I CP

CRS 1576 Gr: 9-12 CR 5.0 Y

This is a hands-on course that 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. Along with *Principles of Engineering I CP - B* and *Principles of Engineering II (Honors)*, 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 engineers brings 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.

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 class is a laboratory science course and follows the AP Course Audit syllabus for AP Biology, and 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 a 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 but without as much depth of understanding required. 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. Participation in some form is required. *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 (Not offered 2017-2018)*

BRAIN, BODY AND MIND**CRS 1583****GR 11-12****CR 5.0****Y**

Using a holistic approach this course will examine how the internal and external environments act upon the brain to produce perceptions, control body functions, and generate behavior. Basic principles of neuroanatomy, neurophysiology, and neurochemistry will be discussed to develop an understanding of how these biological factors underlie human brain function. Topics will include learning and memory, emotions, neurological and neuropsychiatric disorders. *Prerequisite: Completion of Biology (Not offered 2017-2018)*

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 9-12****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.

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 concurrent or subsequent 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: CAD I or special permission, Principles of Engineering I & II or special permission and concurrent or subsequent 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.

DOLLARS AND SENSE CP 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 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 impact of political and social decisions on the economy. *This course or its equivalent is required for graduation.*

CURRENT EVENTS AND ISSUES CP 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 CP 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 CP 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.

TERRORISM, TOLERANCE AND TECH WARFARE CP**CRS 1265 GR 11-12 CR 2.5 S**

This elective course focuses mainly on world history and affairs. Areas of focus will be how religion, world leaders, terrorism and warfare have connected and evolved over time, and how these issues affect our world today.

COMPETITION, CORRUPTION AND CURRENCY; THE HISTORY OF SPORTS CP**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 CP

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 CP

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, county, and local agencies are examined.

HISTORY THROUGH FILM CP

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 CP

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 transition from blues to hard rock. We will be listening to selections ranging from Muddy Waters, Elvis, Johnny Cash, Creedence Clearwater Revival, The Beatles, The Rolling Stones, Led Zeppelin and many more. The course will transition from hard rock to the dark ages of rock and roll, then the rejuvenation of hard rock music in the 1980’s and end with the 1990’s grunge scene.

WORLD LANGUAGE

MANDARIN I CP

CRS 1370 GR 9-12 CR 5.0 Y

Chinese characters are used extensively throughout the course accompanied by Pinyin, which acts as a pronunciation guide. Pinyin is gradually omitted as students become familiar with the characters and vocabulary. Students will learn pronunciation skills, common characters, basic grammar, simple phrases and sentence patterns that are needed for communicating in basic, practical situations. Thematic topics include, introductions, numbers, age, identifying others, family, pets, countries, nationalities sports, friends and food. Relevant cultural topics about China are also included.

LATIN I CP **CRS 1340** **GR 9-12** **CR 5.0** **Y**
This course introduces students to basic Latin grammar and vocabulary, reinforcing their grasp of English grammar and vocabulary in the process. Students will learn about aspects of Roman daily life, and will become acquainted with main aspects of Roman history and government, noticing contemporary connections. Readings will focus on early Roman history, drawn from Vergil's Aeneid.

LATIN II CP **CRS 1342** **GR 9-12** **CR 5.0** **Y**
This course continues the process of mastering Latin grammar and vocabulary, and connections to English. Students will continue to learn about Roman daily life and Roman history, with readings adapted from Vergil, Livy and other classic Roman writers.

FRENCH I CP **CRS 1321** **GR 9-12** **CR 5.0** **Y**
This course develops knowledge of basic French, including vocabulary regarding family, friends, personal possessions, places, clothing, shopping, and weekend activities. Students will develop an appreciation of the cultural differences between French-speaking nations, and will learn about the daily life of French teenagers.

FRENCH II CP **CRS 1322** **GR 9-12** **CR 5.0** **Y**
This course furthers the development of spoken and written French with the addition of new vocabulary and verb tenses. Linguistic and cultural differences continue to be explored. Students will begin to read and write longer passages and stories in French.

FRENCH III CP **CRS 1328** **GR 10-12** **CR 5.0** **Y**
This course teaches students the remainder of the grammatical components of the French language, culminating with the uses of the subjunctive. The course is taught primarily in French, and students will have longer reading and writing projects. Students will learn about French art and history as well.

FRENCH III H **CRS 1323** **GR 10-12** **CR 5.0** **Y**
This course completes the grammatical mastery of the French language, culminating with the uses of the subjunctive. The course is taught in French, and students will have longer reading and writing projects. Students will learn about French art and history as well.

FRENCH IV H **CRS 1324** **GR 10-12** **CR 5.0** **Y**
Students at this level will be reading from French literature and perfecting writing and speaking skills. Advanced placement exam in French may be a possible outcome.

FRENCH V H **CRS 1325** **GR 11-12** **CR 5.0** **Y**
This course is the first of two courses, taken in the fall and in the spring, that together prepare the advanced student to take the Advanced Placement French Language exam. In French Five the emphasis is on the thorough review of all aspects of the language. In addition students read and write about selections from French literature on a weekly basis. Students discuss language and literature daily; the class is conducted entirely in French. Students view a number of French films and are responsible to read two novels of their choosing. The class reads a weekly French newspaper, with oral presentation and discussion follow-up. Through writing and speaking on a wide range of topics students expand their vocabulary, develop their writing style and improve their critical thinking skills.

ADVANCED PLACEMENT FRENCH CRS 1327 **GR 11-12** **CR 5.0** **Y**
Students who have completed the fifth level French course are ready to focus on the four skills of reading, writing, listening and speaking in French that are evaluated by the French Language Advanced Placement Exam. Students continue with extensive reading, writing and discussion, and in addition have assignments that parallel the structure of the exam: reading passages for comprehension, listening for comprehension, timed writing and speaking sessions. Prior to the exam in May students will have taken three timed practice exams. They will finish the course ready to succeed to the best of their ability on the French language and culture, Advanced Placement exam, which is equivalent to the completion of a third year college course.

This course is designed to help students 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 2011 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

NAVIANCE

Naviance is an online software program which provides students with a variety of online tools to navigate college and career planning. Through college and career exploration activities, Naviance provides guidance on the courses students should elect to take in their high school years. 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.

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:

- **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 National Merit Scholarship Qualifying Test is 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

- **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.
- **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 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.

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.

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

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	University Admission Combined CR and Math SAT Scores Must Equal or Exceed	State College 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	950 (20)	920 (19)
2.41-2.50	990 (21)	960 (20)
2.31-2.40	1030 (22)	1000 (21)
2.21-2.30	1070 (23)	1040 (22)
2.11-2.20	1100 (24)	1080 (23)
2.00-2.10	1150 (25)	1120 (24)

No student with a GPA below 2.00 may be admitted to a State College 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.

NOTES

QUESTIONS TO ASK



Program of Studies 2017 – 2018

141 Washington Street
Ayer, MA 01432
Phone: 978-772-8600
Fax: 978-772-8615
www.asrsd.org