

AHS
PROGRAM
OF
STUDIES
2021-2022



Updates Specific to 2021-2022

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Overview of Arlington High School

Learning, Connecting and Caring as a Community

I. Mission Statement and Expectations

Mission Statement

In an effort to foster academic excellence and personal achievement at the highest levels, Arlington High School focuses on learning, connecting, and caring as a community. AHS provides a safe, supporting, nurturing environment in which students can acquire knowledge, values, and intellectual curiosity that will lead to lifelong learning. As a community we have agreed upon the following values and habits of mind as foundational principles that will guide all teaching and learning and policy decisions at Arlington High School. They are:

- Integrity
- Communication
- Accountability and responsibility
- Respect
- Effective teamwork

We believe that living these values and habits of mind on a daily basis will ensure all students a rigorous high school education that will prepare them for their future roles as learners, leaders, and citizens in a 21st century democracy.

Academic Expectations for Students

Arlington High School students will:

- Gather data and critically evaluate the content, source, and relevance of that data, especially but not exclusively, through the use of technology
- Reason logically, using appropriate qualitative or quantitative methods and use their analysis to answer questions
- Write clearly and effectively.
- Listen actively and respond through inquiry, discussion, writing, and various forms of art
- Read and comprehend varied materials and be able to interpret and apply what they have read.
- Speak clearly and effectively in a variety of contexts
- Demonstrate life, leadership, physical, and cognitive skills through projects, performance, and products

21st Century Focus Credits Across the Curriculum

- Higher-order thinking skills through interdisciplinary learning, analysis, and synthesis of information.
- Media literacy
- Math, science, technology, and engineering expertise
- Teamwork in a diverse, multicultural world
- Stress and time management
- Communication skills
- A love of learning coupled with a willingness to work hard

II. Graduation Requirements

Graduation Requirements

1. Pass MCAS exam in ELA, Math and STE (further explained below)
2. Pass four years of English
3. Pass three years of History/Social Science (to include World History, US History I and US History II)
4. Pass three years of Science (to include Physical Science to pass Introductory Physics MCAS)
5. Pass three years of Mathematics (to include Algebra & Geometry)
6. Pass four years of Physical Education (*see below for further information)
7. Pass one year of Fine Arts (5 credits) (*see below for further information)
8. Pass two years of World Languages (three years of the same language is strongly recommended)
9. Demonstrate competency in Computer Technology
10. Perform and document 40 hours of community service
11. 106 credits minimum

Definition of the 5-credit Fine Arts Graduation Requirement

Grades 9-12

Our fine arts classes work toward the standards expressed in the Massachusetts Art Curriculum Framework. This Framework sets the expectation that all students in the Commonwealth's public schools will become proficient in understanding the arts and communicating in at least one arts discipline by the time they graduate from high school. In dance, music, theatre, and visual arts, people express ideas and emotions that they cannot express in language alone. In order to understand the range and depth of the human imagination, one must have knowledge of the arts. For this reason, courses fulfilling the Fine Arts requirement have their dominant focus on nonverbal expression, creation, creativity, and aesthetic education. These courses value originality, stimulate imagination and creativity, and aim to deepen students' learning by increasing their response to beauty in all of its forms.

Courses which currently fulfill the requirement for Fine Arts include:

- a.) Any course offered by the Visual Arts Dept. (see department subsection below)
- b.) Any course offered by the Performing Arts Dept. (see department subsection below)
- c.) In addition, the following Family and Consumer Science courses will fulfill the requirement:
 - a. CS1921Z Interior and Fashion Design I
 - b. CS2921Z Interior and Fashion Design II
 - c. AC3602Z Sculptural and Functional Woodworking

Definition of the Four Year Physical Education Graduation Requirement*

- **Grade 9:** Students are required to take the 9th Grade Program.
- **Grade 10:** Students are required to take two different quartered electives (preferably in the same semester). Students are not allowed to take electives marked for Grade 11 and 12 only. (each course is one quarter long)
- **Grades 11 and 12:** Students are required to take two quarter electives by the time of their graduation. This may entail taking two quartered electives during your junior year, or one junior and one senior year. Spaces may be limited in some electives. Seniors are given preference. Grade 12 students cannot enroll in Quarter 4 PE electives because the length of quarter 4 for seniors is shortened.
- **There is a 4 absence allowance for all Quarter Elective classes. If a student surpasses the 4 absence allowance they must enroll in another elective in a different quarter to earn PE**

Graduation requirement credit and may require changes to their schedule in order to complete this requirement.

***Covid-19 update:**

Members of the Class of 2022 enrolled in Term 4 Physical Education classes in 2020 will not have an opportunity to complete those credits because of our remote status in the 2020 school year. Making up this term in later years will substantially reduce opportunities for them to explore other academic offerings and will require them to take more than the usual amount of PE in one year.

For this reason, we will reduce the Physical Education graduation requirement for the Classes of 2022 by one term of Physical Education (requiring Grade 9 PE and a total of 3 quarters of PE during grades 10-12)

- Class of 2022 - will require 4 PE courses (9th grade PE and 3 quarter electives)
- Class of 2023 - will require 5 PE courses (9th grade PE and 4 quarter electives)
- Class of 2024 - will require 5 PE courses (9th grade PE and 4 quarter electives)
- Class of 2025 - will require 5 PE courses (9th grade PE and 4 quarter electives)

Promotion and Graduation

Students must earn a passing final grade for the course in order to earn course credits towards graduation. For a student to advance from one grade level to the next higher grade level, the following requirements should be met:

Grade 10	22 credits minimum
Grade 11	48 credits minimum
Grade 12	72 credits minimum
Graduation	106 credits minimum

MCAS Competency Determination

Students must meet or exceed a score of 472 or higher on the Massachusetts Comprehensive Assessment System (MCAS) in the subject areas of English Language Arts and Mathematics. Students who earn a scaled score between 440 and 469 on the English Language Arts and Mathematics examinations may receive a high school diploma only by demonstrating proficiency in the subject matter through completion of an Education Proficiency Plan (EPP) by continuing additional work in the targeted content area(s) through grade 12.

Students must also meet or exceed a scaled score of 220 on the Science, Technology and Engineering Exam in the one of the tested subject areas: Chemistry, Introductory Physics, Biology, or Technology/Engineering. These are subject to change as the state updates the requirements.**

**Students whose year of graduation is 2022, 2023 will not be required to take the STE upon district certification that the student earned credit for a course aligned to the curriculum frameworks in the relevant subject matter and has demonstrated competency in one of the four tested disciplines (biology, chemistry, introductory physics, and technology/engineering) in either the 19-20 school year or a prior school year.

MCAS exam	Scaled Scores	Achievement Level	Achievement Levels Legend	Subjects
	440 - 469	NM	Not Meeting Expectations Requires an EPP	

Next Generation	470 - 499	PM	Partially Meeting Expectations	-Mathematics
Exam	500 - 529	M	Meeting Expectations	-ELA
	530-560	E	Exceeding Expectations	
	200 - 218	F	Failing	Science/Technology Exam
Legacy	220 - 238	NI	Needs Improvement (requires an EPP)	Biology
	240 - 258	P	Proficient	Chemistry
				Introductory
				Physics
				Technology/
	260 - 280	A	Advanced	Engineering

Waivers & Substitutions

Requests for relief/substitution of a graduation requirement must be made in writing to the Principal who has final decision-making authority on local requirements for graduation.

Procedure and Requirements for Early Graduation

1. Petition for Early Graduation Release must be made in writing to the Principal.
2. Application for Early Graduation release will be reviewed by the school counselor and the Principal, or his designee, to outline a program for completion of graduation requirements. The request will then be forwarded to the School Committee for a final decision.
3. Students accepted for Early Graduation Release are normally required to leave school at the same date all other seniors leave school. Exceptions need to be approved by the Principal.
4. Students who intend to apply for early graduation must meet the following requirements: completion of all local graduation requirements, successful competency determination in Math, ELA, and Science on the MCAS exams, and a plan for the immediate future, signed by the student's parent or guardian.

Course Makeup Policy

It is recommended that a senior who has not met the graduation requirements attend an approved summer school (high school and/or college) and make up credits or required courses immediately, in order to receive their diploma in August of the year they were to have graduated. A diploma will not be conferred to a senior until they have completed all requirements towards graduation.

Any other student at the end of the freshman, sophomore or junior year is encouraged to make up credits or courses lost during that year. This will help to ensure the proper credits necessary for graduation. Students may not make up more than two required courses (English, Mathematics, U.S. History, etc.) in summer school. The two-course limit on required courses applies to the student's entire academic career at AHS and may not be interpreted as two courses per year. Students with extenuating health related circumstances may appeal this limit to the Principal.

- A student must have all summer school courses approved by the Principal or their designee **prior** to registering.
- Prior to continuing in a sequential course, a student must pass an AHS proficiency examination as determined by the department chair for the subject. If the course is not sequential, a proficiency examination will not be required.

- Enrichment courses may be taken any time at the discretion of the Principal. The credit and grade will neither be used in the calculation of either GPA or weighted GPA, nor will the course be shown on the high school transcript.
- Courses passed in summer school or courses that are taken through tutoring or outside of the normal semester or year-long timelines, become a part of the student's permanent record. The grade is recorded, but is not calculated in the student's GPA or weighted GPA. Maximum credit value can range from 2.5 to 5.0 credits, depending on the number of hours required in the study of that subject.

III. Introduction to Course Selection

The information contained in this Program of Studies is designed to guide students and parents in making important educational decisions for the upcoming school year. **All course offerings are dependent on the finalized school budget, enrollment, and student need. The school reserves the right to delete or amend course offerings based on financial considerations.**

Philosophy of Course Level Enrollment

The Arlington Public Schools encourage all students to meet their maximum potential. Recommended prerequisites are intended to identify the skills and competencies students should possess prior to enrollment in order to be successful in a given course. Required prerequisites that are not tied to sequential course offerings, i.e., you must take Spanish II before you can take Spanish III, are inconsistent with this vision and shall not be barriers to course selection. Teachers and counselors can provide specific assignments and samples of coursework to help students make their choices about appropriate courses and levels of study. *While we encourage students to seek a challenging course of study, a schedule with 3 college-level courses (e.g., Advanced Placement) is generally considered to be our most demanding program.*

Course Selection Guidelines

- School Counselors work with students to choose the appropriate number and selection of required and elective courses for each individual student.
- The number of students in a particular course will vary based on the requests of students. If there are an insufficient number of students requesting a particular course, the course will not be offered, and those students who have requested it will be assigned to one of their alternate choices.
- Students who select a particular course at the time of the initial course selection should choose the **appropriate level** at that time. It may not be possible to adjust that level at a later date given the tightness of the class size/course selection process. Students should consult with their teachers and counselors to make the most appropriate educational choices. Changes will not be made in the fall if a class overload would result.
- Students who are interested in college athletics will need to satisfy NCAA Eligibility Criteria which is available on their website, www.ncaaclearinghouse.org. All of the courses offered at AHS are designed to prepare our students for college. Historically, Curriculum A, Honors and AP courses have met these standards, while Curriculum B courses have not. Students and parents are encouraged to look at the website to confirm for themselves that their courses meet these standards.
- All Freshman, Sophomore and Junior students attending classes at Arlington High School will be scheduled for 32.5 credits per year (minimum). All Seniors will be scheduled for 30 credits (minimum) per year. Exceptions to the credit minimums must be approved by a school administrator.
- All course schedules are subject to final approval of the administration.

Policy for Online Coursework and Dual Enrollment Coursework

Dual enrollment refers to the practice of students receiving credit from their high school for a course taken via a college or university, with the course included on both the high school and collegiate transcript.

Online learning, a practice where students learn in an asynchronous or synchronous format from a device-based platform is a broader term with no specific conditions in regards to high school credit.

Students whose medical needs render the student unable to remain in school for a full school day may petition, on a case by case basis, for acceptance of online coursework via their school counselor and Dean, who will seek approval for the requested online coursework with the department head of the subject of the course.

Arlington High School's leadership team encourages the practice of obtaining credit and online learning credit via established partnerships between our school and external educational organizations. This includes, but is not limited to, our courses offered in partnership with Syracuse University Project Advance, the Global Studies Consortium course offered in partnership with Harvard Extension School, the DESE funded dual enrollment opportunities for public high school students offered via Framingham State University, and our blended learning course offered to groups of students via EdX and Coursera. In addition, students may participate in a state offered dual enrollment program through community colleges such as Middlesex and Mass Bay Community Colleges. Each of these opportunities is handled in ways specific to the program and it is important to check with your school counselor at the time of enrollment for specific course requirements.

Students are able to take courses, online or in-person from organizations not partnered with Arlington High School and to submit course descriptions and transcripts as additional information when they apply to college, but these experiences are not governed, sanctioned, or funded by Arlington High School and will not be reflected on the Arlington High School transcript.

Homeschool Students at AHS

Homeschool students are expected to remain in good standing, abide by the code of conduct and AHS attendance policies. Specifically, this means that the student will be subject to the following expectations.

- The student will abide by the Arlington High School discipline code.
- The student will attend class every day on time in accordance with the attendance policy.
- The student will not remain on school grounds during their unscheduled time
- The student will receive an AHS transcript for grades and credits earned.

Should the conditions not be followed, Administration may revisit the student's participation in classes at AHS. If the student is eligible for special education any change in services is subject to state and federal laws governing students eligible for special education.

Schedule Distribution Timetable

As has been the practice in previous years, final student schedules will be distributed by August at the latest. Every attempt will be made to issue a preliminary schedule at the end of the school year or in early summer so that attempts to resolve errors, conflicts, and omissions can take place before the start of the new school year. While students may need to change courses based on their educational goals, no changes that unreasonably overload or imbalance the sizes of existing classes will be made. In particular, changes based on teacher, rather than course preferences, will not be honored.

AHS Course Levels

The following course levels are offered at Arlington High School:

- **Advanced Placement** - primarily for students in Grades 11 and 12, AP courses offer a fast-paced, intensive, college-level, exposure to a specific curriculum. Students in AP courses must take the AP exam, offered by the College Board, at the end of the school year in order to receive AP credit for these courses.

- **Curriculum H** - for students in Grades 9 – 12, Curriculum H courses are driven by independent student-work and, along with Advanced Placement courses, require the highest amount of student discipline, energy, effort, and organizational skills.
- **Curriculum A** - for students in Grades 9 – 12, Curriculum A courses are college preparatory courses that cover rigorous content, college preparatory skill development, and specific instruction from teachers in study skills.
- **Curriculum B** - for students in Grades 9 – 11 with teacher and school counselor approval only, Curriculum B courses allow for some remediation while still providing preparation for college and career. Students who are interested in Division 1 or 2 college athletics will need to satisfy NCAA Eligibility Criteria which is available on their website, www.ncaaclearinghouse.org. Historically, Curriculum A, Honors and AP courses have met these standards. Please note that the NCAA has not approved Curriculum B core classes at this point in time.
- **Heterogeneous courses** - Courses with this designation are offered to all students. Students access the same curriculum at the same time with the same teacher. Teachers will differentiate instruction to ensure that all students are appropriately challenged by the curriculum and can reach their full potential. Although this practice is not new to Arlington High School, we are making an effort to ensure that all students take at least two heterogeneous classes in core content areas before they graduate, as required by the New England Association of Schools and Colleges (NEASC). *Students have the option of earning Honors Credit through more challenging research and project work. Students who are interested in earning Honors credit will inform the teacher in September.*

	Curriculum H and AP	Curriculum A	Curriculum B
Reading and writing	Reading and Writing tasks require <u>proficiency</u> in and understanding of topic, development, tone, purpose, voice, structure, grammar, spelling & punctuation.	Reading and writing require <u>increasing independence</u> in understanding of topic development, tone, purpose, voice, structure, grammar, spelling & punctuation.	Reading and Writing tasks <u>directly teach skills</u> in topic development, writer’s purpose, structure, grammar, spelling & punctuation.
Essays and open-ended questions	Essays and open-ended questions regularly require development of ideas in <u>4-9 paragraphs</u> .	Essays and open-ended questions regularly require students <u>to extend and expand</u> upon development of ideas in <u>4-6 paragraphs</u>	Essays and open-ended questions include <u>direct instruction</u> in creating beginning, middle (development and organization) and end.
Problem solving	Problems require <u>independent application</u> of multiple strategies to reach solutions.	Problems require <u>minimal guidance</u> in application of strategies to reach solutions.	Problems require <u>considerable guidance</u> in application of strategies to reach solutions.

<p>Reading, lab experiences, media viewing</p>	<p>Reading, lab experiences, media viewing, etc. lead to <u>independently</u> drawing inferences and making comparisons, analysis and evaluations.</p>	<p>Reading, lab experiences, media viewing, etc. require <u>increasing independence</u> in drawing inferences, making comparisons, analysis and evaluations.</p>	<p>Reading, lab experiences, media viewing, etc. require comparison and contrast and some analysis and evaluation with <u>ongoing support</u>.</p>
<p>Textbooks and other information sources</p>	<p>Textbooks and other information sources (essays, works of art, magazines, and newspapers, electronic) are regularly assigned for <u>independent</u> analysis.</p>	<p>Textbooks and other information sources (essays, works of art, magazines, and newspapers, electronic) are regularly assigned and require <u>some independent</u> analysis.</p>	<p>Textbooks and other information sources (essays, works of art, magazines, and newspapers, electronic) are regularly assigned and explored with <u>considerable</u> support.</p>
<p>Student performance tasks</p>	<p>Student performance tasks and assignments are substantial and require <u>independent</u> time management and study skills.</p>	<p>Student performance tasks and assignments are substantial and assume <u>increasing independent</u> time management and study skills.</p>	<p>Student performance tasks and assignments require time management and study skills directly taught and reviewed by the instructor.</p>
<p>Research assignments</p>	<p>Research assignments are carried out <u>independently</u> and require electronic and traditional sources and may include essays of extended length.</p>	<p>Research assignments are <u>carried out with increasing independence</u> and require electronic and traditional sources and may include essays.</p>	<p>Research assignments include <u>explicit teaching of</u> skills of planning, writing and syntheses and revision using electronic and traditional sources</p>

<p>Student tasks</p>	<p>Student tasks regularly require demonstration of creativity and originality independently. Students move beyond proficiency to sophistication in both oral and written language as they make original connections, and apply them to new and different problems.</p>	<p>Student tasks regularly require Demonstration of creativity and originality. Students are increasingly independent in making original connections, and in applying them to new and different problems.</p>	<p>Student tasks regularly require demonstration of creativity and originality with <u>guidance & considerable support</u>. Student tasks require comprehensive idea formation and clearly supported personal opinion.</p>
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IV. Report Cards

At the end of each school marking term, a report card is issued to each student. This report is available through the online parent portal and student portal or, upon request, is mailed home to parents or guardians. All grades and attendance become a part of the student’s high school record. The following letter grades will be used in rating scholarship achievement in the courses taken:

Letter Grade Explanation

- A Superior work. Content knowledge, complex reasoning skills, and work habits exceed the standard for the course.
- B Proficient work. Content knowledge, complex reasoning skills, and work habits meet the standards of the course.
- C Fair work. Content knowledge, complex reasoning skills, and work habits partially meet the standards for the course.
- D Poor work. Content knowledge, complex reasoning skills, and work habits meet only the minimum standards for credit in the course.
- F Failure. Student has failed to demonstrate the minimum expectations for content knowledge and complex reasoning skills in the course.
- P Pass. Student has demonstrated the expectations for content knowledge and complex reasoning skills and work habits in a course designated pass/fail.
- H Honors
- S Satisfactory
- U Unsatisfactory
- W Withdraw - Student withdrew from the class after the official date to be removed from a class.

Term Grades

The following grades may appear in the term grade for a course, but will not appear in the year-end grade for the course.

- FA Failure due to excessive unexcused absences (seven or more). The comment from the teacher will detail the grade the student would have received.
- I Incomplete. Requirements of course have not been met due to excusable absences. Student will have a limited, agreed upon time to complete assignments.
- NG No grade. Student was not present for sufficient amount of time to receive a grade.
- M Medical absence (The quarter is not counted as part of the student’s final year average.)

Parent and Student Portal

At the beginning of each year, parents will be issued a password in order to check attendance and grades for their children at the high school. The information in the Parent Portal is provided by the staff to keep parents aware of both attendance and academic progress throughout each term and year. A password is also issued to each student to enter a Student Portal so that they may check on their daily progress in each class. **It is the responsibility of students to address any concerns or difference of opinions with their teachers on attendance and/or grades that are posted in PowerSchool.**

Final Exams

- For full year courses, final examinations are scheduled at the end of the year.
- For semester (1/2 year) courses, final exams will be administered at the end of each semester
- The final examination counts for 11% of the final year grade for full year courses; 20% for semester courses.

Course Transfer/Withdrawal

A formal withdrawal procedure must be followed in order to change or withdraw from a course. A student should consult their counselor and teacher when a course change is being considered. When course changes are deemed appropriate, a change in programming will be made.

The final date to request a course change for a course will be 3 weeks after the first day of school. For the few electives or other classes that are offered during second semester, the final date to request a change is 3 weeks after the first day of term 3. (See chart below for specific dates). Any course change after this deadline will be reflected with a W in the term and end of year grade, but it will not impact their GPA. Please note, these deadlines are also applied to any student wishing to change from a heterogeneous level within a course to an honors level.

These dates will be finalized once the calendar year for 2021-2022 is finalized by the School Committee

Year long course	3 weeks after first day of school	September 29, 2021
Semester 1 course	2 weeks after first day of school	September 22, 2021
Semester 2 course	2 weeks after first day of term 3	January 28, 2022
Quarter 1	1 weeks after the first day of term 1	September 14, 2022
Quarter 2	1 week after the first day of term 2	November 18, 2021
Quarter 3	1 week after the first day of term 3	February 5, 2022
Quarter 4	1 week after the first day of term 4	April 17, 2020

*these dates are subject to change as the schedule for 2020-2021 is finalized

When a student transfers from one level to another in the same content area (Honors Geometry to Curriculum A Geometry) the student's grade for the course travels with him/her and is averaged into the final grade for the term in the receiving course. When a student replaces one course with a completely different course, (i.e. Astronomy to French I) the grade does not travel with the student. If a student enters the new class too late in the term to earn a grade they will receive an NG in the receiving class. If it is determined that a student must change their schedule after the above deadline, teachers, department heads, counselors, special education liaisons (when applicable) and house deans can and will be involved in the decision to withdraw a student from a course and determine the grade adjustment for shifting levels or whether sufficient work exists to receive a grade.

Auditing Courses

The option to audit a course will be approved by the Principal in extenuating circumstances. Auditing is a procedure whereby students attend a class for no credit. It is understood that a student who wishes to audit a course and have a notation of that audit appear on the transcript must meet regular attendance and class participation standards in that class.

V. Transcripts and GPA

Unlike report cards, which list grades by quarter and semester, transcripts only list final grades. (Senior transcripts, in the first part of senior year, do carry term grades as a way of notifying colleges of the students' academic progress in twelfth grade.) In addition, transcripts also list the students' weighted GPA (Grade Point Average) and unweighted GPA. This information is provided unofficially by teachers, in Naviance and PowerSchool. The only recognized official weighted or unweighted GPA is that which appears on an official school transcript. Note that students are not ranked at Arlington High School.

Grade Point Cumulative Average (GPA)

The grades a student earns will be averaged into a grade point average (GPA). The Grade Point Average is a student's non-weighted grade point cumulative average based on the following translation for each letter grade of A, B, C, D or F. The highest GPA is 4.3

A+ (97-100) = 4.3	A (93-96) = 4.0	A- (90-92) = 3.7
B+ (87-89) = 3.3	B (83-86) = 3.0	B- (80-82) = 2.7
C+ (77-79) = 2.3	C (73-76) = 2.0	C- (70-72) = 1.7
D+ (67-69) = 1.3	D (63-66) = 1.0	D- (60-62) = 0.7
	F (59 & below) = 0	

Weighted GPA

The top weighted GPA is 5.0. The lack of availability of AP courses at 9th and 10th grade levels prevents any student from attaining a 5.25 weighted GPA, the top value for AP grade – see chart below.

Students receive credits for each quarter or term grade. The credits are factored in as part of the weighted GPA. The final credits awarded for the course, however, are based on the student's Y1 grade, i.e., the student's grade for the year. Students who receive a passing grade for the year in a course, will receive full credit for that course.

Weighted GPA

	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-
AP	5.25	5.0	4.7	4.3	4.0	3.7	3.3	3.0	2.7	2.3	2.0	1.7
Curr. H	5.0	4.75	4.45	4.05	3.75	3.45	3.05	2.75	2.45	2.05	1.75	1.45
Curr. A	4.75	4.5	4.2	3.8	3.5	3.2	2.8	2.5	2.2	1.8	1.5	1.2
Curr. B	4.5	4.25	3.95	3.55	3.25	2.95	2.55	2.25	1.95	1.55	1.25	0.95

Guidelines for Converting Grades and Credits for Transfer Students

In order to prevent disputes and misunderstandings revolving around the methodology and resulting determination of grade point average (GPA) for transfer students, and to preserve an element of fairness to

students who have spent their whole academic careers at Arlington High School, the following guidelines will be followed:

- The Arlington High School Class grade point average is designed to give information on students' general level of performance in the AHS course of study. It is not realistic to assume that it can reflect with an unassailable level of accuracy student performance demonstrated under a different set of standards in place at other schools. **Therefore, only grades earned at Arlington High School will be used for the purpose of computing grade point average.**
- Transfer students will receive credits for the courses they have taken at their previous high school(s) as transposed into the credit values for Arlington High School (5 credits, 2.5 credits, etc.)

Honors Speakers for Graduation

The Principal appoints the honors speaker(s) for graduation, taking into consideration, student scholarship, school citizenship, and effectiveness as a writer and speaker.

VI. School Counseling Services

Counseling services at Arlington High School are geared to the individual student. Counselors work with students and parents on developmental issues, academic planning, course selection, personal issues, transition concerns, and the career/college search process. Counselors assist students to achieve their academic potential, while encouraging social and extracurricular experiences that provide opportunities for personal growth. Each year, counselors meet with their assigned students, in small groups and on an individual basis as needed, while collaborating with teachers and administrators regarding student progress. In addition, the counselors hold group meetings for parents of grade 10, 11, and 12 students each year.

In the spring, counselors meet individually with students to select challenging courses for the upcoming school year. Course selections, made by students and their parents, are further based on teacher recommendations, and post-secondary interests. Students are encouraged to explore their interests and to hone their talents through the selection of elective courses. Maintaining good grades and an appropriate level of rigor in course selection is emphasized.

School counselors utilize an online tool through the AHS School Counseling website. This program, called Family Connection/Naviance, is a customized planning and advising tool used to instruct all students on matters involving career and college research. Freshman groups focus on transitioning to the high school, goal setting, and involvement in school and community activities. They are given a Naviance account where they complete a Learning Styles Inventory, which aids them in gaining an understanding of how they learn best, as well as a Multiple Intelligence Scale, which indicates each student's strengths. They also begin the process of researching careers and colleges. Sophomore groups revolve around MCAS, PSAT's, course selection and extracurricular activities. Students complete a Personality Profiler and a Career Inventory on Naviance, which exposes them to careers, college majors, and colleges, which best meet their interests and goals. Sophomores continue to expand their search for college majors. Junior groups focus on PSAT's, SAT's, and other standardized testing information. Students are taught how to conduct and fine-tune their college search using Naviance and other tools. They are encouraged to visit colleges, and to interview with college representatives. Counselors help juniors to develop a list of colleges and discuss acquiring teacher letters of recommendation. Seniors work with counselors in groups and on an individual basis to focus on matching their needs and interests to colleges which are a good 'fit'. Students and parents are guided, step-by-step, through the college application process.

College/admissions representatives schedule meetings with students in the AHS Career Center in order to discuss their requirements and to review admissions criteria. These visits include representatives from two and four year colleges, trade schools, the military, year-off programs, and other alternative programs. AHS also

sponsors a Spring College Fair, which hosts representatives from over 150 colleges and universities.

Post-Secondary School Placement

Placement and acceptance into post-secondary schools, especially four-year colleges and universities, both private and state-run, are affected by the following:

- The student transcript: The transcript expresses commitment to learning by the nature and sequence of the course selected and by the marks received
- Recommendations: The student's counselor and teachers usually write recommendations. Recommendations give a picture of the student's academic abilities as well as their involvement in co-curricular activities-sports, music, art, political and community involvement in order to provide a personalized assessment of the student.
- Test scores issued by the College Board or American College Testing Program
- Co-curricular activities, athletics, clubs, service, internships, work experience, in school and in the community

National Standardized Tests

- **PSAT, SAT, ACT** - The College Board of the Educational testing Service and the American College Testing (ACT) Service offer examinations whose scores are sought as part of the admission criteria by post-secondary educational institutions. Arlington High School conducts a Center for Admission testing Programs of the College Board for **PSAT and SAT**. **ACT** test centers are available in the Metropolitan Boston Area. Sophomores are encouraged to take the **Pre-ACT** and Juniors are encouraged to take the **PSAT** to give information for test preparation and testing decisions. Juniors also take the PSAT in order to qualify for the National Merit Scholarship Qualifying Program (NMSQP). Information about these tests is given at regular intervals through the School Counseling Office and the school calendar. Students work out a tentative calendar of testing with their counselors at the end of the sophomore year.
- **AP** - The Advanced Placement Examinations provide the means by which secondary school students may demonstrate their readiness to undertake advanced courses as college freshmen. These tests help colleges judge the qualifications of candidates for advanced placement and college credit.
- **TOEFL** - The Test of English as a Foreign Language (TOEFL) measures the ability of non-native speakers of English to use and understand North American English as it is used in college and University settings.

Social - Emotional Counseling

School Counselors

The relationship a school counselor has with their students is a core component of the counseling program at AHS. Personal counseling is involved every time counselors meet with their students. Issues that arise are addressed based on the counselor's assessment of the personal needs of each student. Students are encouraged to set up an appointment with their counselor to discuss problems and concerns. The counselors value the relationship with each of the students and strive to provide individual support for all students. Counselors are also a resource for parents. Parents should feel free to contact their child's counselor if they have any questions or concerns.

When a student is in need of additional support, one of our school social workers may be of assistance in the situation. If a family or student is interested in services from a clinical social worker their school counselor can make a referral through our Student Support Team.

Clinical Services at AHS

General Services

The Intervention Coordinator/Social Workers offer and coordinate a range of support services at Arlington High School. The Intervention Coordinators provide crisis intervention, individual and group counseling, as well as consultation and support services to students, families, and professionals in the Arlington High School Community. Students are referred due to concerns around anxiety, depression, substance abuse, and behavioral struggles, among others. Deans, teachers, nursing staff, students, parents and school counselors can identify students in need or at risk. The Intervention Coordinator also makes referrals for clinical services in the community, and serves as a liaison to community agencies such as group homes, child welfare social workers, local mental health clinics and private therapists.

There are also several social workers within the Special Education Department (SPED) at the high school. These social workers provide support to students as deemed appropriate in their Individualized Educational Plans (IEPs). Please contact Special Education for more information.

All students returning to school following a hospitalization, safety evaluation, or extended absence, are required to attend a re-entry meeting with their parents/guardians prior to their return to school. In this meeting the student, parent/guardian(s), and appropriate school staff will discuss how the student & family feel about returning to school, make a plan for the student's return to class, and assess and plan for managing make-up work and academics in a way that feels manageable and comfortable. If the student has been hospitalized then parents/guardians are asked to bring the Discharge Summary with them to the re-entry meeting. If the student was evaluated but not admitted to the hospital, please bring a letter of safety from the doctor who did the evaluation. Any other discharge paperwork is also encouraged. THIS IS REQUIRED DOCUMENTATION FOR RE-ENTRY TO SCHOOL.

The Shortstop Program

The Shortstop Program at Arlington High School is a short-term program providing tutoring and counseling support for students returning to school after an extended absence (7 or more days) due to emotional and/or medical reasons. The Instructional Specialist and Social Workers work closely with students and their teachers, enabling them to catch up with assignments and quickly return to classes. Students are offered up to two full days in the Program classroom, and up to eight additional days of help during their study blocks. Those students who require more support after Shortstop may be referred to the Harbor Program.

The Harbor Program

The Harbor Program is a long-term support program aimed at addressing the academic, social, and emotional needs of students with chronic mental health or medical issues. The Instructional Specialists and Social Workers collaborate with students, families, teachers, and outpatient providers, individualizing each student's support plan. Students in Harbor attend Homeroom, Advisory, and one scheduled Harbor Study block each day, as well as regular check-ins with their assigned Social Worker. Referrals to the Harbor Program are made through the School Counseling Department, Nursing, or Deans, and interviews are required for acceptance into the program.

Substance Abuse Services

The Intervention Coordinator, a clinical social worker in our School Counseling Department, also provides a range of support to students affected by substance use. Being caught with drugs or alcohol in or outside of school, or general concern from faculty, staff, or parent/guardian(s) may warrant a student being asked or required to complete an evaluation. Identified students participate in a one-hour evaluation after which the information gathered is used to determine the relative risk that this student may develop or continue to display a substance abuse problem. After this assessment students may be identified as needing a group or individual support and/or out of school support from a range of community resources. In addition, the Intervention Coordinator facilitates the Jive Turkeys, a student-named support group for teens considering making healthier decisions around drinking and other drug use. This group meets Tuesdays during the school day.

The Millbrook Program

Millbrook is an in district, general education, transition and assessment program which assists in obtaining a better understanding of students social, emotional, academic and transitional needs.

Academic Support Services

The Learning Center

Grades 9, 10, 11, 12

The Learning Center provides a wide-range of academic support to accommodate the students' varied needs. The teachers work with students clarifying assignments, reviewing content material, structuring and editing essays, supporting ELL students' language development, assisting with college and scholarship applications, and improving study habits and organizational skills. The center is a quiet, structured learning environment where students can work together or independently to complete their assignments. Helping students further develop their executive functioning skills is a major focus of the program. Student progress is closely monitored through PowerSchool. The Learning Center teachers communicate with classroom teachers, guidance counselors, and support staff on a regular basis. Students are expected to bring materials and assignments to class and remain on task. National Honor Society peer tutors are also available to provide additional support. Students can be scheduled into the Learning Center or drop-in during free periods or after school.

New Courses 2021 - 2022

Child Development and Parenting

Grade 10 - 12

2.5 credits

Would you like to learn more about children, but are having a difficult time fitting a one year course into your schedule? Would you like to explore the role of being an important person in a child's life? Would you like to learn more about how to support families? This is the perfect opportunity to learn more about child development, as well as parenting and caregiving roles in relation to the developing **child** and guiding them in the learning process. Join us for a highly engaging, hands-on, personalized look at children, how they grow and develop, and how parents and extended family members and/or friends help them grow into healthy young adults. Explore the various roles that adults play in children's development, learning, and personal family lives. This class is a great option for students who would like to explore child development or who are interested in having or working with children and families in the future.

CS2307Z Adulting with Technology

Grades 10, 11, 12

2.5 credits

Adulting with Technology will integrate aspects of culinary classes with career, financial literacy, relationship and health skills with the technology students are already using in their daily lives. Students will explore apps and free websites to find the best methods for managing their resources throughout their adult lives. Adulting with Technology is a semester course that allows students to participate in a variety of group and independent learning activities including, labs, simulations, guest speakers, and hands-on activities.

The following courses were offered last year, but did not run due to scheduling changes with Covid-19.

SS7806Z Gender & Society (Semester course) **credits**

Grades 11 & 12

2.5

This course will examine why gender equality is so important and yet so hard to achieve. The central aim is to foster critical reading and thinking about gender and the ways in which it is shaped by the interlocking systems of racism, sexism, ethnocentrism, heterosexism, ageism, ableism, colonialism and globalization; and how social movements have resisted these inequalities and worked to create new systems of change. We will scrutinize political, social and legal constructions of gender which continue to operate as though gender is binary, and explore a more inclusive approach which reflects a gender continuum within the context of entrenched power structures. Through understanding the construction of gender and its relationship with society, we will look for solutions to eradicate gender discrimination and gender-based violence.

PE7662Z A.M. Personal Fitness **Grades 10, 11, 12** **2.5 credits**

This course will meet from 7:30am-8:20am. This course offers instruction and practice in various fitness components such as cardiorespiratory endurance, muscular endurance, muscular strength, and flexibility. Activities include strength training, aerobic training, cardiorespiratory fitness, fitness games, yoga, nutrition, injury prevention and fitness testing. Personal training and fitness plan development are offered in this course.

PE7663Z A.M. Recreational Sports **Grade 10, 11, 12** **2.5 credits**

This course will meet from 7:30am-8:20am. Students in this course will participate in activities that are more individually based such as badminton, table tennis, tennis, etc. and activities that are team based but recreationally focused. (please note: the course meets during the 1st and 4th Quarter and is offered to Grade 10 and 11 only in Quarter 4).

PE7664Z Drugs and the Body **Grades 10, 11 and 12** **2.5 credits**

This course will dive deeper into the effects of drugs, both legal and illegal, and how they affect the body. The course will build off of the Grade 9 curriculum and offer a more in-depth look at their effects on the human body, behavior, psychology, and experience.

CS1923Z Creative Textile Design- Curriculum A **Grade 10, 11, 12** **2.5 credits**

Do you enjoy creative, hands-on classes? Want something to add to your fashion portfolio? Do you enjoy exploring color and design to create a custom wardrobe accessory? Then this semester long class is for you!! We'll be combining technology with traditional methods, such as knitting and weaving, working with a variety of fibers in creating your own fabric. Use the principles of design, color theory, and your newly learned skills to create your own textiles that can be made into something to suit your personalized wardrobe or home accessory.

English Language Arts

English classes are designed to foster clear thinking, thoughtful discussion, respectful collaboration, active listening and the improvement of student writing and reading. Each course provides opportunities for students to work with language-as readers, writers, and thinkers. Student writing will be kept in a portfolio to help students monitor their own progress.

Levels	AP	Curriculum H	Curriculum A	Heterogeneous
Grade 9		EN1105Z Foundations of English	EN1110Z Foundations of English	
Grade 10		EN2125Z Examining Expression	EN2120Z Examining Expression	
Grade 11	EN3000Z AP Language and Composition	EN3105Z American Literature	EN3110Z American Literature	EN7275Z Public Speaking
Grade 12	EN4000Z AP Literature and Composition	All Senior electives are offered as heterogeneous courses. <i>** Students have the option of earning Honors Credit through more challenging research and project work. Students</i>		EN4266Z Memoir, Poetry and Fiction: Creating Literary Forms

		<i>who are interested in earning Honors credit will inform the teacher in September.</i>		EN7281Z Missing Voices, Other Cultures EN4168Z Poetry as Art EN7275Z Public Speaking*
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*Please note these courses are offered at 2.5 credits and do not fulfill the English requirement for senior year.

- **Graduation Requirement:** All students must pass Four years of English in order to graduate.
- **Levels:** English courses are offered at two levels in the freshman and sophomore years. At the eleventh and twelfth grades, an Advanced Placement course is also offered. All students enrolled in AP courses must take the AP exam in May.
- **Curriculum H Level:** Honors classes require certain academic strengths and habits of mind. Students should demonstrate clear enjoyment of the written language as evidenced through a love of reading and writing; the student should be able to read challenging texts independently and write carefully considered essays with limited teacher direction. Students need to be able to reason abstractly and think symbolically, take responsibility for their learning, and appreciate their important role as members of a learning community.
- **Heterogeneous Courses (Grades 11 and 12 Electives):** Students can earn Honors credit in these courses through more challenging research and project work.
- **Entry Criteria for Grade 9 Honors English:** Primary among the considerations for entry into the ninth grade honors course is the recommendation of the eighth grade teacher. A student’s current teacher understands his or her academic strengths and unique learning style.
- **Grade 11 English Requirement:** American Literature is a required course for all juniors except those who select AP Language and Composition.
- **Grade 12 English Requirement:** A full year of English must be selected in Grade 12. Students who take more than one English course should carefully consider the reading and writing requirements of courses since all English courses require a serious time commitment.
- **Summer Reading:** All English courses have required summer reading. A complete list of the titles for each course will be available in June through school offices and online. Summer reading will be tested during the first full week of school in September.
- **Senior Electives:** With the exception of AP Language and Literature, all senior electives are heterogeneously grouped. Students may elect to earn honors credit in September.

English Grade 9

EN1105Z Foundations of English - Curriculum H

Grade 9

5 credits

EN1110Z Foundations of English - Curriculum A

Grade 9

5 credits

This course is designed to provide a foundation for success in the entire high school English program. To develop this foundation, students read classic and contemporary works, apply reading strategies, develop skills of literary analysis, and broaden their knowledge of literary terms. The course involves the close reading and discussion of major literary genres including poetry, nonfiction, drama, the short story, and the novel. Because this course is a study of communication in all its forms, students also critically assess information in non-traditional “texts,” such as online media, advertisements, and news articles. Students compose literary analyses and expository essays with a clear focus, logically related ideas, and supporting detail to uphold their arguments. In creative writing,

students work to develop a strong voice and to integrate literary elements, such as figurative language, characterization, and narrative structure. Students use their knowledge of the standard conventions of the English language to revise and edit their work. Students are encouraged to become active participants in the classroom through student-centered discussions and oral presentations. To foster a positive attitude toward learning and to support students as they assume responsibility for their progress, the course provides instruction in critical thinking, reading strategies, and effective study habits. Other emphases include grammar and vocabulary development.

Thematic Units Include:

- **Perception and Stereotypes**
 - *Monster*, Walter Dean Myers
 - *The House on Mango Street*, Sandra Cisneros
 - *Bean Trees*, Barbara Kingsolver
 - *The Penelopiad*, Margaret Atwood

- **Power and Fear**
 - *Lord of the Flies*, William Golding

- **Archetypes and Society**
 - *The Odyssey*, Homer
 - *The Penelopiad*, Margaret Atwood

- **Fate, Hubris and Reckless Behavior**
 - *Oedipus Rex*, Sophocles
 - *Romeo and Juliet*, William Shakespeare

English Grade 10

English 10: Examining Expression

EN2125Z Examining Expression - Curriculum H

Grade 10

5 credits

EN2120Z Examining Expression - Curriculum A

Grade 10

5 credits

English 10 is a full-year course developing skills gained in ninth grade. Students not only interpret fictional characters' experiences, but also examine and express their own beliefs and ideas through varied methods and media, including discussion. Students write creative pieces and evidence-based analytical essays; collaborate in order to reflect on their growth as writers and thinkers; and continue building vocabulary, learning grammar fundamentals, using technology, speaking publicly, and broadening their understanding of literary elements and genres. Additionally, students prepare for the English Language Arts MCAS exam by cultivating test-taking strategies. Authors we read in the tenth grade include but are not limited to Sophocles, Shakespeare, Jane Austen, Charles Dickens, Robert Louis Stevenson, Kate Chopin, Ray Bradbury, John Knowles, August Wilson, Arthur Miller, and Sherman Alexie.

English Grade 11

Students entering grade 11 may take one of the following year-long courses. All juniors will study both classic and contemporary works from the following list: *The Scarlet Letter*, *Adventures of Huckleberry Finn*, *Ethan Frome*, *The Great Gatsby*, *The Catcher in the Rye*, *Native Son*, *Their Eyes Were Watching God*, *Grapes of Wrath*, *Of Mice and Men*, *The Crucible*, *Plainsong*, *A Raisin in the Sun*, *Into the Wild*.

EN3000Z Advanced Placement Language and Composition AP Grade 11

5 credits

AP Language and Composition is intended for juniors who have demonstrated proficiency in composition and literary analysis and are ready to engage in college-level study of more sophisticated writing and effective rhetoric. Through thematic units the students will explore purpose and audience, the tools of effective argument, the elements of style, and the use (and misuse) of language. Through close analysis and synthesis of a variety of texts, students will develop their expository, analytical, and argumentative writing skills to address the essential question: *How does the study of rhetoric enable one to be a contributing citizen and a conscientious consumer?* While students will read novels of American literature, equal emphasis will be given to classic essays, speeches, political tracts, and literary criticism from such authors as Frederick Douglass, Deborah Tannen, Brent Staples, Richard Rodriguez, Annie Dillard, Perri Klass, Henry David Thoreau, Malcolm X, Martin Luther King, Amy Tan, George Orwell, and others. AP students will be expected to read deeply, prepare oral presentations and lead discussions. Portfolios allow students to reflect upon their accumulated work and establish individual writing goals. Grammar instruction, based mainly upon student writing, targets sentence complexity, variety, and precision. Students develop and strengthen their command of language through the study of vocabulary drawn from the texts read in class.

EN3105Z American Literature - Curriculum H

Grade 11

5 credits

EN3110Z American Literature - Curriculum A

Grade 11

5 credits

The English 11 full-year American Literature program is an exploration of major American writers from colonial times to the modern day. Students explore the essential questions “*What does it mean to be American?*” and “*How does the American Dream change over time?*” Specific themes include the transition from innocence to experience, the conflicts between the individual and society, the realization of a moral code, and the pursuit of happiness. Selected novels and plays from the list above are supplemented by short stories, poems, and essays. As readers, students are challenged to engage texts purposefully in order to make meaning, generate critical questions, observe connections among texts, and defend interpretations with relevant evidence. As writers, students focus on crafting and supporting original claims through organized, fluid, and unified essays. Portfolios allow students to reflect upon their accumulated work and establish individual writing goals. Grammar instruction, based mainly upon student writing, targets sentence complexity, variety, and precision. Students develop and strengthen their command of language through the study of vocabulary drawn from the texts read in class.

English Grade 12


In order to graduate, students must enroll in and pass a full year of senior English. In the fall, students will spend time on the composition of the college essay and review for the final administration of the SAT. All courses will include regular writing assignments and a variety of reading experiences.

EN4000Z AP Literature and Composition

Grade 12

5 credits

Advanced Placement Literature and Composition engages students in the careful reading and close textual analysis of complex, sophisticated and imaginative literature. By reading fully and deliberately, by noting how meaning is embedded in literary form, students are given the tools to strengthen their knowledge of literary analysis and to foster a deep appreciation of literature. The writing in this course challenges the student to argue ideas clearly, precisely and elegantly in essays of critical analysis. The assignments will be predominantly analytical and require students to demonstrate close reading of a text. Some works that will be studied include *Oedipus Rex*, *Heart of Darkness*, *Frankenstein*, a novel by Toni Morrison, the plays of William Shakespeare, and a rich variety of poetry from many cultures and time periods. Advanced Placement students are required to take the College Board's National Advanced Placement Test in May.

 **EN4266Z Memoir, Poetry and Fiction: Reading and Creating Literary Forms**


Grade 12

5 credits


Students in this course will have the opportunity to find their creative voices in three distinct areas. The college essay will begin a study of memoir; students will then study the short story, and finally poetry. In each case,

writing will be informed by both classic and contemporary literature. Memoirs by David Sedaris, Dave Eggers, Jeannette Walls; poetry by authors ranging from William Shakespeare to Robert Frost to Billy Collins; and short stories by Hemingway, Poe, Vonnegut, Chopin and many others will all give shape and texture to the literary forms that students will write. Students will create a writing portfolio as the culmination of the year's work.


** Students have the option of earning Honors Credit through more challenging research and project work.*

 **EN7281Z Missing Voices, Other Cultures** **Grade 12** **5 credits**
Literature often tells us about people whose lives are informed by the societies in which they live. Whether defined by race or culture, exclusion or inclusion, power or weakness, characters in literature can help us to see how society shapes both behavior and motivation. Students in this course will hear the voices of people who have had to work to be heard, whether it is because of gender, beliefs, family background, political realities, or other issues that have caused them to speak out as a means of defining themselves. Students will write regularly in this course; analytical essays, personal essays, and formal presentations will offer students opportunities to hone the writing skills they have been working on throughout their high school years.

** Students have the option of earning Honors Credit through more challenging research and project work.*

 **EN4168Z Poetry as Art** **Grade 12** **5 credits**
As one of the oldest art forms, poetry has become both a time-piece and a gallery of diverse expression. It has inspired and informed works ranging from Homer's classic epics to more contemporary forms such as rap and hip-hop. More importantly, perhaps, it is a representation of our own life rhythm. Seamus Heaney once wrote: "I rhyme to see myself. To set the darkness echoing." In an effort to find our own rhyme, we will explore poetry from its most basic roots to its more sophisticated forms. Instead of surveying poetry as a chronological timeline, we will bounce back and forth from the past to the present in order to discover how one has informed the other. Haikus and sonnets, ballads and slam poetry will all receive equal attention. Students will read, compose, and analyze poetry as an artisan might, by paying close attention to the process, the craft, and the history that informs our work. While the majority of the writing in this class will be creative in nature, students will occasionally write expository pieces about poems as well.

** Students have the option of earning Honors Credit through more challenging research and project work.*

 **EN7275Z Public Speaking (Semester Course)** **Grades 11-12** **2.5 credits**
Sharpening communication skills, which rests on the ability to 'stand and deliver,' promises academic and professional success for life. That remains the guiding belief of this course. In a relaxed, supportive environment, students identify and cultivate strategies to most effectively express themselves. In doing so, they discover their hidden voices and master proven techniques of informing, persuading, and motivating others. By choosing their own topics and acting on ongoing peer feedback, students come to celebrate their existing strengths as communicators while targeting focused areas for maximum improvement. In little time, all students reach heightened self-awareness, gain valuable confidence, and achieve distinct professionalism in the way they present themselves and their personal beliefs.

This course does not count towards the four year English requirement.

** Students have the option of earning Honors Credit through more challenging research and project work.*

English Learner Education (ELL)

The primary goal of the English Language Learner Program is to enable the English Language Learner to achieve communicative and linguistic competence in English and to perform in academic content classrooms with high expectations. The core classes are divided into three levels, Entering/Emerging (ELL 1), Developing/Expanding (ELL II), Expanding/Bridging (ELL III). At each level the four major aspects of language (speaking, listening, reading, and writing) will be mastered before moving to the next level. Students practice all language skills in English and learn essential vocabulary and background information to foster success in content areas across the

curriculum.

ENGLISH LANGUAGE LEARNER EDUCATION PLACEMENT HAS PREREQUISITES AND MUST GO THROUGH A PLACEMENT EXAM AND COMPLY WITH DEPARTMENT GUIDELINES

ESL Level	Required Language Class
ELL Level 1 - Entering/Emerging	EL01Z ELL Level 1 - Entering and Emerging
ELL Level II - Developing/Expanding	EL02Z ELL Level IIA - Developing and Expanding
ELL Level III - Expanding/Bridging	EL3002Z ELL III - Expanding/Bridging

ELL Level 1 - Entering/Emerging (Two blocks-full year) 10 credits

This course is designed for students with limited or no English language proficiency. All four areas of language acquisition are emphasized. Listening, speaking, reading, and writing in English are emphasized through content-based instruction and the teaching of learning strategies appropriate for students just learning English. The course is designed around theme-based literature instruction using authentic texts. Focus will also be given to helping beginning students understand the structure of the English language as they begin reading texts on their own.

ELL Level II - Developing/Expanding (One block-full year) 5 credits

This course is designed for students with early intermediate-intermediate English language proficiency. All four areas of second language acquisition are emphasized. Listening, speaking, reading, and writing are emphasized through content-based instruction and the teaching of learning strategies. The course is designed around theme-based literature instruction using authentic texts. Focus will also be given to helping students be more fluent in their reading and apply reading strategies to literature.

ELL III - Expanding/Bridging (One block-full year) 5 credits

This course is designed for students with advanced English language proficiency, in need of an additional year of English language development support in addition to an ELA course. All four areas of second language acquisition are emphasized. Listening, speaking, reading, and writing are emphasized through independent use of reading strategies to authentic literature and students own independent reading. This course is taken in conjunction with a grade appropriate English course.

Family and Consumer Sciences

All courses in the Department of Family and Consumer Sciences address standards in the following areas:

- Massachusetts Health Frameworks Standards
- Massachusetts Career Readiness Benchmarks
- Massachusetts Visual Arts Standards
- Massachusetts Vocational Technical Standards for Early Childhood Education
- Massachusetts Vocational Technical Standards for Culinary Arts
- National Standards for Family and Consumer Sciences
- National Personal Finance Standards

Family and Consumer Sciences is all about “learning for living.” We offer courses to help young men and women develop a variety of personal and career skills. Classes are in laboratory settings that provide opportunities for learning by demonstration, practical hands-on experiences, observation and discussion. These courses encourage accomplishment through work in small groups and individual projects. The skills learned in our classes will be useful to students now and throughout their lives.

Levels	Curriculum H	Heterogeneous
Grades 9-12		CS2241Z Early Childhood Education I CS1920Z Interior and Fashion Design I CS2305Z Culinary Arts and Hospitality I
Grades 10-12		CS2241Z Early Childhood Education I CS3243Z Early Childhood Education II CS#####Z Child Development and Parenting CS1920Z Interior and Fashion Design I CS2920Z Interior and Fashion Design II CS2305Z Culinary Arts and Hospitality I CS3305Z Culinary Arts and Hospitality II CS2315Z Bake Shop 101 (1 Semester) CS2318Z Cooking On Your Own CS2317Z Morning Eats: Breakfast and Brunch CS1923Z Creative Textile Design CS#####Z Adulting with Technology
Grades 11, 12	CS4241Z Early Childhood Education Practicum	CS2241Z Early Childhood Education I CS3243Z Early Childhood Education II CS#####Z Child Development and Parenting CS1920Z Interior and Fashion Design I CS2920Z Interior and Fashion Design II CS1923Z Creative Textile Design CS2305Z Culinary Arts and Hospitality I CS3305Z Culinary Arts and Hospitality II CS3405Z Culinary Arts and Hospitality III CS2315Z Bake Shop 101 (1 Semester) TE3930Z Introduction to Wood Technology CS2318Z Cooking On Your Own CS2317Z Morning Eats: Breakfast and Brunch CS#####Z Adulting with Technology
Grade 12	CS4241Z Early Childhood Education Practicum IN7699Z Capstone: Early Childhood	CS2241Z Early Childhood Education I CS3243Z Early Childhood Education II CS#####Z Child Development and Parenting CS1920Z Interior and Fashion Design I

	<p>Internship (5 credits)</p> <p>IN7799Z Capstone: Early Childhood Internship (10 credits)</p> <p>IN7750Z Early Childhood Education Practicum/Internship (5 credits)</p> <p>IN7751Z Early Childhood Practicum/Internship DB (10 credits)</p>	<p>CS2920Z Interior and Fashion Design II</p> <p>CS#####ZCS1923Z Creative Textile Design</p> <p>CS2305Z Culinary Arts and Hospitality I</p> <p>CS3305Z Culinary Arts and Hospitality II</p> <p>CS2318Z Cooking On Your Own</p> <p>CS2317Z Morning Eats: Breakfast and Brunch</p> <p>CS3405Z Culinary Arts and Hospitality III</p> <p>CS2315Z Bake Shop 101 (1 Semester)</p> <p>CS#####ZAdulting with Technology</p>
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Child Development Studies

These courses are designed for students interested in studying Early Childhood in college or pursuing careers working with young children such as early childhood or elementary school teachers, daycare providers, child psychologists, pediatricians, or social workers. These courses also benefit students who aspire to be a parent, aunt, or uncle. Students will learn about the development of children through a variety of classroom and preschool lab activities. Students will gain invaluable experience and insight into the roles of parents, teachers, and other professionals who work with young children.

Students who complete the course requirements for Early Childhood Education I, Early Childhood Education II, and Early Childhood Education Practicum and Internship may meet the requirements for EEC (Office for Early Education and Care) certification. This certification allows individuals to work in private early childhood programs as teachers. Students will be awarded a letter documenting their participation upon completion of requirements.

CS2241Z Early Childhood Education I

Grades 9, 10, 11, 12

5 credits

Although all students are welcome, this elective course is especially designed for students who are interested in pursuing careers in early childhood and elementary education and care or other fields working with children. Students study the development of children from birth to age 5 with a strong emphasis on early childhood curriculum and programs. There will be a focus on current research of brain development, different learning styles, and theories of development, teaching, and learning. The study of children will be accomplished through class readings and discussion, research projects, observations in early childhood programs, media presentations, and hands-on experience working with three and five year old children in Menotomy Preschool. Students apply their knowledge of developmentally appropriate activities for young children by planning, implementing, and evaluating activities for the preschool children in all curriculum areas.

CS3243Z Early Childhood Education II

Grades 10, 11, 12

5 credits

This challenging and rewarding class gives you the opportunity to begin working with children in Menotomy Preschool on a regular basis. You will write and implement lesson plans, create educational games, plan lessons for simple math, language arts, social studies and science concepts, explore music and movement activities, and develop creativity through art. You will apply the knowledge you learn directly with the children in the preschool on a regular basis.

Entry Criteria: Successful completion of Early Childhood Education I and Lead Teacher approval.

* *Students have the option of earning Honors Credit through more challenging research and project work.*

CS4241Z Early Childhood Education Practicum **Grades 11, 12** **5 credits**

This course is for students who have already taken Early Childhood Education I and II and are ready for considerable responsibility applying and practicing their teaching skills in the preschool on a regular basis. You will experience the fun and challenge of working with three to five year old children in the Menotomy Preschool Program as you become involved in all aspects of preschool teaching including planning and implementing activities with the children, interacting with them, and supervising and ensuring their safety. This course provides an invaluable opportunity for first-hand experience in teaching for those students who are planning to enter the field of childcare after high school or who will pursue a college degree in education or another child related field.

Entry Criteria: Successful completion of Early Childhood Education II and Lead Teacher approval.

** Students have the option of earning Honors Credit through more challenging research and project work.*

IN7699Z Early Childhood Education Internship **Grade 12** **5 credits**
IN7799Z Early Childhood Education Internship **Grade 12** **10 credits**

Students who have already completed three years of Early Childhood Education courses may choose to do an internship in an elementary school classroom. Students who enroll in this program will work out a school placement and a project plan with the ECE teacher in early fall and will then spend the school year working in an elementary or preschool classroom. Students will need flexibility in their schedule in order to schedule this internship around their other high school courses. 5 credits will be awarded to students completing 4 blocks per week of the internship, while 10 credits will be awarded to students completing 8 blocks per week.

Entry Criteria: Successful completion of Early Childhood Education I, Early Childhood Education II, and Early Childhood Practicum, as well as teacher approval.

IN7750Z Early Childhood Practicum/Internship **Grade 12** **5 credits**
IN7751Z Early Childhood Practicum/Internship DB **Grade 12** **10 credits**

This course is designed for Seniors who were unable to participate in all four years of the Early Childhood Education Program, but who would like to participate in an internship at Menotomy Preschool, one of the Arlington Public Schools elementary classrooms, or a teacher approved community preschool or daycare. The course is designed to be a combination of the Early Childhood Practicum coursework and Early Childhood Education Internship. 5 credits will be awarded to students completing 4 blocks per week of the internship, while 10 credits will be awarded to students completing 8 blocks per week. **Please Note:** *Students must have pre-approval from the program instructor and Family and Consumer Sciences Lead-teacher. Students who participate in this course will not be eligible for certification with the Massachusetts Office of Early Childhood and Care*

Child Development and Parenting **Grade 10 - 12** **2.5 credits**

Would you like to learn more about children, but are having a difficult time fitting a one year course into your schedule? Would you like to explore the role of being an important person in a child's life? Would you like to learn more about how to support families? This is the perfect opportunity to learn more about child development, as well as parenting and caregiving roles in relation to the developing **child** and guiding them in the learning process. Join us for a highly engaging, hands-on, personalized look at children, how they grow and develop, and how parents and extended family members and/or friends help them grow into healthy young adults. Explore the various roles that adults play in children's development, learning, and personal family lives. This class is a great option for students who would like to explore child development or who are interested in having or working with children and families in the future.

Foods, Hospitality, and Tourism Career Paths

The exciting worlds of hospitality and tourism are two of the fastest growing and most exciting industries in the world today. This encompasses more than 15 related industries including food service, travel, tourism, and lodging services. This program will give students the opportunity to explore and research the career paths

available and participate in shadow programs for a first-hand look at what the professionals in these industries actually do on the job. Students will be given a broad overview of these career paths in the grade 9 course. In the following years, students will have the option of concentrating their studies in a specific related career path.

CS2305Z Culinary Arts and Hospitality I

Grades 9, 10, 11, 12

5 credits

In this course, you will learn food preparation skills for both home and in the hospitality industry. Explore the wide range of career and business opportunities available in this billion dollar industry. Through foods labs, a variety of hands-on activities, discussions, field trips, guest speakers, readings, and research projects. Learn how to prepare healthy foods, fun menus, arranging trips, planning events, and comparing features of all areas of the hospitality and tourism industry. Walk out of this class with the skills necessary to get an entry level job in the field and find out what this industry can offer you as you consider your future career options. In addition, the foods and nutrition units of this course provide opportunities for students to develop skills in food preparation techniques, meal planning, consumerism, and nutrition planning. Students will be evaluated through a variety of foods labs, hands-on activities, projects, presentations, demonstrations, and lab experiences to demonstrate their understanding of culinary and nutrition concepts.

CS3305Z Culinary Arts and Hospitality II

Grades 10, 11, 12

5 credits

This elective course is for students who have taken Culinary Arts and Hospitality I and are interested in pursuing a career in the hospitality field. There will continue to be a focus on the wide range of career and business opportunities available in this field, with a concentration on marketing, planning and research in the hospitality and tourism industry. Students will engage in product development, learn to prepare some recipes in the production method style, and will analyze nutritional content of foods and recipes through the use of technology. Students will be evaluated through a variety of foods labs, hands-on activities, projects, presentations, demonstrations, and lab experiences to demonstrate their understanding of culinary and nutrition concepts

Entry Criteria: Successful completion of Culinary Arts and Hospitality I

CS3405Z Culinary Arts and Hospitality III

Grades 11, 12

5 credits

Culinary Arts and Hospitality III is the third level of Culinary Arts and Hospitality at Arlington High School and prepares students for gainful employment and/or entry into post-secondary education in the food production and service industry. Content provides students the opportunity to acquire marketable skills by demonstrating the principles of safety and sanitation, food preparation skills, and advanced culinary skills. Part of this course will prepare the student to pass the test for ServSafe Certification as a Food Handler. Skills and content will be explored through a variety of hands-on activities, simulations, guest speakers, and field trips. We will also explore a variety of Culinary Arts Programs at the post-secondary level.

Entry Criteria: Successful completion of Culinary Arts and Hospitality I, Culinary Arts and Hospitality II, and teacher approval.

CS2315Z Bake Shop 101 (1 Semester)

Grades 10, 11, 12

2.5 credits

Do you love baking? Learn the basics and science of preparing while baking a variety of baked goods in our culinary labs. Learn how to "bake your own signature items" by tailoring ingredients to meet your tastes. For those students who are not able to fit in a full-year culinary course, this is a great opportunity to explore the art of baking in a one semester format. This baking course will provide opportunities to learn baking skills, by preparing a variety of baked goods; but will also provide opportunities for personalization and making connections between science and the art of baking. Students will develop a portfolio of their work and achievement of academic standards.

CS2317Z Morning Eats: Breakfast and Brunch (1 Semester) Grades 10, 11, 12

2.5 credits

Having a difficult time getting ready, eating, and getting to homeroom before the late bell? Join us to cook and learn more about the most important meal of the day, as well as strategies for fitting it in so you can have more energy, give a boost to your academics, and contribute to your personal health triangle. Research shows that

many people miss out on this very important meal of the day, including the Arlington Youth Risk Behavior Survey (YRBS). This is a great opportunity to learn how to plan and prepare a variety of traditional and updated breakfast and brunch recipes through our cooking labs, walking field trips, and engaging projects. We will also learn how to plan, prepare, and host a brunch. We will explore food preparation techniques, valuable menu planning skills, recipe resources, and how to personalize recipes for both personal taste and time. Students will be evaluated through a variety of activities, including cooking in the culinary labs, projects, and will leave class with a personalized cookbook of recipes and information that will be a valuable tool for now and when you live on your own.

Young Adult Living, Design, and Consumer Education

CS2318Z Cooking On Your Own (1 Semester)

Grades 10, 11, 12

2.5 credits

Do you only know how to cook Ramen and boxed mac and cheese? Is that how you're planning to survive college and your early adulthood? Join this class to learn how to plan, shop for, and cook fun, healthy, and inexpensive meals for you and your friends. Students will discover tips and tricks for surviving on their own. This is a great opportunity to learn how to plan and prepare a variety of foods in our cooking labs, walking field trips, and engaging projects. We will explore food preparation techniques, valuable menu planning skills, recipe resources, and how to personalize recipes for both personal taste and time. Basic Budgeting and financial responsibility will also be explored and practiced. Students will be evaluated through a variety of activities, including cooking in the culinary labs, projects, and will leave class with a personalized cookbook of recipes and information that will be a valuable tool for now and when you live on your own.

CS2307Z Adulting with Technology I

Grades 10, 11, 12

2.5 credits

Adulting with Technology will integrate aspects of culinary classes with career, financial literacy, relationship and health skills with the technology students are already using in their daily lives. Students will explore apps and free websites to find the best methods for managing their resources throughout their adult lives. Adulting with Technology is a semester course that allows students to participate in a variety of group and independent learning activities including, labs, simulations, guest speakers, and hands-on activities.

Interior and Fashion Design

Are you creative? Do you have a flair for design? Do you find yourself examining room designs and fashions and thinking of ways you would add your own creative touch? If you do, then [Interior Design](#) and [Fashion Design](#) are for you. Come explore color theory and the elements and principles of design as they apply to room interiors and fashion. Use your talents and skills to discover the designer in you. These courses are elected in tandem and can be elected for two years, the second year at an advanced level.

****Fashion and Interior Design Courses fulfill the
Fine Arts graduation requirements.****

CS1921Z Interior and Fashion Design I

Grades 9, 10, 11, 12

5 credits

The first half of this course enables students to explore their creativity in the field of Interior Design by focusing on color, the elements and principles of design, room arrangements and floorplanning. Students will gain an appreciation of the design fundamentals that form the foundation for which all design is judged. Opportunities for using computer aided design software will be available. Students will learn how to manipulate and apply the tools of design in a variety of situations in the home to create beautiful environments through hands-on projects, field trips, and guest speakers. The second half of this course will focus on fashion where students will develop an awareness of the role of clothing, textiles and fashion in our daily lives. They will learn about major fashion designers, how to create mood boards, and what equipment they will need in order to make clothes. -Students will

learn how to read a sewing pattern and what shapes of clothes suit certain body types as well as the historical significance of various silhouettes. They will explore the different career paths available to them in the fields of Interior and Fashion Design through field trips, guest speakers. Students will become familiar with the sewing machine through the creation of projects such as pillows, tote bags, and pajamas.

CS2921Z Interior and Fashion Design II **Grades 10, 11, 12** **5 credits**
 Students will apply more advanced design techniques through their study of color theory, trends, and costume and historical design. They will select some of their own creative projects and participate in creative community service assignments. Students will stay up to date on the fashion industry by learning about upcycling, famous designers, and fair industry practices. **Entry Criteria:** Successful completion of CS1920Z Interior and Fashion Design I.

CS1922Z Interior & Fashion III **Grades 11, 12** **5 credits**
 Students will apply more advanced design techniques, building upon the skills they learned in Interior & Fashion I and II. They will create a portfolio, designing a fashion line which will include inspirational research, a mood board, sketching, and selecting fabrics. Students will explore more advanced sewing techniques through their independent projects, as well as study various careers related to fashion, merchandising and design.
Entry Criteria: Successful completion of CS1920Z Interior and Fashion Design I, CS2921Z Interior and Fashion Design II, and Interior Fashion and Design teacher recommendation.

CS1923Z Creative Textile Design- Curriculum A **Grade 10, 11, 12** **2.5 credits**
 Do you enjoy creative, hands-on classes? Want something to add to your fashion portfolio? Do you enjoy exploring color and design to create a custom wardrobe accessory? Then this semester long class is for you!! We'll be combining technology with traditional methods, such as knitting and weaving, working with a variety of fibers in creating your own fabric. Use the principles of design, color theory, and your newly learned skills to create your own textiles that can be made into something to suit your personalized wardrobe or home accessory.

Makerspace Course Offerings

Levels		Heterogeneous
Grades 9-12		AC3610Z Art and Technology I Curriculum A AC3611Z Art and Technology II Curriculum A AC3602Z Sculptural and Functional Woodworking - Curriculum A
Grades 10-12		AC3613Z Woodworking II - Curriculum A AC3613Z Woodworking II - Curriculum A

INNOVATION AND DESIGN THINKING CERTIFICATE PROGRAM

PURPOSE AND RATIONALE

Advances in technology have lead to increasingly rapid changes at the beginning of the 21st century. The speed and impact of these advances have created a contemporary culture that values innovation and discovery. The idea of STEAM education has risen in recent years as a response to the need for preparing young people with the skills to be creators of technology and culture and not simply consumers. While a student may learn the content of

the individual disciplines of the STEAM acronym (Science, Technology, Engineering, Art and Math), grouping them together implies an interdisciplinary approach. Work on teaching problem solving and thinking skills for effective application of STEAM education has led to the concept of Design Thinking. Design Thinking encourages students to think deeply about a problem and to work collaboratively across disciplines to arrive at the best possible solution.

The AHS Innovation and Design Thinking Certificate is a program that students elect to participate in to foster the skills related to effectively applying their STEAM based skills and knowledge. Students will apply brainstorming and problem solving techniques to their project-based school work and document the process in a web based portfolio. The program will culminate in an independent project their senior year, overseen by an advisor, solving a real world problem that the student has identified. Students who meet the requirements will receive an AHS Innovation and Design Thinking credential on their transcript and be recognized for their focused interest and effort in STEAM related fields.

AC3610Z Art and Technology I Curriculum A **Grades 9, 10, 11, 12** **2.5 credits**

This is a studio class that explores the intersection of contemporary art and technology. Students will be introduced to tools including microcontrollers, robotics, 3D printers, and the laser cutter to create original art that responds to issues relevant to modern culture and their personal experiences. Art and Tech I will focus on both contemporary and historical artists and art forms, tool training, developing skills, and making meaning through art making. Collaborative projects will be encouraged. Art and Technology I and II can be taken consecutively to fulfill the 5-credit Fine Arts Graduation Requirement.

AC3611Z Art and Technology II Curriculum A **Grades 9, 10, 11, 12**
2.5 credits

This is a studio class that explores the intersection of contemporary art and technology. Students will be introduced to tools including microcontrollers, robotics, 3D printers, and the laser cutter to create original art that responds to issues relevant to modern culture and their personal experiences. Art and Tech II will also focus on both contemporary and historical artists and art forms, developing higher level skills, and making meaning through art making. Collaborative projects will be encouraged. Art and Tech II give students the opportunity to apply skills learned in Art and Technology I and to create personal artwork on a more independent basis. Art and Technology I and II can be taken consecutively to fulfill the 5-credit Fine Arts Graduation Requirement. **Prerequisite Art and Technology I**

AC3602Z Sculptural and Functional Woodworking - Curriculum A **Grades 9, 10, 11, 12** **5 credits**

Sculptural and Functional Woodworking is a yearlong class that cultivates students' skills related to designing and fabricating both functional and sculptural structures from wood. This class explores the relationship between functional and non-functional artworks through discussion and making. Students are introduced to relevant tools, skills, and projects that are presented in an open-ended way. This approach encourages creative problem solving and requires students to design and build one-of-a-kind objects. The projects are also presented in the context relevant to professional fields including carpentry, architecture, sculpture, and industrial design. **This course fulfills the 5-credit Fine Arts Graduation Requirement. (Formerly called Wood Tech)**

AC3613Z Woodworking II - Curriculum A **Grades 10, 11, 12** **5 credits**

Woodworking II is a yearlong class for students who have completed Woodworking I and are interested in further developing their skills. The assignments will include problem solving and completing building projects in the AHS community as well as creating original work. Permission of the instructor is required. **Prerequisite: Wood Tech or Sculptural and Functional Woodworking**

DESIGN THINKING CERTIFICATE STUDENTS WILL

1. IDENTIFY PROBLEMS: Individuals who elect to participate will identify real world problems and arrive at solutions that are meaningful to themselves and helpful to others.
2. THINK CREATIVELY: Students will think deeply and solve problems in innovative ways to arrive at the best possible solution.
3. DEMONSTRATE PERSISTENCE: Participants will work through iterations of their projects and demonstrate design thinking skills related to identifying problems, building and testing prototypes, and problem solving.
4. WORK COLLABORATIVELY: Students will work as a cohort to bring expertise from across disciplines to their work.
5. DOCUMENT PROGRESS AND ACCOMPLISHMENTS: Students will create an online portfolio of related projects that illustrates planning, process, and outcomes, and complete a final independent faculty reviewed project.

REQUIREMENTS

The Innovation and Design Thinking Certificate program is intended to be a two year commitment for individuals in their junior and senior year who want to focus their effort, work collaboratively with like minded people, and be challenged to take their school work to a higher level.

HISTORY & SOCIAL SCIENCES

In Arlington Public Schools, teachers seek to engage students in the study of history and social studies through authentic instruction: having students experience history through interactive, real-life based activities, perspective-taking, and a critical analysis of history that makes connections to today's society. As part of their study of history, we also look to develop students' research, critical thinking, and writing skills as well as modeling and cultivating their ability to engage in civil discourse, leading students to be prepared to become active members of the society they live in.

Required Courses:

All students must take and pass Modern World History and United States History 1 and 2 in order to graduate from Arlington High School. AP US History may take the place of United States History 2.

Levels	Curriculum A	Honors/Advanced Placement
Grade 9	SS1110Z Modern World History	SS1105Z Modern World History
Grade 10	SS2210Z United States History I	SS2105Z United States History I
Grade 11	SS3110Z United States History II	SS4000Z US History AP OR SS3105Z US History II H

The following link may be helpful when determining if Honors History is correct level for your student:

["What Does It Mean to Take Honors History?" and "Sample Honors History Work"](#)

History Requirement - Grade 9

SS1110Z Modern World History - Curriculum A	Grade 9	5 credits
SS1105Z Modern World History - Curriculum H	Grade 9	5 credits

In this course, students study major historical events in World History from the 1700s to the present. We will explore the French Revolution and Napoleon, the Industrial Revolution, Imperialism, Nationalism, World War I and the Russian Revolution, the Interwar Years and Rise of Totalitarianism, World War II and the Holocaust, the Cold War, and colonial independence movements. We will also incorporate discussions of current events that connect to eras of the past.

NOTE: Students choosing to take this course at the honors level will be responsible for completing a summer assignment due within the first week of school.

History Requirement - Grade 10

SS2210Z United States History 1 - Curriculum A	Grade 10	5 credits
SS2105Z United States History 1 - Honors	Grade 10	5 credits

United States History 1 asks students to study the historical foundations of America and make connections to how the U.S. became the country that it is today. This is done in order to help students become more informed citizens of the country they live in. Students will examine the 13 Colonies, American Revolution, U.S. Constitution, early American presidencies, the Civil War and Reconstruction. Throughout their study of early U.S. history, students will consider recurring political, social, economic, military, and cultural themes.

NOTE: Students choosing to take this course at the honors level will be responsible for completing a summer assignment due within the first week of school.

History Requirement - Grade 11

SS3110Z United States History 2 - Curriculum A	Grade 11	5 credits
SS3105Z United States History 2 - Honors	Grade 11	5 credits

In United States History 2, students will study major events and themes in modern American history. Topics include immigration, industrialization and urbanization, American imperialism, Progressivism, World War 1, the Great Depression, World War 2, the Cold War, the Civil Rights Movement, the Vietnam War and contemporary events in U.S. history.

SS4000Z AP United States History AP	Grade 11	5 credits
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The A.P. U.S. History course focuses on developing student's understanding of American history from approximately 1491 to the present. The course has students investigate the content of U.S. History for significant events, individuals, developments, and processes in nine historical periods and develop and use the same thinking skills and methods (analyzing primary and secondary sources, making historical comparisons, chronological reasoning, and argumentation) employed by historians when they study the past. The course also provides seven themes (American and national identity; migration and settlement; politics and power; work, exchange, and technology; America in the world; geography and the environment; and culture and society) that students explore throughout the course in order to make connections among historical developments in different times and places. AP U.S. History is designed to be the equivalent of a two-semester introductory college or university U.S. History course.

Students selecting the AP US History course must take the College Board AP US History exam in May in order to receive AP credit for the class.

NOTE: Students choosing to take this AP level course will be responsible for completing a summer assignment and will be assessed within the first week of school.

HISTORY & SOCIAL SCIENCES ELECTIVE OFFERINGS:

Levels	Advanced Placement	Heterogeneous (all semester courses)
Open to Grades 10, 11, 12	SS7804Z AP Human Geography (full year)	SS7298Z American Law SS7386Z American Pop Culture SS7167Z Psychology and Human Behavior SS7390Z Social History Through Sports
Open to Grades 11 & 12 ONLY	SS4400Z AP European History (full year) SS7000Z AP Psychology (full year) SS7802Z AP United States Government and Politics (full year) SS7293Z The Economics of Personal Finance (Dual Enrollment with Syracuse) (semester) SS7196Z Economic Ideas and Policy (Dual Enrollment with Syracuse) (semester)	SS7295Z Intro to Economics SS7280Z Race, Society, and Identity SS7154Z Current Issues: America and the World SS7806Z Gender & Society

SS7804Z AP Human Geography

Grades 10, 11, 12

5 credits

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

NOTE: Students choosing to take this AP level course will be responsible for completing a summer assignment and will be assessed within the first week of school.

SS7802Z AP United States Government and Politics

Grades 11, 12

5 credits

U.S. Government and Politics is the study of the United States national government's policies, institutions, and foundations. Topics include, constitutional theories forming the basis of government, political beliefs and behaviors, political parties, interest groups, and the mass media, the Congress, presidency, bureaucracy, and Federal court system, public policy, and civil rights and civil liberties. This course gives students an analytical perspective on American government and politics that prepares them to take the AP U.S. Government and Politics exam. The course is a rigorous, intensive, and is taught with college-level texts. Students will be required to take the AP Exam in May.

NOTE: Students choosing to take this AP level course will be responsible for completing a summer assignment and will be assessed within the first week of school.

SS4400Z AP European History AP

Grades 11, 12

5 credits

Advanced Placement Modern European History is a full-year course focusing on European history from the

Renaissance to the present. Coursework includes analysis of historical documents, essay writing, student-centered activities and simulations, and writing document-based questions. This course is designed to prepare students for the Advanced Placement Modern European History Exam by making demands upon them equivalent to that of an introductory college course. Highly motivated, independent learners who have a strong interest in European history should take this course. Students will be required to take the AP Exam in May.

NOTE: Students choosing to take this AP level course will be responsible for completing a summer assignment and will be assessed within the first week of school.

SS700Z AP Psychology

Grades 11, 12

5 credits

Advanced Placement Psychology is a full-year course that is the equivalent to a one-semester introductory college course in psychology. This course will give students a better understanding of why people think and behave as they do. AP Psychology will introduce students to the discipline of psychology as a science, the different theoretical explanations of behavior, contemporary research methods used by psychologists, biological bases of behavior, personality, disorders and therapeutic processes, memory, thinking and learning, developmental and social psychology. Students will be required to take the AP examination in May. **Note: this course may be taken by 11th grade students in addition to AP US History or US History II, but not instead of AP US History or US History II.**

NOTE: Students choosing to take this AP level course will be responsible for completing a summer assignment and will be assessed within the first week of school.

SS7293Z The Economics of Personal Finance

Grades 11, 12

2.5 credits

The world of personal finance can be overwhelming. From credit cards to mortgages and more, Personal Finance is here to explain the essential information you need to know to make financially smart decisions for the rest of your life. This Introduction to Personal Finance focuses on the foundations of financial planning—such as setting short-term and long-term financial goals—and then tackles essential aspects of consumer personal finance, including record keeping, budgeting, banking, saving, borrowing, investing, insurance, taxes, and retirement planning. By the end, you will feel more confident about making informed and reasoned financial choices with regard to your professional and personal lives. Your bank account will thank you later. This is a college course offered on-site at Arlington High School through a partnership with Syracuse University. All students taking the one semester class will receive a grade at the AP weight for the course on their Arlington High transcript. Additionally, students may opt to pay a nominal fee of \$336 for three SU credits. Students on free/reduced lunches can take the course for credit at a greatly reduced fee (See History Dept Head Denny Conklin). Typically, colleges will accept the Syracuse credits with a grade for transfer credit.

SS7196Z Economic Ideas and Policy

Grades 11, 12

2.5 credits

(AP weighting & Syracuse University dual enrollment)

Students will undertake an in depth study of micro and macro economics. In microeconomics students will analyze why people make choices, the market coordination that occurs due to individual choices, market issues that arise due to individual choice, and the potential need for government involvement in the economy. With this foundation in place, the students will examine macro economics, in which they will consider the potential options the government may use to intervene in the market. Finally the students will partake in a global study in which they learn the potential positives and negatives of free trade. This is a college course offered on-site at Arlington High School through a partnership with Syracuse University. All students taking the one semester class will receive a grade at the AP weight for the course on their Arlington High transcript. Additionally, students may opt to pay a nominal fee of \$336 for three SU credits. Students on free/reduced lunches can take the course for credit at a greatly reduced fee (See History Dept Head Denny Conklin). Typically, colleges will accept the Syracuse credits with a grade for transfer credit.

SS7298Z American Law (Semester course)

Grades 10, 11, 12

2.5 credits

This course examines criminal, civil, and constitutional law. Major emphasis is placed upon understanding one's

legal rights and responsibilities both inside and outside of school. The specialized areas of criminal justice and the court system receive considerable attention and provide students with a general knowledge of their rights and civic duties. Debate, discussion and mock trials will be heavily utilized to examine current legal issues and important court cases. Topics include homicide, conflict resolution, search and seizure, race and gender discrimination, and property crimes.

** Students have the option of earning Honors Credit through more challenging research and project work.*

 **SS7386Z American Popular Culture (Semester course) Grades 10, 11,12 2.5 credits**


What does popular mean? How does someone or something become popular? Students in this course will examine these questions in the context of American culture. We are surrounded by popular culture and it influences how we think, feel, and live. Students will use a variety of cultural products, such as music, movies, television shows, sports, fashion trends, comic books, magazines, and social networks, to explore what has defined American popular culture over time and the role that popular culture plays in their lives today. Students will complete reviews on different types of media, projects, short essays and reflections, as well as research on elements of pop culture.

**Students have the option of earning Honors Credit through more challenging research and project work.*

 **SS7154Z Current Issues: America & the World Grades 11, 12 2.5 credits (Semester course)**

Students will study important problems facing the global community and will conduct in-depth research and analysis of these topics. Half of the course will focus on domestic issues, such as, U.S. Gun Policy/Gun Control, National Politics, Criminal Justice Reform, Income/Wealth Inequality, among others. The other half of the course will be devoted to foreign issues, with primary focus being on U.S. regional foreign policy. Classroom activities will include class discussions, collaborative activities, individual projects, and Skype sessions with experts in key areas being studied. Assessments will take the form of writing assignments, which include formal papers and opinion pieces, as well as projects.

** Students have the option of earning Honors Credit through more challenging research and project work.*

 **SS7806Z Gender & Society (Semester course) Grades 11, 12 2.5 credits**

This course will examine why gender equality is so important and yet so hard to achieve. The central aim is to foster critical reading and thinking about gender and the ways in which it is shaped by the interlocking systems of racism, sexism, ethnocentrism, heterosexism, ageism, ableism, colonialism and globalization; and how social movements have resisted these inequalities and worked to create new systems of change. We will scrutinize political, social and legal constructions of gender which continue to operate as though gender is binary, and explore a more inclusive approach which reflects a gender continuum within the context of entrenched power structures. Through understanding the construction of gender and its relationship with society, we will look for solutions to eradicate gender discrimination and gender-based violence.

SS7295Z Introduction to Economics (Semester Course) Grades 11, 12 2.5 credits

Students will engage in a study of basic micro and macro economic principles to enhance their understanding of capitalism to help them become strong citizens and make astute financial decisions. In particular, they will examine the powers of the Federal Reserve and federal government as well as scrutinize the economic theories employed by Democratic and the Republican parties. Then the students will create a business to enhance their understanding of microeconomic concepts. The class concludes with an examination of the role of the consumer; here students learn personal finance life skills such as making a budget, learning wise shopping strategies, learning how to achieve a strong credit score, how to avoid credit card debt, and how to save for retirement.

**Students have the option of earning Honors Credit through more challenging research and project work.*


 **SS7167Z Psychology & Human Behavior**
(Semester course)

Grades 10, 11,12

2.5 credits

This class pulls together the most important and applicable concepts from the fields of psychology, neuroscience, behavioral economics, and evolutionary biology. Students will walk away with practical knowledge they can use in their own lives. In the past few decades, we have learned a huge amount about the human mind. So many vital things in life — the way we behave, the way we organize ourselves, our attitudes and beliefs, our ability to solve hard problems — are connected to it. The more we understand about these concepts, the more we can become authors of our own lives.

** Students have the option of earning Honors Credit through more challenging research and project work.*

 **SS7280Z Race, Society, and Identity**

Grades 11, 12

2.5 credits

In this course students will critically analyze the construction of Race and the effects it has had on American society through a seminar style approach with hands-on projects. The course starts with an understanding of the self, from which an understanding of modern racial context is then sought. Throughout the course of this class we will go over various case studies in order to shed light on the deeply rooted history of racial discrimination and violence in this country that continues to be prevalent today. Towards the end of the course our focus will shift towards learning contemporary theory around Race and empowering students to act against those issues in meaningful ways.

** Students have the option of earning Honors Credit through more challenging research and project work.*

 **SS7390Z Social History Through Sports**
(Semester course)

Grades 10, 11, 12

2.5 credits

Students will be examine historical social issues such as race, gender, political unrest, war, and religion through the lens of sports. The course will utilize a case study approach to give students a detailed sense of the historical time period, the social issue, its relationship to a specific sport, and the legacy of the social issue/sport the continues through today. Possible topics include: breaking the color barrier (baseball), religious rights and war (boxing), racial bias & the judicial system (football), gender inequality (tennis), labor unions and strikes (baseball), and human rights (cricket and rugby). By the end of the course, students will see sports beyond fandom, competition, and athletic skill; rather they will understand how sports have functioned as both a reflection of social issues, but also a vehicle to move them forward.

** Students have the option of earning Honors Credit through more challenging research and project work.*

Mathematics

The course sequences in the chart below represent the traditional progression at each level. While students may take courses in any grade, they must follow the recommended sequence. For example, a student may take Algebra I as a senior or Calculus as a sophomore, depending upon preparation. However, **students must complete Algebra I, Geometry, and Algebra II, or their equivalent, before advancing to other math courses.** Note that the courses listed under “Electives” do not satisfy mathematics distribution graduation requirements.

Levels	Curriculum H or AP	Curriculum A	Curriculum B
Grade 9	MA1105Z Geometry - Cur. H	MA1215Z Algebra I - Cur. A MA2215Z Geometry - Cur. A	MA1210Z Pre-Algebra - Cur. B

Grade 10	MA2105Z Algebra II - Cur. H	MA2215Z Geometry - Cur. A MA3215Z Algebra II - Cur. A	
Grade 11	MA3105Z Pre-Calculus - Cur. H MA4100Z AP Statistics	MA3215Z Algebra II - Cur. A MA3110Z Pre-Calculus - Cur. A	MA3321Z Algebra II - Cur. B
Grade 12	MA4000Z AP Calculus AB MA4005Z AP Calculus BC MA4105Z Calculus - Cur. H MA4100Z AP Statistics	MA3110Z Pre-Calculus - Cur. A MA4125Z Statistics - Cur. A MA4315Z Quantitative Reasoning - Cur. A	MA3321Z Algebra II - Cur. B
Grade 11 & 12	MA5002Z Linear Algebra MA5003Z Introduction to Number Theory		

Pre-Algebra

MA1210Z Pre-Algebra - Curriculum B

Grades 9, 10, 11, 12

5 credits

Pre-Algebra Curriculum B focuses on four critical areas: (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three- dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.

Students extend their understanding of ratios and develop understanding of proportionality to solve single- and multi-step problems. Students use their understanding of ratios and proportionality to solve a wide variety of percent problems, including those involving discounts, interest, taxes, tips, and percent increase or decrease. Students solve problems about scale drawings by relating corresponding lengths between the objects or by using the fact that relationships of lengths within an object are preserved in similar objects. Students graph proportional relationships and understand the unit rate informally as a measure of the steepness of the related line, called the slope. They distinguish proportional relationships from other relationships.

All students will engage in mathematical practices such as reasoning abstractly and quantitatively, looking for and expressing regularity in repeated reasoning, and looking for and making use of structure.

Suggested Entry Criteria: Understand basic arithmetic.

Next Course: Algebra I Curriculum A

Algebra I

MA1215Z Algebra I - Curriculum A

Grades 9, 10, 11, 12

5 credits

Algebra I Curriculum A is the first course in a four-year college preparatory sequence. This course addresses the standards of the current state framework with major emphasis on the Algebra domain and the Functions domain. Students will investigate patterns, relations, and functions, simplify polynomials, and solve linear and quadratic equations, inequalities, and systems of equations. Students will also study powers and roots in accordance with standards from the Number and Quantity domain. Content areas including scatter plot, line of best fit, and basic

counting principles connect to the Statistics and Probability domain. The Geometry domain is addressed in the work done in the coordinate plane.

Suggested Entry Criteria: Understand the concepts and skills of Math 8 or equivalent.

Next Course: Geometry Curriculum A or Geometry Curriculum H.

Geometry

MA1105Z Geometry - Curriculum H

Grades 9, 10

5 credits

Geometry Curriculum H is the first course in a four-year honors sequence. The students demonstrate higher order thinking skills in solving non-routine problems, and in discovering and writing inductive, deductive, indirect, and coordinate proofs. This accelerated course addresses the requirements of the current state framework, with major emphasis on the Geometry domain. Major content areas from this domain include the study of angles, polygons, polyhedrons, and circles, recognizing and applying properties of similarity and congruence, calculating measurements, and demonstrating and applying transformations. Students will also identify and apply trigonometric ratios and the Pythagorean theorem. The Statistics and Probability domain is addressed as students determine sample spaces using counting principles to find probability. Additionally, all students will participate in the year-long Math Fair project. The focus for Geometry students will be research skills and presentation skills.

Suggested Entry Criteria: Mastery of the concepts and skills of Algebra I.

Next course: Algebra II Curriculum H or Algebra II Curriculum A.

MA2215Z Geometry - Curriculum A

Grades 9, 10, 11, 12

5 credits

Geometry Curriculum A is the second course in a four-year college preparatory sequence. This course addresses the requirements of the current state framework with major emphasis on the Geometry domain. In the content standards of this domain, students study a full geometry curriculum. Major content areas include the study of lines, angles, polygons, circles, and congruence and similarity relationships. Students apply area and volume formulas to solve problems as well as use inductive and deductive reasoning processes to justify conclusions. Students will also work in the coordinate plane with transformations, distance and midpoint formulas, and parallel and perpendicular lines. The Number and Quantity domain is addressed as students work with powers and roots and use estimation in problem solving. Students use sample spaces to find simple probabilities, which is consistent with the standards of the Statistics and Probability domain.

Suggested Entry Criteria: Successful completion of Algebra I.

Next course: Algebra II Curriculum H or Algebra II Curriculum A.

Algebra II

MA2105Z Algebra II - Curriculum H

Grades 10, 11, 12

5 credits

Algebra II Curriculum H is the second course in a four-year honors mathematics sequence. Students continue to demonstrate higher order thinking skills by applying concepts to challenging problems and 'real-world' problems. This honors course addresses the current state framework with emphasis on the Algebra domain and Functions domain. Consistent with the content standards of these domains, students expand their knowledge of functions to include exponential, logarithmic, trigonometric, and polynomial functions using discrete and recursive models. They will expand their knowledge of equation solving to include multiple methods of solving quadratics, linear systems in three variables, and linear programming problems. The Number and Quantity domain is addressed as students study complex numbers and finite graphs, extend the real number system to rational exponents, and study its structure and properties. Students work in the coordinate plane studying quadratic relationships as they address the standards of the Geometry domain. The standards in the Statistics and Probability domain are addressed as students interpret data to find a model to fit the data. **A TI-83+or TI-84 graphing calculator or equivalent is required.** Additionally, all students will participate in the year-long Math Fair project. The focus for Algebra II students will be conjectures and proofs.

Suggested Entry Criteria: Mastery of the concepts and skills of Geometry.

Next course: Pre-Calculus Curriculum H, Pre-Calculus Curriculum A, Statistics Curriculum A, or AP Statistics.

MA3215Z Algebra II - Curriculum A

Grades 10, 11, 12

5 credits

Algebra II Curriculum A is the third course in a four-year college preparatory sequence that further develops and strengthens the concepts and skills of Algebra I and extends these concepts and skills into the traditional topics of Algebra II. The course is aligned with the current state framework and primarily focuses on the Algebra domain and the Functions domain. The topics emphasized include linear, quadratic, and exponential functions, graphs, inequalities, polynomials, rational expressions, systems of equations, graph translations, radicals, and an introduction to complex numbers. Students apply their knowledge in problem solving applications. Technology is integrated into the course to support problem solving. **A TI-83+ or TI-84 graphing calculator or equivalent is highly recommended.**

Suggested Entry Criteria: Successful completion of Geometry.

Next Course: Pre-Calculus Curriculum H, Pre-Calculus Curriculum A, Statistics Curriculum A, or AP Statistics.

MA3321Z Algebra II - Curriculum B

Grades 10, 11, 12

5 credits

Algebra II Curriculum B is the third course in a four-year modified college preparatory sequence in Algebra that further develops and strengthens the concepts and skills of Algebra 1 and extends these concepts and skills into the traditional topics of Algebra 2. The course is aligned with the current state framework and focuses on the Algebra domain and the Functions domain. The topics emphasized include linear, quadratic, and exponential functions, graphs, inequalities, polynomials, rational expressions, systems of equations, graph translations, radicals, and an introduction to complex numbers. Students apply their knowledge in problem solving applications. Technology is integrated into the course to support problem solving. **A TI-83+ or TI-84 graphing calculator or equivalent is highly recommended.**

Suggested Entry Criteria: Successful completion of Geometry.

Next Course: Pre-Calculus Curriculum A, Statistics Curriculum A, or Quantitative Reasoning Curriculum B.

Pre-Calculus

MA3105Z Pre-Calculus - Curriculum H

Grades 11, 12

5 credits

Pre-Calculus Curriculum H is the third course in a four-year honors mathematics sequence. It is a rigorous course focusing on mathematical relations and their graphs, inverses, and applications. Topics studied include polynomial, trigonometric, exponential and logarithmic functions, matrices, polar coordinates, complex numbers, sequences, series and conics (and as time permits, combinations, permutations, probability and statistics.) The course is designed to emphasize theory and mathematical structure. Students will be invited to participate in the Competitive Math Exam Program of the Math Department, taking both the Math Olympiad and the AMC Exams. Students will be prepared to take the SAT II, Math Level 2 College Board Achievement exam in June. **A TI-83+ or TI-84 graphing calculator or equivalent is required.** Additionally, all students will participate in the year-long Math Fair project. Students will have the freedom to choose their own area of exploration for the project.

Suggested Entry Criteria: Mastery of the concept and skills of Algebra II.

Next Course: AP Calculus BC, AP Calculus AB, Calculus Curriculum H, AP Statistics, or Statistics Curriculum A.

MA3110Z Pre-Calculus - Curriculum A

Grades 11, 12

5 credits

Pre-Calculus Curriculum A addresses the same topics as Pre-Calculus Curriculum H at a modified level of rigor. Topics studied include polynomial, trigonometric, exponential and logarithmic functions, matrices, polar coordinates, complex numbers, sequences, series and conics. **A TI-83+ or TI-84 graphing calculator or equivalent is highly recommended.**

Suggested Entry Criteria: Mastery of the concepts and skills of Algebra II.

Next Course: AP Calculus AB, Calculus Curriculum H, AP Statistics, Statistics Curriculum A.

Calculus

MA4005Z AP Calculus BC**Grade 12****5 credits**

Calculus BC covers the BC syllabus set by the College Board as preparation for the Advanced Placement Test in Calculus. Calculus BC covers all of the topics in Calculus AB, as well additional material in differential equations, approximation using infinite series and a more advanced level of rigor. Calculus BC represents college-level mathematics for which most colleges grant advanced placement and/or credit. Most colleges and universities offer a sequence of several courses in calculus, and entering students are placed within this sequence according to the extent of their preparation. The content of Calculus BC is designed to allow students to receive credit for and placement beyond one full year of calculus at many colleges; however, college credit and placement decisions are made by individual colleges, based primarily on the student's score on the AP Calculus (BC) exam. Students are required to take the Advanced Placement Exam at the BC level (cost approx. \$100) in May. In addition, students will be invited to participate in the competitive Math Exam Program of the Math Department, taking both the Math Olympiad and the AMC Exams. **A TI-83+ or TI-84 graphing calculator or equivalent is required.**

Suggested Entry Criteria: Mastery of the concepts and skills of Pre-Calculus Curriculum H.

MA4000Z AP Calculus AB**Grade 12****5 credits**

Calculus AB covers the AB syllabus set by the College Board as preparation for the Advanced Placement Test in Calculus. The content topics of this course include limits, continuity, derivatives; graph characteristics of a function and its first and second derivative equations, applications of derivatives, anti-differentiation, integrals, applications of integrals, and the fundamental theorem of calculus. Calculus AB represents college-level mathematics for which most colleges grant advanced placement and/or credit. Most colleges and universities offer a sequence of several courses in calculus, and entering students are placed within this sequence according to the extent of their preparation. The content of Calculus AB is designed to allow students to receive credit for and placement beyond one semester of calculus at many colleges; however, college credit and placement decisions are made by individual colleges, based primarily on the student's score on the AP Calculus (AB) exam. Students are required to take the Advanced Placement Exam at the AB level (cost approx. \$100) in May. In addition, students will be invited to participate in the competitive Math Exam Program of the Math Department, taking both the Math Olympiad and the AMC Exams. **A TI-83+ or TI-84 graphing calculator or equivalent is required.**

Suggested Entry Criteria: Mastery of the concepts and skills of Pre-Calculus.

MA4105Z Calculus - Curriculum H**Grade 12****5 credits**

Calculus Curriculum H completes the advanced sequence with an emphasis on functions, their derivatives and antiderivatives. Students are introduced to the basic topics in calculus, including limits, simple derivatives, and their applications to functions and problem solving. Applications of the derivative and integral are introduced throughout the course. **A TI-83+ or TI-84 graphing calculator or equivalent is highly recommended.**

Suggested Entry Criteria: Mastery of the concepts and skills of Pre-Calculus.

Statistics and Quantitative Reasoning**MA4100Z AP Statistics****Grade 11, 12****5 credits**

AP Statistics introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes:

- Exploring Data: Describing patterns and departures from patterns
- Sampling and Experimentation: Planning and conducting a study
- Anticipating Patterns: Exploring random phenomena using probability and simulation
- Statistical Inference: Estimating population parameters and testing hypotheses

The content of AP Statistics is designed to allow students to receive credit for and placement beyond one semester of introductory statistics at many colleges; however, college credit and placement decisions are made by individual colleges, based primarily on the student's score on the AP Statistics exam. Students are required to

take the Advanced Placement Exam in Statistics (cost approx. \$100) in May. **A TI-83+ or TI-84 graphing calculator or equivalent is required.**

Suggested Entry Criteria: The successful completion of Algebra II Curriculum A, at a minimum.

MA4125Z Statistics - Curriculum A

Grade 11, 12

5 credits

Statistics A is an introduction to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The level of rigor is reduced from that of the AP Statistics course. Students are exposed to three themes:

- Exploring Data: Describing patterns and departures from patterns
- Anticipating Patterns: Exploring random phenomena using probability and simulation
- Statistical Inference: Estimating population parameters and testing hypotheses

A TI-83+ or TI-84 graphing calculator or equivalent is highly recommended.

Suggested Entry Criteria: The successful completion of Algebra II Curriculum A.

MA4315Z Quantitative Reasoning - Curriculum A

Grade 11, 12

5 credits

Quantitative Reasoning A is a modified mathematics course that follows Algebra I, Geometry, and Algebra II. The course emphasizes probability, statistics and financial applications, and it prepares students to use algebra, geometry, recursively defined functions, and discrete mathematics to model a range of situations and solve problems. **The TI-83+ or TI-84 graphing calculator or equivalent is highly recommended. Suggested Entry Criteria:** Understand the concepts and skills of Algebra II.

Math Electives Beyond Algebra II

MA5002Z Linear Algebra - Curriculum H

Grades 11 and 12

2.5 credits

Linear algebra is the study of linear systems of equations, vector spaces, and linear transformations. Solving systems of linear equations is a basic tool of many mathematical procedures used for solving problems in science and engineering. In this class we will concentrate on the mathematical theory and methods of linear algebra. The student will become competent in solving linear equations, performing matrix algebra, calculating determinants, and finding eigenvalues and eigenvectors. On the theoretical side, the student will come to understand a matrix as a linear transformations relative to a basis of a vector space.

Suggested Entry Criteria: Algebra II or equivalent

MA5003Z Introduction to Number Theory - Curriculum H

Grades 11 and 12

2.5 credits

This is an introductory course in Number Theory for students interested in mathematics. The course begins with the basic notions of integers and sequences, divisibility, and mathematical induction. It also covers standard topics such as Prime Numbers; the Fundamental Theorem of Arithmetic; Euclidean Algorithm; the Diophantine Equations; Congruence Equations and their Applications (e.g. Fermat’s Little Theorem); Multiplicative Functions (e.g. Euler’s Phi Function); Application to Encryption and Decryption of Text.

Suggested Entry Criteria: Algebra II or equivalent

Project-Based Electives

Computer Science	Electives
	Full-Year Courses
	MA7414Z Honors Computer Science Principles (Grades 9-12)

	<p>MA7415 AP Computer Science Principles (Grades 10-12)</p> <p>MA7411Z AP Computer Science A (Grades 10-12)</p> <p>MA7419Z Computer Science Discoveries - Cur. A (Grades 9-12)</p> <p>Semester Courses</p> <p>MA7420Z Video Game Development - Honors (Grades 10-12)</p> <p>MA7421Z Advanced Robotics - Honors (Grades 10-12)</p> <p>MA7424Z Artificial Intelligence (A.I.) with Python - Honors (Grades 10-12)</p> <p>MA7518Z JavaScript and Web Development - Honors (Grades 10-12)</p> <p>IN9915Z Independent Study in Computer Science</p>
<p>Computer Aided Drafting and Design (C.A.D.D.)</p>	<p>C.A.D.D. is offered as a heterogeneous course.</p> <p>Students have the option of earning honors credit through more challenging research and project work. Students who are interested in earning honors credit will inform the teacher in September.</p> <p>Full-Year Course MA7287Z C.A.D.D. 1</p> <p>Semester Courses MA7274Z C.A.D.D. 2.1 MA7276Z C.A.D.D. 2.2</p> <p>MA7279Z C.A.D.D. 3.1 MA7281Z C.A.D.D. 3.2</p> <p>MA7283Z C.A.D.D. 4.1 MA7285Z C.A.D.D. 4.2</p> <p>MA7246Z Intro to 3D Printing</p>

The following electives are offered within the Mathematics Department. While offered as listings in the Mathematics Department, taking these electives does not satisfy mathematics distribution graduation requirements.

Computer Aided Drafting and Design (C.A.D.D.)

MA7251Z C.A.D.D. 1	Grades 9-12	5 credits
MA7262Z C.A.D.D. 2.1	Grades 10-12	2.5 credits
MA7268Z C.A.D.D. 2.2	Grades 10-12	2.5 credits
MA7263Z C.A.D.D. 3.1	Grades 11-12	2.5 credits
MA7269Z C.A.D.D. 3.2	Grades 11-12	2.5 credits
MA7264Z C.A.D.D. 4.1	Grade 12	2.5 credits
MA7270Z C.A.D.D. 4.2	Grade 12	2.5 credits

C.A.D.D. is being offered as an elective within the Mathematics Department for all students, grades 9–12. C.A.D.D. will be offered at either the Curriculum A or Honors level. Students must declare the level of their course by the designated deadline. Some colleges, such as Middlesex Community College, may accept the class for college credit

C.A.D.D. is offered as a full year course only in C.A.D.D. 1. In subsequent years, C.A.D.D. will be offered as a semester course that should be enrolled in a sequential order. For example, C.A.D.D. 2.2 will be a prerequisite to C.A.D.D. 3.1

This course will offer students an opportunity to explore the world of architectural, civil, mechanical, Industrial and drafting and design. The students will use the following software: AutoCAD Suite, SolidWorks, Home Designer Architectural, Sketch-Up A, PowerPoint, PhotoShop, Sketchpad, Excel, Access, as well as other applications in order to develop a solid background in engineering drawing, C.A.D.D. technology, and architectural, civil, mechanical and Industrial design. The students will also use the following hardware: MakerBot 3D printer for printing 3 dimensional objects and HP Plotter for large drawings and color printer. This course is recommended for students interested in pursuing a career in civil or mechanical engineering, drafting technology, or architectural design. This is a class that can go in many different directions -all depending on the choice of the student with guidance from the instructor. While C.A.D.D. is focused around digital drafting and design aspects (i.e., visual or creative projects involving a computer), there are also many additional features as well. In project-based curriculum, students work in an area of their own interest, generating works of their own inspiration. Within the class the flexibility exists to assign projects ranging in difficulty on the student's ambition and ability. Whether simply designing the blueprints of a house, modifying a preexisting plan, or creating a digitally enhanced pamphlet, students are the designers and researchers of their project. As students advance through the year, they learn how to take on greater challenges, including real jobs. Overall, C.A.D.D. is a great class for anyone. Students work hands-on creating computer-oriented projects that generate final products sparked by their own interests.

Computer Science

MA7419Z Computer Science Discoveries - Curriculum A Grades 9-12 5 credits

What is computer science? Computer Science Discoveries (CS Discoveries) is an introductory semester-long computer science course that empowers students to create authentic artifacts and engage with computer science as a medium for creativity, communication, problem solving, and fun.

Suggested Entry Criteria: There are no prerequisites for this course.

MA7410Z AP Computer Science A Grades 10-12 5 credits

The Advanced Placement Program offers a course and exam in introductory computer science. The course emphasizes object-oriented programming methodology with a concentration on problem solving and algorithm development, and is meant to be the equivalent of a first-semester college-level course in computer science. It also includes the study of data structures, design, and abstraction. The goals of the AP Computer Science A course is comparable to those in the introductory course for computer science majors offered in college and university computer science departments.

Suggested Entry Criteria: Successful completion of Computer Science Principles.

MA7414Z Honors Computer Science Principles Grades 9-12 5 credits

Honors Computer Science Principles provides students the opportunity to use programming, computational thinking, and data analytics to create digital artifacts and documents representing design and analysis in areas including the Internet, algorithms. Students will also explore the impact that these have on science, business, and society. And finally, students will use computational tools and techniques including abstraction, modeling, and simulation to collaborate in solving problems that connect computation to their lives.

Suggested Entry Criteria: Open to students that either complete Computer Science Discoveries or equivalent.

MA7415Z AP Computer Science Principles

Grades 10-12

5 credits

AP Computer Science Principles provides students the opportunity to use programming, computational thinking, and data analytics to create digital artifacts and documents representing design and analysis in areas including the Internet, algorithms. Students will also explore the impact that these have on science, business, and society. And finally, students will use computational tools and techniques including abstraction, modeling, and simulation to collaborate in solving problems that connect computation to their lives.

Suggested Entry Criteria: Open to students that either complete Computer Science Discoveries or equivalent.

IN9915Z Independent Study in Computer Science

Grade 12

2.5 credits

This course focuses on applying advanced concepts learned during the AP course to fun and interesting student driven projects. With a broad range of potential projects from websites, apps, and games, to simulations and robotics, students will be able to pursue aspects of Computer Science that they find most interesting. The students will have the opportunity to work with other teachers and community members to help discover the needs and goals of software that can be used in the broader community.

Suggested Entry Criteria: Successful completion of AP Computer Science A.

MA7424Z Artificial Intelligence with Python - Honors

Grades 10-12

2.5 credits

Learn one of the computer languages voted most fun to learn and use. It's also one of the languages that many college computer science departments are using in their introductory course. We will learn the basics of this scripting language, explore artificial intelligence and have time to explore other high level concepts as driven by student projects. Students will work independently and in groups to create their projects. Computers and online tools will be provided for all students, but the environment that we will be using is available for use at home as well.

Suggested Entry Criteria: Open to students that either complete Computer Science Principles or have experience with the basics of computer programming.

MA7518Z JavaScript and Web Development - Honors

Grades 10-12

2.5 credits

Learn to make websites come alive with interactive components. This course will focus on individual students creating interactive websites. Create your own in-browser games, simulations and informational websites. The course will introduce the students to a broad range of computer science topics including: html, css, and JavaScript. We will develop full websites and JavaScript enabled elements within them. Class is designed to let students combine their interests in computer science and other endeavors to create projects that expand both. Computers and online tools will be provided for all students, but the environment that we will be using is available for use at home as well.

Suggested Entry Criteria: Open to students that either complete Computer Science Principles or have experience with the basics of computer programming.

MA7420Z Video Game Development - Honors

Grades 10-12

2.5 credits

This course will be offered again during the 2022-2023 school year.

Learn to program and have fun doing it. We will use the Java programming language to develop video games and simulations. This course will feature a number of independent projects and is appropriate for students just starting to learn how to program and for students who already have experience and want to hone their skills on projects of their choice. Students will work independently and in groups to create their projects. Computers and online tools will be provided for all students, but the environment that we will be using is available for use at home as well.

Suggested Entry Criteria: Open to students that either complete Computer Science Principles or have experience with the basics of computer programming.

MA7421Z Advanced Robotics - Honors**Grades 10-12****2.5 credits****This course will be offered again during the 2022-2023 school year.**

Build your own robots! Program them to do creative and useful tasks! We will be using Lego EV3 kits and extending them with the Python programming language to develop advanced solutions for robotic tasks. This class goes beyond the standard Lego development environment to really delve into what robots can do for us and how to get them to do it with a modern and growing computer language. This course is designed for students who have no previous programming experience to advanced students who have programmed robots and want to advance their knowledge of computer science through independent projects. Computers and online tools will be provided for all students, but the environment that we will be using is available for use at home as well.

Suggested Entry Criteria: Open to students that either complete Computer Science Principles or have experience with the basics of computer programming.

Performing Arts

The Performing Arts program at Arlington High School provides a variety of high quality music and drama courses in which students will build a foundation for life-long contribution to the cultural enlightenment of the community. Through the performing arts, students express ideas and emotions that they cannot express in language alone and develop an understanding of the historical and cultural contexts of the arts. Students are encouraged to pursue sequential studies in the performing arts in order to create, perform, and respond to art. All full-year Performing Arts classes fulfill the Fine Arts graduation requirement.

PERFORMING ARTS - Full year courses

Levels	Curriculum H	Curriculum A or Heterogeneous
Grades 9	PA7105Z Honors Symphonic Band PA7110Z Honors String Orchestra* PA7125Z Madrigal Singers* PA7220Z Jazz Band*	PA7228Z Concert Choir PA7231Z Concert Choir (Biweekly) PA1250Z Drama I PA8200Z Intro to Music Technology (year long) PA7205Z Symphonic Band PA7210Z String Orchestra
Grades 10-12	PA7105Z Honors Symphonic Band PA7110Z Honors String Orchestra* PA7125Z Madrigal Singers* PA7220Z Jazz Band*	PA7205Z Symphonic Band PA7210Z String Orchestra PA8200Z Intro to Music Technology (year long) PA7241Z Music Improvisation (semester) PA0003Z Songwriting and Production(semester) PA0004Z Music and Sound for Film (semester) PA0005Z Mixing and Mastering Music (semester) PA0006Z Sound and Design Electronic Music (semester) PA0007Z Digital Music Portfolio I (semester) PA0008Z Digital Music Portfolio II (semester) PA7223Z Chorale PA2232Z Chorale (Biweekly)

		PA4141Z Classic American Film (semester) PA4142Z Modern American Film (semester)
Grade 10	PA2249Z Honors Drama II	
Grade 11	PA3150Z Honors Drama III	
Grade 12	PA4150Z Honors Drama IV	

*Students must try out for this course. See Performing Arts Director for details

PA1250Z Drama I - Curriculum A

Grade 9

5 credits

Drama 1 is an introductory course that approaches the study of drama through encounters with acting, improvisation, storytelling, playwriting, design, and dramatic literature. Beginning with the study of Oral Interpretation of Literature and continuing with character development, students will present scenes, monologues, and short original pieces to their peers. Emphasis will be placed on the physical work of an actor. Theatre history and play construction will be studied during the second term. The course is an introduction to drama and is meant as a survey course preparing you for more in-depth study in the future.

PA2249Z Honors Drama II - Curriculum H

Grade 10

5 credits

Students will study advanced acting techniques, explore plays and films, create theatre in a variety of genres, periods, and styles and view the playwright as artist. Students will explore an introduction to directing and playmaking. Classes will encounter various aspects of the technical theatre crafts and present their own theatre creations for classroom and public performance.

PA3150Z Honors Drama III - Curriculum H

Grade 11

5 credits

PA4150Z Honors Drama IV - Curriculum H

Grade 12

5 credits

Honors Drama is a deeper exploration of the Massachusetts Theatre Frameworks presented in Drama 1 and Advanced Drama. Scene work in pairs and as individuals will continue as will written analysis of plays and acting. The role of the director as interpreter will be explored. The texts chosen will reflect the rigor of this upper level class. Theatre history and the role of the playwright in society will continue. Non-Western artists will be studied, as will alternative acting methods and theories, such as those of Anne Bogart. Self-scripted works based on contemporary themes will be explored in presented in public performances. .

PA4141Z Classic American Film

Grades 10-12

2.5 credits

This course is an introduction to film history covering the period 1915-1940s. Students will study how film reflects the major artistic and cultural developments in motion picture history of this era. Topics will include the invention of motion pictures, the establishment of a film industry and the studio system, and developments in the use of cinematic technique. Films explored will include *Modern Times*, *Citizen Kane*, and *Casablanca* (among others). In addition, each student will be required to complete an independent review of a film of critical substance from the list of suggestions or of a substantive film of his/her choice subject to teacher approval. The course is based on the belief that strong connections can be made between language arts and media, between composing and film making, between literature and narrative film, between reader and viewer response, and between literary and film criticism. This is a one semester class that fulfills 1/2 the credits of the fine arts requirement for graduation.

PA4142Z Modern American Film

Grades 10-12

2.5 credits

This course is an introduction to film history covering the period 1940s-1990s. Students will study how film reflects the major artistic and cultural developments in motion picture history. Topics will include the idea of film as art, the development of a particularly American acting style. The historical and political movements that produce specific works of art will be explored. Films explored will be *Rear Window*, *On the Waterfront* and *The Graduate* (among

others). In addition, each student will be required to complete an independent review of a film of critical substance from the list of suggestions or of a substantive film of his/her choice subject to teacher approval. The course is based on the belief that strong connections can be made between language arts and media, between composing and film making, between literature and narrative film, between reader and viewer response, and between literary and film criticism. This is a one semester class that fulfills 1/2 the credits of the fine arts requirement for graduation. (Classic American Film is **NOT** a prerequisite for this course.)

PA7210Z String Orchestra - Curriculum A **Grades 9, 10, 11, 12** **5 credits**
In this course, students will develop instrumental and ensemble skills through such standards as: performing with expression and technical accuracy, exploring a large repertoire of ensemble literature representing various genres and historical periods and acquiring the knowledge of the technical vocabulary of music. Pianists may elect this course only by permission of the instructor.

PA7110Z Honors String Orchestra - Curriculum H **Grades 9, 10, 11, 12** **5 credits**
In this honors level course, students will develop advanced instrumental and ensemble skills through such standards as: playing in a small ensemble, playing music of an advanced degree of difficulty, and being encouraged to perform *so/o*. The Honors Orchestra performs music from the Baroque period to contemporary popular selections and is aligned with the Massachusetts Arts Frameworks and core concepts.
Required Entry Criteria: Audition

PA7105Z Honors Symphonic Band - Curriculum H **Grades 9, 10, 11, 12** **5 credits**
PA7205Z Symphonic Band - Curriculum A
This Symphonic Band course is open to all instrumentalists. Students will explore various musical styles and historical periods by playing with expression, playing with technical accuracy, and demonstrating well-developed ensemble skills. Pianists may elect this course only by permission of instructor. Students wishing to take this course at Honors level (PA7105Z) must qualify by audition, perform a selection approved by the instructor at the end of each marking period, and study privately.

PA7220Z Jazz Band - Curriculum A **Grades 9, 10, 11, 12** **2.5 credits**
The Jazz Band course is open to all qualified instrumentalists. Students will explore various musical styles from early Jazz to Latin and fusion through such standards as playing with expression, playing with technical accuracy and demonstrating well-developed ensemble skills. Students will also be encouraged to improvise in different styles. All Students electing this course must be members of the Symphonic Band, String Orchestra, or Mixed Chorus. **Required Entry Criteria: Audition**

PA7228Z Concert Choir - Curriculum A **Grade 9** **5 credits**
This choir is open to anyone in grade 9. We learn healthy singing techniques, a variety of music literature and repertoire, and perform in concerts at the high school auditorium, Town Hall and in community events and/or festivals when able. The students will sing daily, practice these musical techniques, learn to sight read, learn foundational theory and perform in concerts to expand their musical experience. Attendance at all performances is a requirement of this course.

PA7231Z Concert Choir (bi-weekly): For an option that meets twice a week opposite your PE course, please use the course.

PA7223Z Chorale - Curriculum A **Grades 10, 11, 12** **5 credits**
This choir is open to anyone in grades 10-12 with no audition requirements. We learn healthy singing techniques, a variety of music literature and repertoire, and perform in concerts. The students sing daily to give practice to these techniques, learn to sight read, learn basic theory and perform in concerts to expand their musical experience. Attendance at all performances is a requirement of this course.

PA2232 Chorale (bi-weekly): For an option that meets twice a week opposite your PE course, please use the course.

PA7125Z Madrigal Singers - Curriculum H

Grades 9, 10, 11, 12

5 credits

This is an honors class, an auditioned choir that further applies the principles and techniques learned in Chorale. *Students in grades 10-12 accepted in Madrigal Singers are required to be enrolled in Chorale concurrently; students in grade 9 are required to enroll in Concert Choir.* This class meets every day at 7:00am. This choir performs in many concerts and when there are choir tours available, will be given the opportunity to participate. They sing more challenging repertoire and are held to a higher standard of performance and musicianship. Attendance at all performances is a requirement of this course. **Required Entry Criteria: Audition; concurrent enrollment in Chorale (students in grades 10-12); concurrent enrollment in Concert Choir (students in grade 9)**

MUSIC TECHNOLOGY

Teaching music through technology is one of the fastest growing areas of music education. Students use technology in many aspects of their lives and this program will provide them with the tools to create music and further support our mission of creating lifelong music makers.

Music Technology reaches a broad group of students and gives them the opportunity to create, change, and form sound in new ways. Working in the lab is a perfect example of differentiated instruction: students will be able to save their assignments in an electronic portfolio that may be included later in a college application. Each Music Technology class meets the Fine Arts graduation requirement and meets all of the national standards of music. Classes are limited to 20 students. Students who elect Music Technology courses for honors level credit must complete additional coursework.

Semester courses in Music Technology can be taken in any order and each can be a focus track for Junior and Senior Digital Music Portfolio - especially helpful for those who will major or minor in music production at the college level or seek business internships. **PREREQUISITE:** *Intro to Music Technology (waived for students with a year or more experience in one of our performing ensemble classes)*

Please note that Introduction to Music Technology is a full year class, while the subsequent classes are all taught in a semesterised format.

 **PA8200Z Introduction to Music Technology**
- Heterogeneous

Grades 9, 10, 11, 12

5 credits

This course is required before a student may take any other in music technology. Students will be introduced to the study of music technology, the equipment, and to the programs offered in our lab (including Band-in-a-Box, Aurelia Ear Training, Sibelius Notation software, and Music Theory tools). Instrument and equipment care will be included. Students will complete 'mini' projects in each of the programs.

 **PA9004Z Music and Sound for Film - Heterogeneous** **Grades 10-12**

2.5 credits

Learn the craft and history of great music and sound in Cinema. Apply your learning in creative projects, practicing the art of film scoring, Projects focus on creating the music and soundscapes that bring films to life including environmental sounds or "Foley" and sound effects. Culminating projects will be created in association with ACMI, presented for the community.

 **PA0003Z Songwriting and Production - Heterogeneous** **Grades 10-12**

2.5 credits

The craft and business of songwriting as a semester course. In this course, students learn to create demos of their songs using a combination of recorded audio and synthesized/sampled textures in order to fit their needs. They use virtual instruments; learn to mix multiple audio sources; create semi-professional level mixes that incorporate groups, effects and effect chains; and more. Students create a personal workflow for composition, demo production and artist management.

 **PA9005Z Mixing and Mastering - Heterogeneous** **Grades 10-12**

2.5 credits

Project centered course with a focus on using digital processing to improve and restore recordings to their full potential. Learn how EQ, compression, filters and delay effects work together in music and sound production. Mix and master your own songs or the songs of others recorded in our music studio. Before/after projects in your portfolio will demonstrate practical results of what you have learned.

 **PA9006Z Sound Design, Synthesis and Electronic Music Programming Grades 10-12** **2.5 credits**
Heterogeneous

Project centered course for the electronic musician or sound designer. The course will focus on creating customized sound pallets, with various software synthesizers. Students engage in learning the fundamentals of synthesis, while using and even creating your own music “plugins”.

 **PA9007Z Digital Music Portfolio I - Heterogeneous** **Grades 11, 12 only** **2.5 credits**

For those who might major or minor in music performance or production at the college level or seek business internships. Build your own digital music portfolios including audition tapes, and contest entries. Final portfolio is an important element in starting a musical career and suitable for college admissions, applications and interviews.

 **PA9008Z Digital Music Portfolio II - Heterogeneous** **Grade 12 only** **2.5 credits**

For those who might major or minor in music performance or production at the college level or seek business internships. Build your own digital music portfolios including audition tapes, and contest entries. Final portfolio is an important element in starting a musical career and suitable for college admissions, applications and interviews.

Wellness

The program of Wellness at Arlington High School is a sequence that aligns with many components of the Health Frameworks of the Massachusetts Department of Education and National Standards. Content is drawn from Physical Health, Social and Emotional Health, Safety and Prevention, and Personal and Community Health Strands of the Framework. All students are scheduled to take Health through their Wellness classes. A parent may request to have their child exempt from classes related to sexuality. Such requests shall be made in writing to the principal.

There is a 4 year Physical Education Graduation Requirement

- **Grades 9:** Students are required to take the 9th Grade Wellness Program.
- **Grades 10:** Students are required to take two different quarter electives (preferably in the same semester). Students are not allowed to take electives marked for Grade 11 and 12 only.
- **Grades 11 and 12:** Students are required to take two quarter electives by the time of their graduation. This may entail taking two quarter electives during your junior year, or one junior and one senior year. Spaces may be limited in some electives. Seniors are given preference. Grade 12 students cannot enroll

in Quarter 4 electives.

- **There is a 4 absence allowance for all Quarter Elective classes. If a student surpasses the 4 absence allowance they must enroll in another elective to earn PE Graduation requirement credit. Students may not add a quarter elective after the second class in quarter 1 and the first class in quarters 2, 3 and 4.**

***See above for details specific to the class of 2022, Covid-19 and their requirements.**

Levels	Courses
Grade 9	PE1610Z 9th Grade Wellness Program
Grades 10, 11 & 12 Electives Grades 11+12 (see below as well)	PE7661Z Personal Fitness (2.5 credits) PE7705Z Team Sports (2.5 credits) PE7025Z Yoga (2.5 credits) PE7006Z Walking (2.5 credits) PE7700Z Advanced CPR & First Aid (2.5 credits) PE5655Z Adaptive Physical Education Leader (2.5 credits) PE7021Z Nutrition (2.5 credits) PE7007Z Biking (2.5 credits) PE7026Z Relaxation (2.5 credits) PE7804Z Indoor/Outdoor Rock Climbing (2.5 credits) PE7020Z Recreational Sports (2.5 credits) PE7660Z Wilderness First Aid (2.5 credits) PE7918Z Basic Physical Self Defense (for students who identify as female/non-binary) (2.5 credits) PE7919Z Basic Physical Self Defense (for students who identify as male/non-binary) (2.5 credits) PE7662Z AM Personal Fitness (2.5 credits) PE7663Z AM Recreational Sports (2.5 credits) PE7664Z Drugs and the Body (2.5 credits) PE7916Z Athletic Training (2.5 credits)
Grades 11 & 12 Only	PE7914Z Backpacking & Camping (Grade 11 and 12 only) (2.5 credits) PE7659Z Survival and Wilderness Camping (Grade 11 and 12 only) (2.5 credits) PE7686Z Physical Education Leader (Grade 11 and 12 only, Fall Semester, 2.5 credits) PE7688Z Physical Education Leader (Grade 11 and 12 only, Spring Semester, 2.5 credits)
Grade 12 only	PE3725Z Personal PE Contract (Semester 1 or 2)

PE1610Z Ninth Grade Wellness Program **Grade 9** **2.5 credits**
This introductory course includes regular physical activity with a core of adventure programming and cooperative games, introduction to fitness, and lifetime and team sports. Students examine motor skill development, fitness, and personal and social competency. In Life issues, students address substance addictions, dating issues, sexuality, media influence, personal wellness, and take a CPR course.

Electives

PE3725Z Personal PE Contract (Semester 1 or 2) **Grade 12 only** **2.5 credits**
Personal PE Contract is an independent study designed for grade 12 students who are taking a full course load and cannot fit a Physical Education Elective into their schedule. Students fulfill their PE requirement by participating in an extracurricular, supervised, physical activity. The minimal requirement for fulfilling the contract is 30 hours of Physical Activity as well as other mandatory assignments that coincide with their logged physical activity. In order for students to take the PE Contract they must demonstrate a need for the course by taking a full schedule of classes and get instructor consent.

PE7661Z Personal Fitness **Grades 10, 11, 12** **2.5 credits**
This course offers instruction and practice in various fitness components such as cardiorespiratory endurance, muscular endurance, muscular strength, and flexibility. Activities include strength training, aerobic training, cardiorespiratory fitness, fitness games, yoga, nutrition, injury prevention and fitness testing. Personal training and fitness plan development are offered in this course.

PE77662Z A.M. Personal Fitness **Grades 10, 11, 12** **2.5 credits**
This course will meet from 7:30am-8:20am. This course offers instruction and practice in various fitness components such as cardiorespiratory endurance, muscular endurance, muscular strength, and flexibility. Activities include strength training, aerobic training, cardiorespiratory fitness, fitness games, yoga, nutrition, injury prevention and fitness testing. Personal training and fitness plan development are offered in this course.

PE7686Z Physical Education Leader (Fall Semester) **Grades 11, 12 only** **2.5 credits**
PE7688Z Physical Education Leader (Spring Semester) **Grades 11, 12 only** **2.5 credits**
This course is designed for the student who has been successful in the freshman/sophomore physical education program. They have demonstrated effective leadership and cooperative skills. The student gets the opportunity to assist in the freshman physical education class.

PE7914Z Backpacking & Camping **Grades 11, 12 only** **2.5 credits**
This is a one Quarter PE elective designed to teach students the skills needed to plan and participate in backpacking trips. Students will learn skills such as map reading, meal planning, fire lighting, and basic first aid, among others needed for successful low impact backpacking. The course will culminate with a 3 day 2 night backpacking trip that is required for successful completion of the course. Course size is limited to no more than 13 students. (Please note: the course meets during the 1st and 4th Quarter and is offered to Grade 10 and 11 only in Quarter 4).

PE7705Z Team Sports **Grades 10, 11, 12** **2.5 credits**
Students will choose and participate in team activities ranging from football, basketball, soccer, and other team sports. (Please note: the course meets during the 1st and 4th Quarter and is offered to Grade 10 and 11 only in Quarter 4).

PE7659Z Survival and Wilderness Camping **Grades 11, 12 only** **2.5 credits**
This course offers students the opportunity to experience adventure in the outdoors. Through hands-on

experience, students learn wilderness survival skills such as orienteering, shelter building, fire making, water purification, and other skills to make them more comfortable and capable in a remote forested environment. These skills are put to the test when the students participate in a required four day solo winter camping experience. Course size is limited to no more than 14 students.

PE7700Z Advanced CPR & First Aid **Grades 10, 11, 12** **2.5 credits**

Through a combination of classroom lecture and hands-on practice, this course is designed to teach the basic skills necessary to competently and effectively respond to a variety of crisis situations. Students will learn how to assist individuals with various traumatic injuries and sudden medical emergencies. Through the course, students will learn the recognized skills to receive a certification in BLS CPR and First Aid.

PE7006Z Walking **Grades 10, 11,12** **2.5 credits**

This course offers students the opportunity to walk for exercise and learn various ways to map routes and to learn the benefits of walking as a lifelong fitness activity. (Please note: the course meets during the 1st and 4th Quarter and is offered to Grade 10 and 11 only in Quarter 4).

PE7025Z Yoga **Grades 10, 11, 12** **2.5 credits**

Students will learn and engage in Yoga exercises, and design their own Yoga routines.

PE5655Z Adaptive PE Leader **Grades 10, 11, 12** **2.5 credits**

This elective is designed to work closely with students with special needs. Similar to the Best Buddies Club, students in this elective will be paired up with a special needs student in the LABBB program to provide adapted physical education activities. Students that take this elective will plan a variety of physical activities that can be taught to the students in the LABBB program.

PE7021Z Nutrition **Grades 10, 11, 12** **2.5 credits**

This course is designed to focus on healthy foods and lifestyle choices. The goal is to enhance student awareness in regards to personal food choices and physical activity. Topics will include general nutrition knowledge, daily caloric needs, healthy foods and recipes, healthy weight management, creating healthy meals, etc.

PE7007Z Biking **Grade 10, 11, 12** **2.5 credits**

This course will include topics such as bicycle safety, road bicycling safety, and bicycle maintenance. Students will learn skills such as use of proper equipment, changing a flat tire, fixing a disassembled chain, rules to the road, bicycle operation, and cycling for fitness. (Please note: the course meets during the 1st and 4th Quarter and is offered to Grade 10 and 11 only in Quarter 4).

PE7026Z Relaxation **Grade 10, 11, 12** **2.5 credits**

This course will offer techniques and strategies for relaxation and mindfulness as a means to reduce stress. The class will also examine the psychological and physiological effects of stress, the assessment of individual risk factors that relate to stress, and strategies to reduce stress and take control over stress levels.

PE7804Z Indoor/Outdoor Rock Climbing **Grades 10, 11, 12** **2.5 credits**

This course offers students the opportunity to participate in a series of high impact challenges on our indoor and outdoor challenge course. With a focus on safety, students will learn how to use modern climbing equipment to safely ascent high climbing elements, rock faces, climbing walls, and other various high challenge activities. A focus of the course will be on personal challenge as well as on safety and support of others. (Please note: the course meets during the 1st and 4th Quarter and is offered to Grade 10 and 11 only in Quarter 4).

PE7020Z Recreational Sports **Grade 10, 11, 12** **2.5 credits**

Students in this course will participate in activities that are more individually based such as badminton, table tennis, tennis, etc. and activities that are team based but recreationally focused. (please note; the course meets during the 1st and 4th Quarter and is offered to Grade 10 and 11 only in Quarter 4).

PE7663Z A.M. Recreational Sports **Grade 10, 11, 12** **2.5 credits**

This course will meet from 7:30am-8:20am. Students in this course will participate in activities that are more individually based such as badminton, table tennis, tennis, etc. and activities that are team based but recreationally focused. (please note; the course meets during the 1st and 4th Quarter and is offered to Grade 10 and 11 only in Quarter 4).

PE7660Z Wilderness First Aid **Grades 10, 11, 12** **2.5 credits**

This course designed for students who are interested in working as seasonal outdoor staff, summer camp staff and those involved in recreational wilderness trips. Class time will involve hands-on skill practice, discussions and reading assignments. Students will be expected to demonstrate their proficiency and knowledge of the course materials through practical and written assessments. Course topics include: Patient Assessment System; Critical Body Systems; Fractures, Stable Injuries; Splinting; Hypothermia; Hyperthermia and Heat Illness; Near Drowning; Lightning Injuries; Wounds and Burns; Anaphylaxis; Lifting, Moving Extrication; Patient Carries; Backcountry Medicine.

PE7916Z Athletic Training **Grades 10, 11, 12** **2.5 credits**

This course provides high school students with a general overview of athletic training and sports medicine. It includes introductory information about the AT's scope of practice: injury prevention, treatment, rehabilitation, emergency injury management and administrative functions. This course is intended to help students gain an understanding of sports medicine, various associated disciplines and the role they play in the physically active community. This course is led by a certified and licensed Athletic Trainer.

PE7918Z Basic Physical Self Defense (Female/non-binary) **Grades 10, 11,12** **2.5 credits**

This course is designed for students who would like to learn self defense and conflict reduction skills appropriate for those identifying as female or non-binary . The course has its foundations in education and awareness. The course includes lecture, discussion and self-defense techniques.

PE7919Z Basic Physical Self Defense (Men/non-binary) **Grades 10, 11,12** **2.5 credits**

This course is designed for students who would like to learn self defense and conflict reduction skills appropriate for those identifying as male or non-binary . The course has its foundations in education and awareness. The course includes lecture, discussion and self-defense techniques.

PE7664Z Drugs and the Body **Grades 10, 11 and 12** **2.5 credits**

This course will dive deeper into the effects of drugs, both legal and illegal, and how they affect the body. The course will build off of the Grade 9 curriculum and offer a more in-depth look at their effects on the human body, behavior, psychology, and experience.

SCIENCE

The goal of the science department at AHS is to support all students in attaining content knowledge and complex reasoning skills necessary to understand the core areas of science as well as to become a scientifically informed citizen through hands-on laboratory experiences. We also strive to foster science-specific literacy in the reading, writing, and mathematics necessary for career and college readiness. Taking more than one science course during a given year (10–12) is possible with departmental approval. A four year science sequence can be generated from the table below. All science courses include laboratory experiences.

- Since our science curriculum often involves application, spiraling and cross cutting of concepts, pre/co-requisites are highlighted in the program of studies for science progression.
 - **9th grade students** must take Physical Science as a precursor to the level of science knowledge expected at the high school, but more importantly for the laboratory skills acquisition necessary for higher level coursework.
 - Students take the Introductory Physics Massachusetts Comprehensive Assessment System (MCAS) science test near the end of the 9th grade. Passing a science MCAS is required to meet state and local graduation requirements.[^]
 - **10th grade students** take an Introductory Biology Course.
 - **11th and 12th grade students** are encouraged to explore areas of interest in the realm of science, and offer a variety of rigorous courses at appropriate levels. All students must take at least 3 years (15 credits) of science.
- All college bound students should plan to take both Chemistry and Physics courses. These are core sciences, along with Biology, and expected by most competitive colleges. These courses are offered at various levels. There is a significant difference between the levels in these classes and can be taken on the academic, honors, and AP levels of rigor. Some of the differences are found in the content depth, pace, common assessments, pre-requisites, amount of time they require outside of class, expectations of independence in laboratory experiences, and differences in the course text.
 - We encourage any student who has an interest in an intended area of study to visit a college website and to obtain the academic plan. They will find in all STEM related or medical science research based career choices, these core science classes are highlighted.

[^]If a student does not pass the Introductory Physics MCAS after grade 9, but has passed the Physical Science course, they will move on to Biology and then take the Biology MCAS.

Science Course Offerings

Grade 9 Required	Grade 10 Required with a choice of	Grade 11 Required with a choice of	Grade 12 Choice of
Physical Science	Honors Biology Biology	Honors Chemistry Chemistry Applied Chemistry Physics AP Biology AP Physics 1 AP Physics 2 AP Physics C (Mechanics) Science Electives*	Honors Chemistry Chemistry Applied Chemistry Physics AP Biology AP Chemistry AP Environmental Science AP Physics 1 AP Physics 2 AP Physics C (Mechanics) Science Electives*

* Astronomy and oceanography are ½ year courses. Science elective courses are available as heterogeneous courses at the H or A level. Additional requirements are assigned for H level. Students declare H or A in September.

Physical Science Course Offerings



SC1105Z Physical Science Heterogeneous

Grade 9

5 credits

This course is designed to introduce students to the relationships that exist between matter and energy. Through meaningful problem-solving and laboratory investigations, students will apply physical laws in order to become aware of the strong partnership between science and technology and between the process and product of science. Areas of concentration will include motion, forces, conservation laws, heat, electricity and magnetism, waves, and light and sound. This course includes a wide variety of laboratory demonstrations and activities. Students will be prepared to successfully complete the Introductory Physics MCAS test.

*Student may elect to complete additional work to receive Honors Credit.

Biology Course Offerings

SC2106Z Honors Biology - Curriculum H

Grade 10

5 credits

Students in Honors Biology encounter the principles of biology through advanced readings, scientific inquiry and laboratory investigation. This course emphasizes the molecular aspects of life through the study of: biochemistry, cellular structure, function and replication, energy transfer in living systems, genetics and reproduction. The course includes significant study of evolution, scientific and technical literacy, as well as human and systemic applications. This laboratory, reading, and writing intensive course expects significant independence on the part of the student so that more class time can be devoted to in-depth discussion. Students should be willing to take responsibility for learning and appreciate their role as members of a learning community. The topics studied in Honors Biology are consistent with the Massachusetts Science and Technology Frameworks life science strand. Preparation for the Biology SAT II test will require independent study of some topics.

Suggested Entry Criteria: “B” or better in Honors level Physical Science or an “A” in A level Physical Science and science teacher recommendation.

SC2111Z Biology - Curriculum A

Grade 10

5 credits

This course emphasizes the molecular, cellular, organismal and ecological aspects of the living world. Special emphasis is placed on characteristics of organisms, evolution of life, principles of heredity, molecular genetics, and the dynamics of ecosystems. Students complete approximately twenty laboratory exercises some of which require formal lab reports. Reading and writing assignments will include articles from science journals and magazines, and students will research and do a project on a topic in modern biology each quarter.

Chemistry Course Offerings

SC3106Z Honors Chemistry - Curriculum H

Grades 11, 12

5 credits

This course is designed for students with a strong interest in science and who demonstrate a high level of mathematical competency. The course covers, in detail, a broad range of topics and is thus geared toward the highly motivated student who can manage the pace and academic rigor of the course. Honors Chemistry is a laboratory and writing intensive course. Students who take this course will need to study several other topics to be completely prepared for the SAT II subject test in chemistry.

Suggested Entry Criteria: Completed Algebra 2

SC3111Z Chemistry - Curriculum A

Grades 11, 12

5 credits

This chemistry course offers students a rigorous course in modern chemistry, but at a more moderate pace than Honors Chemistry. Students in this course will have more time to review concepts, including mathematical

calculations, than Honors Level Chemistry students. The course is laboratory intensive with emphasis on qualitative and quantitative experiments. Topics covered will conform to the Massachusetts State Frameworks for Chemistry and will prepare students for undergraduate General Chemistry.

SC3217Z Applied and Qualitative Chemistry - Curriculum A Grades 11, 12

5 credits

The Applied and Qualitative Chemistry program is designed to be a hands-on inquiry-based exploration of chemistry. It is designed to develop problem-solving and critical-thinking skills related to chemistry, apply chemistry knowledge to decision-making about scientific issues, and recognize the importance of chemistry in daily life. Always focused on making the connections between science and technology and their impact on the quality of our lives, the study of chemistry uses multiple pathways of scientific reasoning with specific emphasis on written and oral communication as well as logical reasoning to explore atomic and molecular structure, chemical bonds, conservation of matter, reaction rates, organic chemistry, acid-base chemistry and biochemistry. Students will be expected to relate and use learned concepts in class through lab experiences, projects, tests, and common applications.

Physics Course Offerings

SC4116Z Physics*

Grade 11, 12

5 credits

This physics course is for highly motivated students with strong scientific interest and mathematical ability. Students should be able to handle abstract ideas both conceptually and quantitatively, including their application to new situations. The major topics include force and motion, vectors and projectiles, energy and momentum, electricity and magnetism, and waves and light.

Suggested Entry Criteria: Algebra 2 (may be taken concurrently). Teacher Recommendation

***Students have the option of earning Honors Credit through more challenging research and project work.*

Advanced Placement Courses

The following courses are designed to offer an introductory college science experience and meet the requirements of the College Board. These courses are offered as the student's second high school exposure to the content, not as a preliminary course in the subject. The College Board has approved the curriculum and textbooks for these courses. AP students are required to take the College Board's National Advanced Placement examination in May.

SC4010Z Advanced Placement Biology AP

Grades 11, 12

5 credits

The Advanced Placement Biology Course is designed to be the equivalent of a college introductory biology course usually taken by biology majors during their freshman year. It provides students with the conceptual framework, factual knowledge, and analytical skills necessary to deal with the rapidly changing science of biology. As suggested by the College Board in its Advanced Placement Course Description, the course is divided into three major topic areas: 1) molecules and cells, 2) genetics and evolution, and 3) organisms and populations. Laboratory experiences comprise approximately 40% of the grade, and students are involved in original research during the year. In addition to reading from a college text, students will be required to read articles from outside sources including scientific journals.

Suggested Entry Criteria: B or better in Honors Biology or A- or better in Biology, *Successful completion of chemistry is highly recommended*, teacher recommendation.

SC4002Z Advanced Placement Chemistry AP

Grade 12

5 credits

Advanced Placement Chemistry is designed to be the equivalent of a college introductory chemistry course usually taken by science majors during their freshman year. Students utilize a college textbook and the course moves at a brisk pace. The topics covered are those suggested by the College Board. Laboratory experiments with formal lab reports are a significant portion of the class and are reflected as such in the course grade.

Suggested Entry Criteria: "B" or better in Honors Chemistry or "A" in Chemistry; *Successful completion of*

Pre-calculus is highly recommended, teacher recommendation.

SC4007Z Advanced Placement Physics 1 AP credits

Grades 11, 12

5

This course is designed to be the equivalent of an algebra-based course in introductory college physics. The content of the course corresponds to the requirements of the College Board Advanced Placement Physics 1 curriculum. This involves Newtonian mechanics (including angular and rotational), work, energy, power, mechanical waves, sound, and electric circuits. The pace of the course is demanding in terms of both content and problem-solving. Students entering this class should be highly motivated in science and willing to apply themselves to studying an advanced curriculum. There will be an integrated lab component to the course and long-term STEM projects will be assigned both semesters.

Suggested Entry Criteria: Algebra 2

SC4008Z Advanced Placement Physics 2

Grades 11, 12

5 credits

This course is designed to be the equivalent of an algebra-based course in introductory college physics. The content of the course corresponds to the requirements of the College Board Advanced Placement Physics 2 curriculum. This involves fluids, thermodynamics, electricity & electromagnetism, optics, and atomic physics. The pace of the course is demanding in terms of both content and problem-solving. Students entering this class should be highly motivated in science and willing to apply themselves to studying an advanced curriculum: previous high-level coursework in Kinematics, Newtonian Mechanics, Mechanical Waves and basic Electricity is assumed. There will be an integrated lab component to the course and long-term STEM projects will be assigned both semesters.

Suggested Entry Criteria: B or better in previous AP Physics 1 class or Physics class, and Algebra 2

SC4011Z AP Physics C (Mechanics)

Grades 11, 12

5 credits

AP Physics C is a laboratory science course that offers a conceptual and rigorous mathematical approach to physics, and an advanced understanding of high school math is assumed. This course forms the first part of a college sequence serving as the foundation in physics for students majoring in the physical sciences or engineering. Differential and integral calculus are applied to 45 topics outlined by the College Board for the AP Physics C: Mechanics exam. Topics included are kinematics; Newton's laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. Methods of calculus are used wherever appropriate in formulating physical principles and in applying them to physical problems.

Prerequisite: Calculus. *Successful completion of a previous physics course is recommended. Teacher and Science Director approval is required.*

SC4070Z Advanced Placement Environmental Science

Grades 11, 12

5 credits

AP Environmental Science is designed to explore and investigate the relationships of the natural world, identify and analyze environmental problems, both natural and human made, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving and/or preventing them. The course follows the curriculum suggested by the College Board. A strong hands-on component with lab and field studies will be integrated.

Suggested entry criteria: Completion of biology, completed or concurrent chemistry, previous science teacher recommendation.

Science Elective Course Offerings

 **SC3252Z Anatomy and Physiology**

Grades 11, 12

5 credits

This course will concentrate on areas of anatomy and physiology not generally covered in depth in a first year biology course. It will provide a balanced and integrated introduction to the human body suitable for students with

varying needs and interests but especially for those interested in allied health fields, pre-nursing, and pre-medical education. Students complete a required internship, projects, research papers, anatomical dissections, and other laboratory exercises that reinforce the basic principles of physiology and anatomy.

Suggested Entry Criteria: B- or better in Biology

** Students have the option of earning Honors Credit through more challenging research and project work.*



SC7258Z Astronomy

Grades 11, 12

2.5 credits

This half-year course provides a comprehensive introduction to astronomy, from the history of this early science to cutting-edge theories about the universe and its origin. Students will examine the Earth's place in space and the relationships among the Earth, Moon, and Sun. Our solar-system survey will encompass the planets, their moons, asteroids, comets, and the microscopic particles that give rise to the northern lights. The course will then take us step by step into the universe beyond the solar system: stars, galaxies, and the cosmos as a whole. Basic chemistry and physics are integrated into the course, as are high-school-level algebra and basic geometry. Students will also explore the concepts of space travel and rocketry by designing, building, and testing their own spacecrafts in Kerbal Space Program.

** Students have the option of earning Honors Credit through more challenging exercises, tests, and lab work.*



SC7277Z Oceanography

Grades 11, 12

2.5 credits

This half-year course, offered each semester, provides an introduction to oceanography, including origin of the Earth and its oceans, the geography and geology of ocean basins, and plate tectonics. Students examine the chemistry of ocean water, marine sediments, and saltwater organisms and their unique adaptations. Waves and tides provide examples of the physical science supporting oceanography. Marine habitats are studied as examples of ecosystems impacted by the ocean environment. The course includes term research projects and one or more field trips. Basic principles of chemistry and physics are integrated into the course, as they relate to the study of Oceanography.

** Students have the option of earning Honors Credit through more challenging research and project work.*



SC7268Z Environmental Science
credits

Grades 11, 12

5

Environmental science focuses on the study of how human activity affects habitats and the relationships among organisms and the natural world. The course will include the detailed study of the principles of ecology, including several hands-on investigations and research projects and papers. Students will investigate the earth's natural resources, including biodiversity, soil, land, air, water, and energy, with the goal of understanding the delicate balance of life on earth. Problems such as pollution, overpopulation, and extinction are studied in a global context, and students investigate a wide range of solutions based on the in-depth study of environmental science. The principles of chemistry and physics are integrated into the course, as they relate to environmental science.

Suggested Entry Criteria: B- or better in Biology.

** Students have the option of earning Honors Credit through more challenging research and project work.*



SC1292Z Engineering

Grades 11, 12

5 credits

This course will utilize the Engineering the Future curriculum developed by the Museum of Science (Boston), with particular emphasis on engineering design, manufacturing, construction, written communication, and mathematics. The school resources available in the technology resource center will be utilized for collaborative project design and construction, integrating concepts across the disciplines in the school's Maker space. Students work in a classroom and workshop setting with woodworking materials, metals, and laboratory equipment. By applying the mathematics of engineering and completing hands-on design projects, students learn about the different roles of mechanical, fluid and electrical engineering in the modern world. The course helps students pursuing a technical career to understand the many ways in which they may engineer the world of the future.

**Students have the option of earning Honors Credit through more challenging research and project work.*

Science Elective Courses (All ½ year)

SC7286Z Weather and Climate

Grades 10, 11, 12

2.5 credits

With a planet in extreme environmental disruption due to the increasing effects of Global Climate Change, it has never been more important to study the science of weather and climate on planet Earth. This half-year course of introductory meteorology will explore how the orbital mechanics of the Earth alter the way it absorbs energy from the Sun, thereby causing the air and water on the surface of the Earth to cycle and cause the various weather phenomena we experience throughout our lives. In addition to learning about the complex global climate systems that influence our weather, students will learn the basics of observing the environment around them to forecast local weather to come. Students will be expected to collect field samples and measure weather conditions numerous times throughout the course, so prepare to be outside throughout the seasons both in class and for homework. **(not offered in the 2021-2022 school year)**

* Students have the option of earning Honors Credit through more extensive weather sampling and reporting, tests, and projects.

SC7288Z Physiology of Exercise & Activity

Grades 10, 11, 12

2.5 credits

This course examines the physiological effects of exercise and activity with an emphasis on humans. Major topics include energy use & nutrition, the muscular, cardiovascular, and respiratory adaptations across the age span and special environments (high and low altitude, heat and cold). **Must be currently enrolled or have completed biology. (not offered in the 2021-2022 school year)**

* Students have the option of earning Honors Credit through more extensive weather sampling and reporting, tests, and projects.

Visual Arts

Visual art courses offer a wide variety of disciplines and media and allow students to explore and strengthen their creativity and their creative problem solving skills. The curriculum in all courses has been designed to maximize the development of certain thinking skills that lead to expressive, personal and independent original work. Students are encouraged to think, write and speak critically about their own work, the work of other students and the work of contemporary and historical artists and art forms from all over the world.

The curriculum is aligned with the Massachusetts Visual Arts Frameworks and with the latest research in the art educational field. The curricula in all courses have been broadened recently to increase student exposure to diverse artists and world cultures and to encourage students to use their artistic voices to address social issues that are personally important to them. All courses fulfill the AHS Fine Art 5 credit graduation requirement (or 2.5 credits for half-year visual art courses). Please note that prerequisites (suggested entry criteria) for certain visual art courses can be waived with the permission of the instructor or the Director of Visual Art.

Levels	Curriculum H	Curriculum A
Grades 9-12		AC1206Z Foundations in Studio Art ** incoming 9th graders see below for other options
Grades 10-12		AC2206Z Studio Art * (full year) AC3588Z Digital Photography I * (full year)

		<p>AC7830Z Mixed Media* (full year) AC7822Z Painting I * (half year) AC7823Z Painting II* (half year) AC3600Z Ceramic Sculpture and Pottery I * (half year) AC3603Z Ceramic Sculpture and Pottery II* (half year) AC7825Z Drawing I * (half year) AC7826Z Drawing II* (half year) AC3601Z Sculpture * (half year)</p> <p>* 10, 11, and 12 graders can take these courses without having taken Foundations in Studio Art but permission from the instructor or the Director of Visual Art is required</p> <p>** incoming 9th graders can apply to take the full year courses listed above (bold faced). Contact the Director of Visual Art or an art teacher.</p>
Grades 11 & 12	AC3105Z Portfolio Preparation AC4130Z Advanced Portfolio Preparation AC3590Z Digital Photography II AC4002Z Advanced Placement Art and Design	

AC1206Z Foundations in Studio Art - Curriculum A

Grades 9, 10, 11, 12

5 credits

For many students, this visual art course, “Foundation in Studio Art” is the best entry point to all of our studio art courses. This course is designed to increase students’ understanding of the potential of visual art to communicate personal feelings and ideas. A rich variety of media are introduced through projects that emphasize both creativity and skill building. Students study observational and imaginative drawing, painting, printmaking, digital imaging, and sculpture, including working with clay, wire, wood, and other 3D materials. World cultures and the work of both historical and contemporary artists are used to inform and inspire student art making. The course is designed for students who might continue studying visual art in high school but also for students who may not take a course in visual art again. This course fulfills the 5-credit Fine Arts Graduation Requirement.

AC2206Z Studio Art * - Curriculum A

Grades 10, 11, 12

5 credits

Studio Art is designed to increase students’ independence and confidence in their artmaking. Emphasis is placed on individualized instruction and on the ability of students to make informed decisions about materials and themes. Students study a range of historical periods and contemporary art styles. Students are challenged to use a rich variety of 2D and 3D media to explore complex ideas in visual art. Artwork is regularly shared, critiqued and exhibited and a sketchbook is maintained throughout the year. This course fulfills the 5 credit Fine Arts

Graduation Requirement.

Suggested Entry Criteria: Foundations in Studio Art or *permission of the instructor and this applies to 9, 10, 11 and 12 graders.

AC7830Z Mixed Media *- Curriculum A

Grades 10, 11, 12

5 credits

This studio course is designed for students who want to explore a wide variety of media and techniques in the area of sculpture (3D) as well as projects that integrate 2D and 3D processes. Materials and techniques include handbuilding in clay, assemblage, wire, found object construction, installations, public art, fiber arts, environmental art, puppet making and other traditional and non-traditional methods of art making. Students are introduced to contemporary and historical artists and issues in visual art across cultures. Students work both independently and collaboratively to complete creative works ready for critique and exhibition.

Suggested Entry Criteria: "Foundations in Studio Art" or *permission of the instructor and this applies to 9, 10, 11 and 12 graders..

AC7822Z Painting I* - Curriculum A

Grades 10, 11, 12

2.5 credits

This studio course is designed for students who want to explore both traditional and contemporary approaches to painting. Portraiture, still life, landscape, abstraction and working from the imagination are possible areas of concentration. Students develop skills in the use of a variety of painting media and techniques including acrylics and watercolor but also learn to use painting as a way to express and develop their own style and their own ideas. Hands-on studio work is supported by presentations of contemporary and historical works, technical demonstrations, class discussions and critiques. Students are encouraged (but not required) to take Painting I and Painting II consecutively. The course fulfills 2.5 credits toward the 5 credit Fine Arts Graduation Requirement.

Suggested Entry Criteria: Foundations in Studio Art or *permission of the instructor.

AC7823Z Painting II* - Curriculum A

Grades 10, 11, 12

2.5 credits

Painting II is offered for students who want to explore painting as an expressive and individualized art form. Students use a variety of two-dimensional and three-dimensional materials in addition to different kinds of paint including acrylics and other materials to communicate personal narratives and feelings. Students learn how today's artists push the boundaries of traditional painting to include mixed media, collaborative projects, and subjects and themes that are inspired by the artist's personal experiences and beliefs. Hands-on studio work is supported by presentations of contemporary artists' work, technical demonstrations, class discussions, readings, and group critiques. The course fulfills 2.5 credits toward the 5 credit Fine Arts Graduation Requirement.

Painting II can be taken without having completed Painting I but, in that case, Foundations in Studio Art is a strongly suggested entry criteria.

Suggested Entry Criteria: Foundations in Studio Art or *permission of the instructor

AC3600Z Ceramic Sculpture and Pottery I* - Curriculum A

Grades 10, 11, 12

2.5 credits

This half-year course introduces students to the use of clay as a sculptural material to create both functional and aesthetic objects.. Through this course students are able to develop their own personal style through hand building and wheel throwing. Students use clay to convey meaning and emotion while creating personalized works of art. A variety of surface treatments and glazing techniques will be taught. Students learn how clay is being used now in the contemporary art world as well as historical approaches in many world cultures.

This course fulfills 2.5 credits toward the 5-credit Fine Art Graduation Requirement

Suggested Entry Criteria: Foundations in Studio Art *or permission of the instructor.

AC3603Z Ceramic Sculpture and Pottery II - Curriculum A

Grades 10, 11, 12

2.5 credits

In this half-year course, students expand their technical skills using clay to create personally meaningful works of art that are functional, sculptural and aesthetic. Students are challenged to develop more sophisticated thinking and making skills to explore the expressive and sculptural possibilities of clay as well as to create more complex useful ceramic vessels. The course includes a variety of hand building and wheel-throwing techniques, pushes the potential for large-scale works, and further explores surface treatments and glazing techniques. Projects and

techniques are taught with reference to contemporary and historical art and ceramics from around the world. Previous student experience with clay is preferred including the course Ceramic Sculpture and Pottery I course. The course fulfills 2.5 credits toward the 5 credit Fine Arts Graduation Requirement.

Suggested Entry Criteria: Foundations in Studio Art *or permission of the instructor.

AC7825Z Drawing I* - Curriculum A

Grades 10, 11, 12

2.5 credits

Drawing I provides an introduction to the foundational skills of drawing using a wide range of media and contemporary methods. Students develop new ways of seeing and interpreting organic and man-made forms. Unusual perspectives, compositions, and viewpoints will be explored. Throughout the course, students experiment with abstraction, surrealism, conceptual, and representational (realistic) artistic styles. Students develop skills in analyzing and discussing artwork as they study and research a range of artists' drawings, styles, methods, and processes. Students also understand that they can communicate personal ideas and express their artistic identities through the act of drawing. Formal issues in drawing such as the use of mark-making, line, space, scale, light and dark and composition are studied. Students maintain an active sketchbook for planning, idea development, and out-of-school assignments. The course fulfills 2.5 credits toward the 5 credit Fine Arts Graduation Requirement.

Suggested Entry Criteria: Foundations in Studio Art *or permission of the instructor.

AC7826Z Drawing II - Curriculum A

Grades 10, 11, 12

2.5 credits

In this more advanced drawing course students investigate a broad range of approaches to drawing. Students learn that creative drawing is an art form in its own right. Students explore different ways of using materials and tools to communicate and express personal ideas and interests. Drawing II builds on students' skills in the use of mark-making, line, scale, space, light and dark and composition in styles that emphasize both realism and abstraction and in both contemporary and historical contexts. Students discover that "drawing" can include all kinds of media including dry and liquid media, collage, and even three-dimensional drawing materials. Students maintain an active sketchbook for planning, idea development, and out-of-school assignments.

The course fulfills 2.5 credits toward the 5 credit Fine Arts Graduation Requirement.

Suggested Entry Criteria: Foundations in Studio Art *or permission of the instructor.

AC3601Z Sculpture* - Curriculum A

Grades 10, 11, 12

2.5 credits

This visual art course is for students who enjoy working three-dimensionally. Students learn how to use a variety of materials to create small and large-scale non-functional artworks that communicate ideas. Materials include clay, wood, wire, metals, found objects, and natural and recycled materials. Students work both independently and collaboratively, connect with other disciplines, and create sculptures to exhibit and critique. The course also touches on how artistic traditions from around the world have informed contemporary and historical sculpture and how these methods and themes can inspire personal work.

The course fulfills 2.5 credits toward the 5 credit Fine Arts Graduation Requirement.

Suggested Entry Criteria: Foundations in Studio Art *or permission of the instructor.

AC3105Z Portfolio Preparation - Curriculum H

Grades 11, 12

5 credits

This honors level studio course emphasizes portfolio development, presentation, and individual expression through in-depth projects. Students develop their skills in traditional and new media, study movements in art history, and explore the role artists are playing and have played in changing society. Students complete a balanced portfolio that is essential for AP Art preparation and for application to all accredited art schools, colleges and universities.

Suggested Entry Criteria: 2 years of visual art courses or permission of the instructor

AC4130Z Advanced Portfolio Preparation - Curriculum H

Grade 11, 12

5 credits

This honors level advanced studio course is aligned with the Massachusetts Visual Arts Frameworks and allows students to perfect their skills in a variety of advanced art media. Students study major movements in art history, contemporary art influences of various cultures on the world of art, and artists' writings about their art through

independent projects. Students are expected to incorporate a variety of art media into integrated, creative, well-composed art works. Students demonstrate their knowledge of formal and conceptual issues, composition, color, design, 2-D and 3-D work, as well as responding critically to their own work and the work of others.

The course fulfills 5 credits toward the 5 credit Fine Arts Graduation Requirement.

Suggested Entry Criteria: 2 years of visual art courses or permission of the instructor

AC4002Z Advanced Placement Art and Design - Curriculum AP Grades 11, 12 5 credits

This course aligns directly with the guidelines established by the College Board Advanced Placement in Art program. AP Students can choose from one of three portfolio options: Drawing, 2D Design, or 3D Design. This course is a good choice for highly motivated students who want to create a college-level portfolio that demonstrates quality, a specific concentration on a visual problem, and breadth of knowledge. Students become independent thinkers who create intuitively and critically and who use their art making to express personal thoughts and feelings. Students study major movements in art history, influences of various cultures on the world of art, and artists' writings about their work. Students should be aware that AP work involves significantly more commitment and accomplishment than the typical high school course. Students need to work beyond scheduled periods on weekends and after school. Weekly homework assignments and summer readings are also required. Students are required to take the AP Exam.

The course fulfills 5 credits toward the 5 credit Fine Arts Graduation Requirement.

Suggested Entry Criteria: 2 years of visual art courses or permission of the instructor

AC3588Z Digital Photography I - Curriculum A Grades 10, 11, 12 5 credits

In this course, students learn how to carefully compose, craft and print photographs through digital imaging processes. Students study basic film and digital camera functions and photography equipment: lenses, aperture, depth of field, ASA, shutter speed, lighting, exposure controls, formatting, and file storage, and workflow. Contextual formats, such as point of view, the history of photography, and career opportunities in commercial photography will be explored. Students develop a portfolio of their work and participate in exhibits. Adobe Creative Cloud applications, such as Photoshop and Lightroom room are used as creative editing software.

The course fulfills 5 credits toward the 5 credit Fine Arts Graduation Requirement.

Suggested Entry Criteria: "Foundations in Studio Art" or instructor's permission and this applies to 9, 10, 11 and 12 graders.

AC3590Z Digital Photography II Grades 11, 12 5 credits

This course allows students to further refine their skills in advanced digital imaging techniques to create well-composed images for commercial and Fine Art applications. Students are encouraged to use photography to express personal feelings and ideas. Students study major photographers, historical movements in art, and make interdisciplinary multimedia connections. Students are introduced to digital film, video animation, and interdisciplinary "STEAM projects. Connections with the local cable company, ACMI are made to enhance student's understanding of digital production and broadcasting. Career opportunities in commercial photography are explored. Students present their work in a portfolio and in an exhibition. Adobe Creative Cloud applications such as Photoshop and Lightroom are used as creative editing software. The course fulfills 5 credits toward the 5-credit Fine Arts Graduation Requirement.

Suggested Entry Criteria: Digital Photography I or instructor's permission.

World Languages

The goal of the world languages program is to support students in developing proficiency in a language other than English and to understand the cultures where those languages are spoken, in order to become responsible global citizens. At Arlington High School, students may choose to study from among five* modern and classical world languages: French, Italian, Latin, Mandarin, and Spanish. Our curriculum is aligned with the Massachusetts Frameworks and the World-Readiness Standards for Learning Languages, with an emphasis on oral proficiency

in modern languages and reading comprehension in Latin. All modern language courses are conducted almost exclusively in the target language, with little to no use of English, and students use increasing amounts of target language, starting in level 1.

Students are required to complete two years of language study for graduation, however consecutive years of study of the **same language** is required by most colleges, with many requiring three to four years (deletion here). For this reason, students who choose to change their language after only one year of study may only do so with approval from the Principal. Students who enroll in AP courses are expected to take the AP exam in May.

**Level 1 language courses are offered based on enrollment.*

****Level 1 language courses are offered based on enrollment.***

Suggested criteria for Honors: Successful completion of previous level with a grade of B+ or above and teacher recommendation.

Suggested criteria for Curriculum A: Successful completion of previous level with a grade of C- or above and teacher recommendation.

French

French continues to be a crucial international language, being spoken by over 120 million native and non-native speakers across the globe. It is also the only language besides English that is spoken on five continents and is taught in every country in the world. Arlington High School offers the following courses in French.

ML1015Z French 1 – Introductory

5 credits

This is an introductory course designed for first-year students who begin the study of French in the High School and for students who studied French in the Middle School and would benefit from additional practice of the language. This course aims to develop basic proficiency in the three modes of communication (interpretive, interpersonal and presentational) via the skills of listening to, speaking, reading, and writing of French, as well as to develop understanding of cultures of French speaking countries. The proficiency target for the end of this course is Novice High: students will be able to participate in direct conversations with simple sentences and to satisfy some basic needs.

** Students have the option of earning Honors Credit through more challenging research and project work.*

ML2205Z French 2 – Curriculum A

5 credits

ML2105Z French 2 – Curriculum H

5 credits

This course builds upon and expands students' developing proficiency at the intermediate level in the three modes of communication (interpretive, interpersonal and presentational) via the skills of listening to, speaking, reading, and writing of French, and deepens understanding of cultures of French speaking countries. The proficiency target for the end of this course is Intermediate Low: students will be able to handle basic uncomplicated communication needed in daily life, starting to combine language to express their own thoughts, using sentences and strings of sentences.

ML3205Z French 3 – Curriculum A

5 credits

ML3105Z French 3 – Curriculum H

5 credits

This course builds upon and expands students' developing proficiency at the intermediate level in the three modes of communication (interpretive, interpersonal and presentational) via the skills of listening to, speaking, reading, and writing of French, and deepens understanding of cultures of French speaking countries. The proficiency target for the end of this course is Intermediate Mid (beginning): students will be able to handle basic uncomplicated communication needed in daily life, asking and answering original questions, creating with language to express their own thoughts, using strings of more complex sentences.

ML4205Z French 4 – Curriculum A**5 credits****ML4105Z French 4 – Curriculum H****5 credits**

This advanced intermediate course builds upon and expands students' proficiency at the intermediate level in the three modes of communication (interpretive, interpersonal and presentational) via the skills of listening to, speaking, reading, and writing of French, and deepens understanding of cultures of French speaking countries. The proficiency target for the end of this course is Intermediate Mid (continuing): students will be able to handle basic uncomplicated communication needed in daily life, asks and answering original questions, creating with language to express their own thoughts, on an increasingly broad variety of topics, using strings of more complex sentences.

Students taking the course for Honors credit participate in the Café Parisian competition, in which they develop a business plan for their own Café in a section of Paris.

ML5114Z French 5: French Cinema – Curriculum A**5 credits****ML5115 French 5: French Cinema – Curriculum H****5 credits**

This advanced course builds upon and expands students' at the advanced level in the three modes of communication (interpretive, interpersonal and presentational) through the study French and Francophone cinema. Students watch and analyze films on different themes, review original novels and/or short stories on which the films were based, read film analyses, and develop and present their own opinions in written and oral presentations. The proficiency target for the end of this course is Intermediate High: students will be increasingly able to actively participate in conversations, narrate in past, present, and future with some control, and communicate in paragraphs with suitable accuracy and confidence.

ML5005Z Advanced Placement French Language & Culture**5 credits**

This college-level course builds upon and expands students' proficiency at the advanced level in the three modes of communication (interpretive, interpersonal and presentational). Students read and critique novels, plays, articles, orations, and films, and address cultural perspectives through analysis and description of literature, historical documents, music, dance and theatre. The proficiency target for the end of this course is Intermediate High: students will be able to actively participate in conversations, narrate in past, present, and future with control, and communicate in paragraphs with suitable accuracy and confidence.

Students selecting AP courses must take the corresponding College Board AP course in May in order to receive AP credit for the class.

Italian

Italian is an important heritage language for many Americans. Italy remains a world leader in many important fields, and its economy is one of the top five in the world. According to UNESCO, over 60% of the world's treasures are found in Italy. Arlington High School offers the following courses in Italian..

ML2220Z Italian 2 – Curriculum A**5 credits****ML2120Z Italian 2 – Curriculum H****5 credits**

This course builds upon and expands students' developing proficiency at the intermediate level in the three modes of communication (interpretive, interpersonal and presentational) via the skills of listening to, speaking, reading, and writing of Italian, and deepens understanding Italian culture. The proficiency target for the end of this course is Intermediate Low: students will be able to handle basic uncomplicated communication needed in daily life, starting to combine language to express their own thoughts, using sentences and strings of sentences.

ML3220Z Italian 3 – Curriculum A**5 credits****ML3120Z Italian 3 – Curriculum H****5 credits**

This course builds upon and expands students' developing proficiency at the intermediate level in the three modes of communication (interpretive, interpersonal and presentational) via the skills of listening to, speaking,

reading, and writing of Italian, and deepens understanding of Italian culture. The proficiency target for the end of this course is Intermediate Mid (beginning): students will be able to handle basic uncomplicated communication needed in daily life, asking and answering original questions, creating with language to express their own thoughts, using strings of more complex sentences.

ML4220Z Italian 4 – Curriculum A

5 credits

ML4120Z Italian 4 – Curriculum H

5 credits

This advanced intermediate course builds upon and expands students' proficiency at the intermediate level in the three modes of communication (interpretive, interpersonal and presentational) via the skills of listening to, speaking, reading, and writing of Italian, and deepens understanding of Italian culture. The proficiency target for the end of this course is Intermediate Mid (continuing): students will be able to handle basic uncomplicated communication needed in daily life, asking and answering original questions, creating with language to express their own thoughts, on an increasingly broad variety of topics, using strings of more complex sentences.

Latin

Latin is the foundation of all the romance languages and makes up approximately 60% of English vocabulary. Its profound influence on the thought and culture of Western civilization makes it an important foundation of academic study. Arlington High School offers the following courses in Latin.

 **CL1015Z Latin 1 – Introductory**

5 credits

This is an introductory course designed for first-year students who begin the study of Latin in the High School and for students who studied Latin in the Middle School and would benefit from additional practice of the language. This course aims to develop reading comprehension of Latin texts, primarily narratives written for the modern student, as well as to develop an understanding of the people and contributions of the early Roman Empire. The proficiency target for the end of this course is Novice High: students will be able to read and interpret texts and develop oral proficiency in Latin to support comprehension and skills in reading and writing.

CL1115Z Latin Language and Culture 1A

5 credits

This course, combined with Latin Language and Culture 1B, offers students the opportunity to explore cultural topics in depth while following the Latin 1 syllabus at a slower pace. A wide variety of activities are used to teach and reinforce Latin grammar and vocabulary, as well as English prefixes and roots derived from Latin. Students use the knowledge of Latin vocabulary to broaden their English vocabulary base, and improve their literacy skills in English. The proficiency target for the end of this course is Novice Mid: students will be able to read and interpret some basic texts and understand oral Latin to support comprehension and skills in reading and writing. Students are encouraged to enroll in the two year sequence of courses. Enrollment in this course requires the approval of the Director of World Languages.

CL1116Z Latin Language and Culture 1B

5 credits

This course, a continuation of Latin Language and Culture 1A, offers students the opportunity to explore cultural topics in depth while following the Latin 1 syllabus at a slower pace. A wide variety of activities are used to teach and reinforce Latin grammar and vocabulary, as well as English prefixes and roots derived from Latin. Students use the knowledge of Latin vocabulary to broaden their English vocabulary base and improve their literacy skills in English. The proficiency target for the end of this course is Novice High: students will be able to read and interpret texts and develop oral proficiency in Latin to support comprehension and skills in reading and writing. Enrollment in this course requires the approval of the Director of World Languages.

Upon successful completion of this course, students may enroll in Latin 2A or H, depending on teacher recommendation.

CL2205Z Latin 2 – Curriculum A

5 credits

CL2105Z Latin 2 – Curriculum H

5 credits

This course builds upon and expands students' reading comprehension at the intermediate level in Latin, deepens understanding of social structures of the Roman Empire, and engages students in linguistic comparisons between English and Latin. The proficiency target for the end of this course is Intermediate Low: students will be able to read and interpret texts and increased oral proficiency in Latin to support comprehension and skills in reading and writing.

CL3205Z Latin 3 – Curriculum A

5 credits

CL3105Z Latin 3 – Curriculum H

5 credits

This course builds upon and expands students' reading comprehension at the intermediate level in Latin, deepens understanding of social structures of the Roman Empire, engages students in linguistic comparisons between English and Latin and identifying aspects of Greco-Roman culture in art, architecture and literature. The proficiency target for the end of this course is Intermediate Mid (beginning):students will be able to demonstrate comprehension of the main idea and some supporting details on familiar topics from a variety of texts, and developing oral proficiency in Latin to support comprehension and skills in reading and writing.

CL4205Z Latin 4 – Curriculum A

5 credits

CL4105Z Latin 4 – Curriculum H

5 credits

This advanced course expands students' reading comprehension and translation at the intermediate level in Latin, including major genres such as satire and lyric poetry. The course deepens understanding of social structures and institutions of the Roman Empire, engages students in linguistic comparisons between English and Latin, and identifying aspects of Greco-Roman culture in art, architecture and literature. The proficiency target for the end of this course is Intermediate Mid (continuing):students will be able to demonstrate increasing comprehension of the main idea and some supporting details on familiar topics from a variety of texts, and developing oral proficiency in Latin to support comprehension and skills in reading and writing.

CL5205Z Latin 5 – Curriculum A

5 credits

CL5105Z Latin 5 – Curriculum H

5 credits

This advanced course expands students' reading comprehension at the advanced level in Latin of original pieces of Roman literature, such as the poetry of Virgil and Ovid, and the letters of Cicero and Pliny. The course deepens understanding of Roman history, mythology, art, architecture, and other cultural and historical considerations. The proficiency target for the end of this course is Intermediate High: students will be able to demonstrate increased comprehension of the main idea and supporting details of advanced texts, both familiar and new. Some use of oral Latin, in addition to reading and writing, provides additional support to aid comprehension and appreciation of these texts.

CL5005Z Advanced Placement Latin

5 credits

This college-level course focuses on Vergil's momentous epic poem, *The Aeneid*, and Caesar's memoirs to develop mastery of the Latin language as a medium of literary expression and to examine the phenomenon of language and literary technique as utilized by the premier Roman poet, Virgil, and the premier prose writer, Caesar. The proficiency target for the end of this course is Advanced Low: students will be able to demonstrate increased comprehension of the main idea and supporting details of advanced texts, both familiar and new. Some use of oral Latin, in addition to reading and writing, provides additional support to aid comprehension and appreciation of these texts.

Students selecting AP courses must take the corresponding College Board AP course in May in order to receive AP credit for the class.

Mandarin

Mandarin continues to grow in importance as an international language. Currently, one-fifth of the global population speaks Mandarin Chinese, with over 870 million native speakers worldwide. Arlington High School currently offers the following courses in Mandarin.

ML1000Z Mandarin 1 – Introductory

5 credits

This is an introductory course designed for first-year students who begin the study of Mandarin in the High School and for students who studied Mandarin in the Middle School and would benefit from additional practice of the language. This course aims to develop basic proficiency in the three modes of communication (interpretive, interpersonal and presentational) via the skills of listening to, speaking, reading, and writing of Mandarin, as well as to develop understanding of Chinese culture. The proficiency target for the end of this course is Novice High, with students able to participate in direct conversations with simple sentences and to satisfy some basic needs. Students will be able to use the pinyin spelling system to support comprehension of Chinese characters, use basic Chinese characters and comprehend the four different tones of Mandarin.

** Students have the option of earning Honors Credit through more challenging research and project work.*

ML2215Z Mandarin 2 – Curriculum A

5 credits

ML2115Z Mandarin 2 – Curriculum H

5 credits

This course builds upon and expands students' developing proficiency at the intermediate level in the three modes of communication (interpretive, interpersonal and presentational) via the skills of listening to, speaking, reading, and writing of Mandarin, and deepens understanding of Chinese culture. The proficiency target for the end of this course is Intermediate Low, with students able to handle basic uncomplicated communication needed in daily life, starting to combine language to express their own thoughts, using sentences and strings of sentences. Students will be able to use the pinyin spelling system to support comprehension of Chinese characters, use basic Chinese characters and comprehend the four different tones of Mandarin.

ML3215Z Mandarin 3 – Curriculum A

5 credits

ML3115Z Mandarin 3 – Curriculum H

5 credits

This course builds upon and expands students' developing proficiency at the intermediate level in the three modes of communication (interpretive, interpersonal and presentational) via the skills of listening to, speaking, reading, and writing of Mandarin, and deepens understanding of Chinese culture. The proficiency target for the end of this course is Intermediate Mid (beginning), with students able to handle basic uncomplicated communication needed in daily life, asking and answering original questions, creating with language to express their own thoughts, and using strings of more complex sentences. Students will be able to use the pinyin spelling system to support comprehension of Chinese characters, use basic Chinese characters and comprehend the four different tones of Mandarin.

ML4115Z Mandarin 4 – Curriculum H

5 credits

ML5115Z Mandarin 5 – Curriculum H

5 credits

This advanced intermediate course builds upon and expands students' proficiency at the intermediate level in the three modes of communication (interpretive, interpersonal and presentational) via the skills of listening to, speaking, reading, and writing of Mandarin, and deepens understanding of Chinese culture. The proficiency target for the end of this course is Intermediate Mid (continuing), with students able to handle basic uncomplicated communication needed in daily life, asking and answering original questions, creating with language to express their own thoughts, on an increasingly broad variety of topics, using strings of more complex sentences. Students will be able to use the pinyin spelling system to support comprehension of Chinese characters, use basic Chinese characters and comprehend the four different tones of Mandarin.

Spanish

The importance of studying Spanish can be seen all around us. There are over 30 million people of Hispanic origin living in the United States alone. Arlington High School offers the following courses in Spanish.

ML1010Z Spanish 1 – Introductory **credits**

5

This is an introductory course designed for first-year students who begin the study of Spanish in the High School and for students who studied Spanish in the Middle School and would benefit from additional practice of the language. This course aims to develop basic proficiency in the three modes of communication (interpretive, interpersonal and presentational) via the skills of listening to, speaking, reading, and writing of Spanish, as well as to develop understanding of cultures of Spanish speaking countries. The proficiency target for the end of this course is Novice High: students will be able to participate in direct conversations with simple sentences and to satisfy some basic needs.

** Students have the option of earning Honors Credit through more challenging research and project work.*

ML2210Z Spanish 2 – Curriculum A **5 credits**

ML2110Z Spanish 2 – Curriculum H **5 credits**

This course builds upon and expands students' developing proficiency at the intermediate level in the three modes of communication (interpretive, interpersonal and presentational) via the skills of listening to, speaking, reading, and writing of Spanish, and deepens understanding of cultures of Spanish speaking countries. The proficiency target for the end of this course is Intermediate Low: students will be able to handle basic uncomplicated communication needed in daily life, starting to combine language to express their own thoughts, using sentences and strings of sentences.

ML3210Z Spanish 3 – Curriculum A **5 credits**

ML3110Z Spanish 3 – Curriculum H **5 credits**

This course builds upon and expands students' developing proficiency at the intermediate level in the three modes of communication (interpretive, interpersonal and presentational) via the skills of listening to, speaking, reading, and writing of Spanish, and deepens understanding of cultures of Spanish speaking countries. The proficiency target for the end of this course is Intermediate Mid (beginning): students will be able to handle basic uncomplicated communication needed in daily life, asking and answering original questions, creating with language to express their own thoughts, using strings of more complex sentences.

ML4210Z Spanish 4 – Curriculum A **5 credits**

ML4110Z Spanish 4 – Curriculum H **5 credits**

This advanced intermediate course builds upon and expands students' proficiency at the intermediate level in the three modes of communication (interpretive, interpersonal and presentational) via the skills of listening to, speaking, reading, and writing of Spanish, and deepens understanding of cultures of Spanish speaking countries. The proficiency target for the end of this course is Intermediate Mid (continuing): students will be able to handle basic uncomplicated communication needed in daily life, asking and answering original questions, creating with language to express their own thoughts, on an increasingly broad variety of topics, using strings of more complex sentences.

ML5210Z Spanish 5: Spanish Cinema – Curriculum A **5 credits**

ML5110Z Spanish 5: Spanish Cinema – Curriculum H **5 credits**

This advanced course builds upon and expands students' developing proficiency at the advanced level in the three modes of communication (interpretive, interpersonal and presentational) through the study of Spanish and Hispanic cinema. Students watch and analyze films from different geographical areas of the Spanish-speaking world, review original novels and/or short stories on which the films were based, read film analyses, and develop and present their own opinions in written and oral presentations. The proficiency target for the end of this course is Intermediate High: students will be increasingly able to actively participate in conversations, narrate in past, present, and future with some control, and communicate in paragraphs with suitable accuracy and confidence.

ML5305Z Advanced Placement Spanish Language **5 credits**

This college-level course builds upon and expands students' proficiency at the advanced level in the three modes of communication (interpretive, interpersonal and presentational). Students read and critique novels, plays,

articles, orations, and films, and address cultural perspectives through analysis and description of literature, historical documents, music, dance and theatre. The proficiency target for the end of this course is Advanced Low: students will be able to actively participate in conversations, narrate in past, present, and future with control, and communicate in paragraphs with suitable accuracy and confidence.

Students selecting AP courses must take the corresponding College Board AP course in May in order to receive AP credit for the class.

Global Competence Program

The **Global Competence Program (GCP)** is designed to foster students' global awareness, and, in so doing, provide AHS graduates with the essential skills for participating in and contributing to an increasingly globalized society. Through coursework, community service, a global engagement project, and foreign travel*, GCP participants will:

- **Think Globally:** Have an increased knowledge of their relationship to the world; think about issues from a global perspective; gain an appreciation for other world cultures, viewpoints and perspectives.
- **Communicate Effectively:** Improve their foreign language skills and their ability to communicate with people across cultural and language divides.
- **Contribute Responsibly:** Use their global knowledge to interact and build relationships with people from other cultures; actively seek world knowledge to develop their own values and perspectives; demonstrate respect, open mindedness, understanding and flexibility in behavior and thinking; help others to embrace multiple perspectives.
 - * Students who are unable to participate in travel may complete an alternative project.

The Global Competence Program is open to all students and students are encouraged to submit their Initial Application early in their high school career in order to have time to complete all required components. Upon successful completion, students will be awarded a **Global Competence Certificate** and pin for graduation.

Additional information can be found at arlingtonworldlanguages.blogspot.com and by contacting Dawn Carney, Director of World Languages.

Seal of Biliteracy

The **Seal of Biliteracy** is a distinction that encourages students to pursue literacy in two or more languages, honors the language skills our students attain, and serves as evidence of skills that are attractive to future employers and college admissions offices. Students meeting the Massachusetts Department Elementary and Secondary Education requirements for the Seal of Biliteracy will receive this designation in the form of an insignia affixed to their transcript or diploma during senior year. Arlington also partners with the Language Opportunity Coalition to offer supporting biliteracy awards.

Additional information can be found at arlingtonworldlanguages.blogspot.com and by contacting Dawn Carney, Director of World Languages.

World Languages Electives

The following courses are open to **sophomores, juniors and seniors** as electives, and do not count toward the two year language graduation requirement.

Digital Language Courses – Curriculum H

Students who are interested in learning a language that is not currently offered at Arlington High School may enroll in a fee-based online course through Brigham and Young University Independent Study program. While primarily an independent study course, weekly participation in the online learning activities, supervision by a World Language teacher, and weekly mandatory meetings for the first quarter are required. These courses are most successful for students who are highly motivated, independent and active learners; possess strong organizational and time management skills; have discipline to study without external reminders; and can adapt to new learning environments.

Registration payment to Brigham and Young University is required before the school year begins to reserve a place in the course; students may also be required to purchase a textbook. Students must have the approval of a school counselor and the World Language Director prior to enrolling in a course.

Please note there is a fee associated with this course. If interested please contact Dawn Carney, Director of World Languages.

OL7000Z Arabic 1 – Part 1 (5 credits)

OL7020Z Arabic 1 – Part 2 (5 credits)

OL7030Z Arabic 2 – Part 1 (5 credits)

OL7040Z Arabic 2 – Part 2 (5 credits)

OL7011Z American Sign Language 1 – Part 1 (5 credits)

OL7021Z American Sign Language 1 – Part 2 (5 credits)

OL7031Z American Sign Language 2 – Part 1 (5 credits)

OL7041Z American Sign Language 2 – Part 2 (5 credits)

OL7012Z German 1 – Part 1 (5 credits)

OL7022Z German 1 – Part 2 (5 credits)

OL7013Z German 2 – Part 1 (5 credits)

OL7023Z German 2 – Part 2 (5 credits)

OL7014Z Japanese 1 – Part 1 (5 credits)

OL7024Z Japanese 1 – Part 2 (5 credits)

OL7015Z Japanese 2 – Part 1 (5 credits)

OL7025Z Japanese 2 – Part 2 (5 credits)

OL7018Z Korean 1 – Part 1 (5 credits)

OL7028Z Korean 1 – Part 2 (5 credits)

OL7019Z Korean 2 – Part 1 (5 credits)

OL7029Z Korean 2 – Part 2 (5 credits)

OL7106Z Russian 1 – Part 1 (5 credits)

OL7026Z Russian 1 – Part 2 (5 credits)

OL7017Z Russian 2 – Part 1 (5 credits)

OL7027Z Russian 2 – Part 2 (5 credits)

ML7102Z World Language Teaching Internship

Grades 11,12

2.5 credits

ML7103Z World Language Teaching Internship

Grades 11,12

5 credits

11th or 12th grade students with an interest in a career in education or a desire to assist other students may enroll in this course with the approval of a world language teacher and the World Language Director. Students in this

program will be paired with a language teacher to assist students in a designated language course. Responsibilities will include helping with the teacher’s administrative tasks and providing individual assistance to students. Hours may be counted as community service. Appropriate proficiency in the target language is required.

Technology, Self-Directed Courses and Miscellaneous Electives

Levels	Curriculum A	Ungraded courses
Grade 9		FR9999Z Freshman Seminar
Grades 9-12	Massive Open Online Courses (MOOC)	
Grades 11-12		CD6000Z Technology Intern AP9999Z AP Seminar IS0000Z Independent Study (request form)
Grade 12	IN5001Z Academic Internships	SP0000Z Senior Privilege

Massive Open Online Course (MOOC) Grade 12 **1.25 credits**

Arlington High School is piloting the use of Massive Open Online Courses (MOOCs) to expand our offerings. As the online world gives us access to courses, content, and teachers all around the world, we are working to discover new ways to take advantage of this potential.

A MOOC may be proposed by Faculty or Students (Juniors and Seniors). The courses we are using are offered through Coursera (www.coursera.org). We may expand to other providers in the future. Course proposals will be evaluated by administration based on students served, whether they enhance our existing offerings, the quality and appropriateness of the content, and school resources available. As Coursera courses vary in terms of their scope and rigor, they may be approved for from 0.5 to 5 credits. Most will be offered at the AP level weight. MOOCs at Arlington High School require a combination of participation in the online activities, supervision by an approved faculty member, and weekly one-hour mandatory meetings after school. Upon completion of the 6 week course, students will be awarded a completion certificate from Coursera, and a grade to appear on their AHS transcript. All required materials and fees will be paid by AHS.

If you are interested, send a proposal to the Principal stating:

1. The course you are interested in
2. The names of any interested students or faculty
3. The reason for choosing this course (students served, enhancement of our offerings, quality/appropriateness of the content)
4. A proposed timeline
5. A statement of resources needed (budget, equipment, facilities, time, schedule)

IN5001Z Academic Internship Grade 12 **2.5 credits**

Academic Internships allow seniors to pursue an area of interest in a community-based work situation. Participation in the program will require an application and placement in an appropriate work situation as deemed

by Arlington High School and the internship Coordinator. Through this program, eligible seniors will be released for the last period of the day for one semester to participate in a 5-hour per week internship off-site. Students will present a completed project at a public showcase at the end of the semester. Students will receive a grade and 2.5 credits, at honors weight upon, successful completion of the program.

Further information, including a listing of approved internship placement sites and the application will be available during course selection. Contact Melanie Konstandakis (mkonstandakis@arlington.k12.ma.us) with questions. We welcome recommendations of possible internship sites.

IS0000Z Independent Study

Grades 11, 12

No credits

Independent Study allows students to manage their study time when it occurs in first or last period of the day at home or in the school cafeteria or media center. Students on Independent Study are monitored by the AHS Dean's who will assign them to Directed Study if their grades fall below a passing level or if a parent or teacher requests such a transfer.

SP0000Z Senior Privilege

Grade 12

No credits

Senior Privilege allows students the opportunity to manage their study time in the school cafeteria or library media center. Seniors may also use senior privilege to assist teachers and counselors or to participate in activities such as Yearbook. Seniors who are failing any major subjects will lose senior privilege and be assigned to additional tutoring support or directed study.

AP9999Z AP Seminar

No credits

Students who are taking AP courses can take this seminar class for no credit. It provides an opportunity for students to support each other, work together in Study Groups, and collaborate on projects. Students will be assigned to a designated workspace provided just for them.

FR9999Z Freshman Seminar

Grade 9

1.25 credits

Grade 9 students will meet 3 times per cycle opposite their PE classes to participate in a variety of orientation activities and skill development to support them as they transition into high school. Seminar will be presented in modules presented by a variety of high school staff. Directed study time will also be incorporated into the seminar. Some topics included in the program are:

- Orientation to high school
- School Counseling seminars
- Study Skills
- Research skills
- Technology Skills
- Stress Management
- ICARE

The Workplace Alternative Program

The Workplace alternative program, housed on the campus of Arlington High School, has three major components: academic, social/emotional support, and community involvement. The core curriculum meets the requirements of graduation from Arlington High School and is in alignment with the frameworks in Massachusetts. The academic component covers English, history, mathematics, science, and physical education. Social/emotional support is offered through the Omni course, small class sizes, and continued support from trained counselors, (Arlington High School Counseling and Arlington Youth Consultation Center). Also, in addition to their role as teachers, the Workplace faculty also serves as academic and career advisors. The Workplace program takes on many community service projects throughout the year with the goal of creating a sense of investment and pride in Arlington.

Workplace is a relationship-based program. Therefore, students who enter this program must be able to form meaningful relationships with adults. Students who are not appropriate for this program are those who are drug addicted, unwilling to participate in their own education, and those who are not committed to change. This program is a choice for the student to decide who they are and who they will become and that academic pursuit is worthwhile. The student decides that his or her attitude, behavior, and/or belief systems are open to change and the student is willing to explore and keep their options open for the future.

Workplace is an alternative regular education program at AHS to meet the needs of those students who benefit from learning in a different environment than the one provided in the traditional high school. The Workplace focuses primarily on relationship building within the parameters of academic growth, social responsibility, emotional health, community awareness, and career possibilities. Classes for Workplace students are small, individualized and structured. The Workplace program offers a combination of challenging classroom experiences and specialized services. A major component of the program is centered in the Omni Class where students work on self-awareness, group trust, leadership, and community service.

Placement Procedures and Criteria

Interested students are admitted to the program through an interview process involving the student, the student’s parent(s) and/or guardian(s), the Workplace staff and interested parties such as the student’s School counselor or referring faculty member. Students may be referred to the program from various sources from within the school including the AHS Student Support Team. A student may inquire about the program through his or her school counselor. Spaces are limited and, therefore, admittance to the program is not always possible. Students who enter this program do so voluntarily with a commitment to the program ideals of academic achievement and planning toward the pursuit of a productive future after graduating from high school. All admissions are on a trial basis and continued participation in the program is contingent upon compliance with the contractual obligations.

In general, the students in the Workplace meet the following criteria:

- The student is of average or above average cognitive ability.
- The student is seeking post high school education, whether it is college, continued academic pursuit, or vocational setting.
- The student shows motivation to improve skills and complete high school.
- The student agrees to the program contract.

Workplace Course Offerings

English, History, and Science courses are offered at the Curriculum A level. Mathematics is at the Curriculum B level, all of which satisfy the Massachusetts Curriculum Frameworks. Curriculum matches topics offered in traditional academic courses at Arlington High School.

Levels	ELA	Math	History	Science	Electives
Grade 9	TW1210Z English 1	TW1320Z Algebra 1 Curr. A			SP7831Z Academic Support X3 TW1277Z Wellness TW9091 OMNI-A TW9092 OMNI-B

Grade 10	TW2210Z English 2		TW3245Z US History I	TW2215Z Biology	
Grades 11-12	TW3210Z English 3	TW2320Z Geometry B	TW3246Z US History II	TW1230Z Earth Science	
Grade 12	TW4210Z English 4	TW1310Z Math Applications B	TW3240Z History of Arlington		

Specialized Programs

In order to offer a comprehensive continuum of programming for young adults with disabilities, Arlington Public Schools has developed several specialized programs that provide combinations of specialized and mainstream classes for identified students. Facilitated with supports including special education teachers, tutors, teaching assistants and social workers, identified students are able to prepare for post-secondary transition to college and/or employment situations. Students are identified for one of the specialized programs through recommendations from the evaluation team and the IEP process and have a disability diagnosis and academic profile that fits a particular program.

- **Language Based Learning Disabilities Support Program**
- **Supported Learning Center A**
- **Supported Learning Center B**
- **Supported Learning Center C**

Courses offered in specialized programs

ELA

- Language Arts I
- Language Arts II
- Language Arts III
- Language Arts IV
- Contemporary Literature
- British Literature
- American Literature

History

- Mod. World History B
- US History I B
- US History II B

Math

- Algebra I
- Algebraic Concepts
- Geometry
- Consumer Math

Science

- Concepts in Physical Science
- Concepts in Biology
- Concepts in Chemistry B

***The structure of all specialized programs and support services are currently being reorganized and revamped to better meet the individual needs of all students on Individual Education Plans. Course descriptions will be disseminated once they have been revised.

This section of the POS will be updated once the new structure has been fully developed.

Arlington Public Schools Technology Graduation Standards

Achievement of these competencies is arrived at through use of technology in various classes across the curriculum. Students are expected to know several skills in each area listed below upon graduation.

Computer Ethics

- Explain and demonstrate understanding of classroom rules regarding responsible use of computers (2.6)
- Explain and demonstrate ethical and legal behavior in copying files, applications, and media (2.7)
- Explain potential problem of computer viruses and exercise caution in opening e-mail attachments from unknown sources; class e-mail account only (2.8)
- Explain safe practices for sharing personal information via e-mail and the Internet (2.9)
- Explain proper mail etiquette (2.10)
- Describe and demonstrate knowledge of the school's Acceptable Use Policy, and know the consequences of violating that policy (2.11)
- Validate a Website for authenticity; find site sponsor, author, date the site was last updated (2.12)
- Explain how media and technology can be misused to distort or exaggerate information (2.13)
- Write correct citations for text and images gathered from electronic sources. Understand that use of materials is limited by the fair use rule of copyright law (2.14)
- Develop an awareness of the issue of ergonomics and how to use equipment safely (2.15)

Computer Skills

- Identify and use drawing and painting applications as appropriate for class projects (1.33).
- Run multiple applications simultaneously, alternating among them (1.36)
- Identify and use basic features of computer operating system, e.g., format/initialize disks, access information on size and format of file, create folders on local hard drive (1.12)
- Save a file to the desktop, the hard drive, and external storage spaces, e.g., floppy disk, CD-ROM, virtual electronic space (1.13)
- Resolve commonly occurring error messages and hardware and software problems (1.37)
- Use a variety of external peripherals and understand how they connect to the computer (1.40)
- Perform efficient keyboarding technique (1.41)
- Identify and use methods for downloading and converting graphic, sound, and video files (1.38)
- Select the appropriate technology tool for the task (1.60)
- Select a printer and print a document with appropriate page setup and orientation (1.14).
- Operate peripheral equipment, e.g., scanner, digital camera, camcorder (1.15)

Word Processing

- Identify and use editing and formatting features of a word processing program, e.g., centering, line spacing, margins, cut and paste, fonts, styles, spelling, page numbers (1.17)
- Insert images (e.g., graphics, clip art, tables) from other files into word-processed document (1.18)

- Import/import and link data between word process and other application (1.42)

Spreadsheet

- Describe structure and function of database, identify components (1.19)
- Create a database, defining field formats and adding records (1.20)
- Perform simple operations in a database (1.21)
- Use formulas in a spreadsheet (1.47)
- Customize formatting of charts or graphs (1.49)
- Define and use functions such as sort, filter, find (1.50)
- Describe structure and function of a spreadsheet (1.22)
- Create an original spreadsheet, entering simple formulas (1.23)
- Produce simple charts from a spreadsheet (1.24)
- Duplicate spreadsheet structure without data (1.43)
- Use features of spreadsheet such as mail merges (1.44)
- Import/link data between spreadsheet and other applications (1.45)
- Use advanced format features such as repositioning columns (1.46)
- Create multiple links among various pieces of information in different applications such as a chart imported into a word processor from a spreadsheet (3.18)
- Use various number formats, percentages, exponents, etc. (1.51)

Internet

- Identify and use navigation features of browser (1.25)
- Using a browser, “bookmark” a Web site, e.g., URL, hyperlinks, site map, etc. (1.26)
- Identify basic elements of a Website, e.g., URL, hyperlinks, site map, etc. (1.27)
- Copy an image from a Website into a file on the desktop; write a correct citation in keeping with copyright law (1.28)
- Organize bookmarks into folders for future reference (1.52)
- Open e-mail attachment from class account and save it to the desktop (1.30)
- Using e-mail, create an address book (1.55)
- Send e-mail attachment using class account (1.56)
- Using e-mail, create and send a message using class account (1.29)
- Using e-mail, using a class account, to communicate with other schools (3.11)

Multimedia

- Create a multimedia presentation, desktop-published report, or Web page that incorporates data from other files (1.57)
- Create and manipulate illustrations using a drawing or painting program, e.g., adjust scale, size shape (1.58)
- Communicate results of research and learning with others using the most appropriate tools, e.g., desktop-published or word-processed report, multimedia presentation (3.9)
- Use a variety of external peripherals and understand how they connect to a computer (1.40)
- Manipulate data using charting tools and graphic organizers, e.g., concept mapping, flowcharting, and outlining software, to connect ideas (3.10)
- Present information, ideas, and results of work using any of a variety of communications technologies, e.g., multimedia presentations, web pages, videotapes, desktop-published documents (3.15)
- Import graphics, photos, and other media into report or presentation, citing sources appropriately (3.16)
- Demonstrate how specialized technology tools can be used for problem-solving, decision-making, and creativity, e.g. simulation software, environmental probes, computer-aided design, graphing calculators, art and music composition software (3.19)

Research

- Routinely evaluate Websites for authenticity when using them (3.14)
- Explain effective search strategies to locate and retrieve electronic information, e.g. understand and use syntax and Boolean logic operators (1.54)
- Identify capabilities of technology resources and understand how they can be used for lifelong learning (1.59)
- Know how to select and use search engines. Understand the differences between search engines (1.53)

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