

**THE ARLINGTON HIGH SCHOOL PROGRAM OF STUDIES
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Dear Arlington Families:

Welcome to the High School Program of Studies for Arlington Public Schools! We hope you will use this document as a reference and a guide as you plan your high school sequence of courses. The Program of Studies provides students and parents both general and specific information about curricular offerings and services at the comprehensive high schools, the Career Center, and within our alternative programs. In our efforts to achieve clarity and conciseness, we have written brief, objective descriptions of many of the elements of the high schools. You can obtain more information on topics by calling your high school counseling services office:

Arlington Community High School	703 / 228-5350
Wakefield High School	703 / 228-6702
Washington-Lee High School	703 / 228-6250
Yorktown High School	703 / 228-5363
Career Center	703 / 228-5800

Students have many choices as they pursue their interests and expand their experiences. The student, the parents, and the counselor should work together to plan the four years of high school and to make appropriate revisions along the way. The student's long-range goals and interests as well as the requirements for graduation should guide the decision-making. The 2017-2018 Program of Studies supports that process. Additionally, collaboration with the Offices of Counseling Services will reveal many other supports. For example, the schools provide small-group tutorial assistance in many subject areas in which students may need additional support.

At the conclusion of this booklet, you will find listings of courses offered at individual high schools. These courses reflect the unique directions that high schools have taken in meeting the specific needs of their students and in capitalizing on the strengths and interests of their staffs.

We encourage you to maintain communication with your school through orientations, Back-to-School Night, and other scheduled opportunities. You may also call and schedule an individual appointment.

We hope you take advantage of the many opportunities available to you during your years in high school.

Sincerely,

Tara Natrass
Assistant Superintendent, Instruction

PROGRAM PLANNING

A careful review of the Program of Studies will familiarize parents and students with curriculum offerings and school services and facilitate planning of comprehensive programs to meet both graduation and personal requirements. The Department of Counseling Services can assist in answering questions related to planning programs. Counselors will meet with students (middle school counselors will meet with rising ninth graders; high school counselors will meet with rising tenth, eleventh, and twelfth graders) during February and March to develop program plans and will schedule parent conferences upon request. Some guidelines to assist in program planning follow.

Seven Period Day All students must enroll in seven periods which may include courses taught at the Career Center. In extraordinary circumstances, the student may receive a waiver to allow an abbreviated attendance schedule.

Course Selections Selecting a course of study is a cooperative venture which requires careful consideration by parents, teachers, counselors, and the student. When selecting a course of study, consider graduation requirements and future interests. It is our intent to not limit students' post high school choices which may include permanent employment immediately after high school, a career in the armed services, a business or technical school, and/or additional education at a two- or four-year college. Therefore, you will find a rich set of courses and opportunities from which to choose.

Alternative Course Selections Courses with insufficient enrollment will either be combined or canceled. Therefore, proper planning also includes consideration of alternative course selections. Scheduling conflicts may necessitate scheduling alternative courses. If a course is canceled at the home school, a student may enroll in the course at another school in the county provided space is available. Transportation may need to be provided by the parent. Every effort will be made to accommodate student interests and needs when courses are canceled or conflicts occur. In some cases, courses with insufficient enrollment may be offered through distance learning.

Preparation for Rigorous Courses Arlington Public Schools encourages all students to enroll and succeed in advanced courses. Successful participation in advanced courses instills in students a sense of accomplishment, increased self-esteem, improved study skills, and a greater foundation for success in subsequent advanced courses and for life beyond school. It is not however, enough for students to simply desire to enroll in advanced courses. A solid foundation of knowledge and skills is imperative and is a great predictor of success in advanced courses.

Therefore, it is important that students strive to do their very best in all courses in order to build a solid foundation for academic success. This includes developing effective study habits, completing assignments, meeting deadlines, asking for help or putting in extra time when it is needed, and being successful in fundamental and prerequisite courses that serve as the foundation for advanced courses. Doing one's best also includes doing more than the minimal requirements for classes by completing projects or other enriching or skill-building activities. Students and parents are encouraged to work closely with teachers and counselors to build, support, and promote these skills in order to maximize opportunities for enrolling in and being successful in advanced courses. All Grade 9 students in consultation with counselors and parents are required to complete a four-year plan and to update and refine that plan as they progress through high school.

Advanced courses in high school are enriched or accelerated courses, which might be labeled "intensified" or other such label or might lead to an industry certification. The following table presents three such examples of how rigorous course selections in Grade 9 or Grade 10 might impact the course options and opportunities for students in Grades 11 or 12.

Course:	Implication:
Geometry	The sequence of mathematics courses is Algebra I, Geometry, Algebra II, and beyond. A student interested in Advanced Placement science courses in Grade 11 or 12 would take Intensified Chemistry in Grade 10. (Advanced Placement courses allow students to earn college credits while in high school.) Algebra II is a co-requisite for Intensified Chemistry. Therefore, a student who did not take Geometry in Grade 9 would need to take it in summer school as New Work for Credit in order to enroll in Intensified Chemistry in Grade 10 and an advanced placement science class in Grade 11 or 12.
Spanish II	Taking Spanish II in Grade 9 enables a student to take Spanish III, IV, and even V in Grades 10, 11, and/or 12 or to take at least two years of another language in high school. Note that for an Advanced Studies diploma, a diploma more favorable for college admission, three years of one or two years each of two different foreign languages is required.
Industry Certification	Students who complete Automotive Technology I, II, and III with a B or better can earn associate degree credits and may take the National Institute for Automotive Service Excellence (ASE) certification exam for obtaining industry certification.

Students and parents should work closely with counselors to insure that the four-year plan includes the prerequisites and subsequent advanced courses. Such participation improves opportunities for students by keeping post high school choices available.

Course Changes

The student benefits from a well-planned schedule which addresses individual needs and does not require later adjustments that might disrupt the learning process. Commitments for staff, textbooks, and supplies are made based upon the courses selected, and, therefore, schedule changes are discouraged. If there are extenuating circumstances, requests for schedule changes are carefully reviewed, based on the following:

- student has successfully completed course in summer school.
- scheduling error has occurred, e.g., requested Spanish III, scheduled for French III.
- student has changed career goal, as confirmed by counselor.
- student has been scheduled for the same teacher as previous year and desires change.
- student has been scheduled for a course which is not compatible with abilities, e.g., Geometry to Principles of Geometry or vice versa.

Exceptions to Course Prerequisites

Students have the opportunity to enroll in advanced courses that may have suggested course prerequisites. The prerequisites are listed to help communicate to students and families what skills or experience may be needed to ensure a student's success in a course. Parents may still enroll their students in these courses. Parents should discuss their preferences with members of the school staff, especially with their child's counselor. The purpose of soliciting this feedback is to ensure student success and help parents be aware of the academic rigor and requirements of these courses. If a parent decides to enroll a student in a course that was not initially recommended for the student, the parent should notify the school staff of this decision before the end of the school year.

SPECIAL PROGRAM ARRANGEMENTS

Acceleration Through School

Learning experiences may be arranged to permit students who learn more rapidly to accelerate their progress through school. Summer school offerings, cross-grade level groupings, electives, or any combination thereof may be used to accelerate progress.

Acceleration Through Content

Students are encouraged to move to advanced levels of study or to more extensive studies through individualized instruction, cross-grade level groupings, competency testing and placement, electives, and extended course offerings.

Concurrent Enrollment

Concurrent enrollment in high school and High School Continuation is permitted with appropriate authorization for the purpose of accelerating and/or enriching the high school program and on a space available basis.

Independent Study

Independent study allows highly able and highly motivated students to explore an area of intense interest which is not offered in the high school program of study. Independent study, including research, self-directed courses, internships, and volunteer or paid work experience, may be approved for high school credit by the high school principal under conditions specified in advance. In general, independent study is comparable to the scope of an online course. Students may apply for an Independent Study by completing the application process available through the Office of Counseling Services during the spring preceding the year in which the Independent Study will occur.

PROFESSIONAL SCHOOL COUNSELORS

MISSION:

The mission of Arlington Public Schools (APS) counselors is to provide a comprehensive school counseling program that will assist all students in acquiring the skills, knowledge, and attitudes needed to become effective students, responsible citizens, productive workers, and lifelong learners.

The APS School Counseling Program is aligned with the school district's five Strategic Plan Goals: 1) ensure every student is challenged and engaged; 2) eliminate achievement gaps; 3) recruit, retain, and develop high quality staff; 4) provide optimal learning environments; 5) meet the needs of the whole child. The Strategic Plan Goals are an integral part of each school's total program with a commitment to individual uniqueness, an understanding of multicultural diversity and the maximum development of human potential.

The counseling program addresses the academic, career and social/emotional needs of all students. Our ultimate goal is for students to graduate from the Arlington Public Schools system with the competencies necessary to be able to make self-directed, realistic, and responsible decisions and to be successful contributors to society. This supports the school system's goal of preparing students to live and work in a global society.

PROVISION OF SERVICES:

Arlington Public School's Counseling Program staff is committed to delivering a national standards-based program of school counseling services which enables students to achieve success in schools. Comprehensive school counseling services are delivered across three domains: academic development, career development, and social/emotional development. In keeping with the most recent trends in delivering effective school counseling services as delineated in the American School Counselor Association (ASCA) Model; the framework for delivery of services focuses on classroom lessons, individual student planning, responsive services, and system support. Thus, school counseling services are provided through school-wide evidence-based curriculum delivered through classroom lessons, individual student planning, responsive activities with students including consultation and collaboration with colleagues and other stakeholders, as needed, program management and professional development.

Professional school counselors work with students individually, in small groups, and through classroom lessons. Parental permission is required for students to participate in either structured individual or small group counseling sessions, except in cases of crisis intervention or when parent/guardians cannot be reached after documented efforts. Parents/guardians are encouraged to meet with the school counselor if they have concerns about their student's academic, social/emotional, and/or career development. A parent/guardian may request in writing that their child not participate in school counseling services.

ASPIRE2EXCELLENCE



Aspire2Excellence is the academic planning initiative designed to provide families with information as they are planning for their child's future in APS. Aspire2Excellence underscores the importance of every student taking rigorous courses and meeting rigorous graduation requirements in order to ensure college and career readiness after high school. For more information about Aspire2Excellence, contact your child's school counselor and/or go to www.apsva.us/academicplan and www.apsva.us/collegecorner.

GRADUATION REQUIREMENTS

The requirements for a student to earn a diploma and graduate from a Virginia high school shall be those in effect when that student enters Grade 9 for the first time. Students shall be awarded a diploma upon graduation from a Virginia high school.

When students below Grade 9 successfully complete courses offered for credit in grades 9 through 12, credit shall be counted toward meeting the standard units required for graduation. To earn a verified unit of credit for these courses, students must meet the requirements of the Virginia Standards of Quality ([8VAC20-131-110](#)).

The following requirements shall be the only requirements for a diploma, unless a local school board has prescribed additional requirements that have been approved by the Board of Education. All additional requirements prescribed by local school boards that have been approved by the Board of Education remain in effect until such time as the local school board submits a request to the board to amend or discontinue them.

Please note that the following diploma types are available for students who are first entering Grade 9 2013-2014 and beyond:

- Standard Diploma
- Advanced Diploma

Please note that the following diploma types are available for students who are first entering Grade 9 *prior* to 2013-2014:

- Standard Diploma
- Standard Technical Diploma
- Advanced Diploma
- Advanced Technical Diploma
- Modified Standard Diploma

Please see the appropriate graduation requirements for your student's Grade 9 entry year.

Requirements for a Standard Diploma.

- Beginning with the *ninth-grade class of 2013-2014 and beyond*, students shall earn the required standard and verified units of credit described in subdivision 2 of this subsection.
- Credits required for graduation with a Standard Diploma.

Discipline Area	Standard Units of Credit Required	Verified Credits Required
English	4	2
Mathematics ¹	3	1
Laboratory Science ^{2,6}	3	1
History and Social Sciences ^{3,6}	3	1
Health and Physical Education	2	
Foreign Language, Fine Arts or Career and Technical Education ⁷	2	
Economics and Personal Finance	1	
Electives ⁴	4	
Student Selected Test ⁵		1
Career and Technical Education Credential ⁸		
Total⁹	22	6

¹Courses completed to satisfy this requirement shall include at least two different course selections from among: Algebra I, Geometry, Algebra, Functions, and Data Analysis, Algebra II, or other mathematics courses above the level of Algebra II. The board shall approve courses to satisfy this requirement.

²Courses completed to satisfy this requirement shall include course selections from at least two different science disciplines: earth sciences, biology, chemistry, or physics, or completion of the sequence of science courses required for the International Baccalaureate Diploma. The board shall approve courses to satisfy this requirement.

³Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and one course in either world history or geography or both. The board shall approve courses to satisfy this requirement.

⁴Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.

⁵A student may utilize additional tests for earning verified credit in computer science, technology, career and technical education, economics or other areas as prescribed by the board in [8VAC20-131-110](#).

⁶Students who complete a career and technical education program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification or an occupational competency credential from a recognized industry, or trade or professional association, or acquires a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification, competency credential, or license for (i) the student-selected verified credit and (ii) either a science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the Board of Education as an additional test to verify student achievement.

⁷Pursuant to § [22.1-253.13:4](#) of the *Code of Virginia*, credits earned for this requirement shall include one credit in fine or performing arts or career and technical education.

⁸Students shall earn a career and technical education credential approved by the Board of Education that could include, but not be limited to, the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness assessment.

⁹Students shall successfully complete one virtual course, which may be a noncredit-bearing course or a required or elective credit-bearing course that is offered online. APS Policy **20-3.200 Alternative Delivery of Instruction** requires that any course taken by a student by a provider other than Arlington Public Schools must be pre-approved for credit through the school's counseling office prior

to a student taking a course for high school credit. High school credit will not be awarded towards graduation requirements without preapproval. Please see Appendix D for more information on this requirement.

Accommodations for Students with Disabilities: Credit accommodations for the Standard Diploma shall be determined by the students' Individualized Education Program (IEP team) or 504 plan committee, including the student where appropriate, at any point after the student's eighth grade year. The school must secure the informed written consent of the parent/guardian and the student, as appropriate, to choose credit accommodations after review of the student's academic history and full disclosure of the student's options. See your counselor for more information.

Requirements for an Advanced Studies Diploma.

1. Beginning with *the ninth-grade class of 2013-2014 and beyond*, students shall earn the required standard and verified units of credit described in subdivision 2 of this subsection.
2. Credits required for graduation with an Advanced Studies Diploma.

Discipline Area	Standard Units of Credit Required	Verified Credits Required
English	4	2
Mathematics ¹	4	2
Laboratory Science ²	4	2
History and Social Sciences ³	4	2
Foreign Language ⁴	3	
Health and Physical Education	2	
Fine Arts or Career and Technical Education	1	
Economics and Personal Finance	1	
Electives	3	
Student Selected Test ⁵		1
Total⁶	26	9

¹Courses completed to satisfy this requirement shall include at least three different course selections from among: Algebra I, Geometry, Algebra II, or other mathematics courses above the level of Algebra II. The board shall approve courses to satisfy this requirement.

²Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry, or physics or completion of the sequence of science courses required for the International Baccalaureate Diploma. The board shall approve additional courses to satisfy this requirement.

³Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and two courses in either world history or geography or both. The board shall approve additional courses to satisfy this requirement.

⁴Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.

⁵A student may utilize additional tests for earning verified credit in computer science, technology, career or technical education, economics or other areas as prescribed by the board in [8VAC20-131-110](#).

⁶Students shall successfully complete one virtual course, which may be a noncredit-bearing course, or may be a course required to earn this diploma that is offered online. APS Policy **20-3.200 Alternative Delivery of Instruction** requires that any course taken by a student by a provider other than Arlington Public Schools must be pre-approved for credit through the school's counseling office prior to a student taking a course for high school credit. High school credit will not be awarded towards graduation requirements without preapproval. Please see Appendix D for more information on this requirement.

Students completing the requirements for the Advanced Studies Diploma may be eligible to receive an honor deemed appropriate by the local school board.

Requirements for a Standard Diploma. (For first-time ninth grade classes prior to 2013-2014)

To graduate with a Standard Diploma, a student must earn at least 22 standard units of credit by passing required courses and electives, and earn at least six verified credits by passing end-of-course SOL tests or other assessments approved by the Board of Education.

Standard Diploma Course Requirements (8 VAC 20-131-50.B)			
Discipline Area	Standard Credits <i>Effective with first-time ninth graders in 2003-04 through 2010-2011</i>	Standard Credits Revised Standard Diploma <i>Effective with first-time ninth graders in 2011-2012</i>	Verified Credits-<i>Effective for first time ninth graders in 2003-2004 and beyond</i>
English	4	4	2
Mathematics [Note 1]	3	3	1
Laboratory Science [Notes 2 & 6]	3	3	1
History & Social Sciences [Notes 3 & 6]	3	3	1
Health & Physical Education	2	2	
Fine Arts or Career & Technical Education	1		
Foreign Language, Fine Arts or Career & Technical Education [Note 7]		2	
Economics and Personal Finance		1	
Electives [Note 4]	6	4	
Student Selected Test [Note 5]			1
Total	22	22	6

NOTE 1: Effective with the 2011-2012 academic year and beyond: Courses completed to satisfy this requirement shall include at least two different course selections from among: Algebra I; Geometry; Algebra, Functions, and Data Analysis; Algebra II; or other mathematics courses above the level of Algebra II. The Board shall approve courses to satisfy this requirement.

NOTE 2: Effective with the 2011-2012 academic year and beyond: Courses completed to satisfy this requirement shall include course selections from at least two different science disciplines: earth sciences, biology, chemistry, or physics or completion of the sequence of science courses required for the International Baccalaureate Diploma. The Board shall approve courses to satisfy this requirement.

NOTE 3: Effective with the 2011-2012 academic year and beyond: Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and one course in either world history or geography or both. The Board shall approve courses to satisfy this requirement.

NOTE 4: For the 2010-2011 academic year and beyond: Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.

NOTE 5: Effective with the 2011-2012 academic year and beyond: A student may utilize additional tests for earning verified credit in computer science, technology, career and technical education, economics, or other areas as prescribed by the board in 8 VAC 20-131-110.

Requirements for a Standard Diploma, continued

NOTE 6: Effective with the 2010-2011 academic year and beyond: Students who complete a career and technical [education] program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification or an occupational competency credential from a recognized industry, or trade or professional association or acquires a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification, competency credential, or license for (1) the student selected verified credit and (2) either a science or history or social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the Board of Education as an additional test to verify student achievement.

NOTE 7: Effective with the 2011-2012 academic year and beyond: Pursuant to Section 22.1-253.13:4, Code of Virginia, credits earned for this requirement shall include one credit in fine or performing arts or career and technical education.

- **Sequential Electives**-Effective with the graduating class of 2003, students who wish to receive a Standard or Modified Standard Diploma must successfully complete two sequential electives. On February 5, 2002, the Board of Education approved [Guidelines for Sequential Electives for the Standard and Modified Standard Diploma](#) (PDF).
 - Sequential electives may be in any discipline as long as the courses are not specifically required for graduation.
 - Courses used to satisfy the one unit of credit in a fine arts or career and technical education course may be used to partially satisfy this requirement.
 - For career and technical education electives, check with the Office of Career and Technical Education at (804) 225-2051.
 - An exploratory course followed by an introductory course may not be used to satisfy the requirement.
 - An introductory course followed by another level of the same course of study may be used.
 - Sequential electives do not have to be taken in consecutive years.
- **Fine Arts and Career and Technical Education**-The Standard, Advanced Studies, and Modified Standard Diplomas each contain a requirement for one standard unit of credit in Fine Arts or Career and Technical Education. The Standards of Accreditation do not require that courses used to satisfy the requirement of Fine Arts or Career and Technical Education be approved by the Board. Therefore, local school officials should use their own judgment in determining which courses students take to satisfy the requirement of a unit of credit in Fine Arts or Career and Technical Education for the Standard, Advanced Studies, and Modified Standard Diplomas.

Standard Technical Diploma

Ninth-grade classes of 2011-2012 and 2012-2013 may earn a Standard Technical Diploma.

Standard Technical Diploma Course Requirements (8 VAC 20-131-50.)		
Discipline Area	Standard Credits - Standard Technical Diploma	Verified Credits
English	4	2
Mathematics	3	1
Laboratory Science	3	1
History & Social Science	3	1
Health & Physical Education	2	
Fine Arts or Foreign Language	1	
Economics and Personal Finance	1	
CTE	4	
Electives	1	
Student Selected		1
Total	22	6

Requirements for an Advanced Studies Diploma. (For first-time ninth grade classes prior to 2013-2014)
To graduate with an Advanced Studies Diploma, a student must earn at least 24 standard units of credit and at least nine verified units of credit.

Advanced Studies Diploma Course Requirements (8 VAC 20-131-50.C)			
Discipline Area	Standard Credits <i>Effective with ninth grade classes of 2003- 04 through 2010-2011</i>	Standard Credits Revised Advanced Studies Diploma <i>Effective with the ninth grade class of 2011-2012</i>	Verified Credits
English	4	4	2
Mathematics [Note 1]	4	4	2
Laboratory Science [Note 2]	4	4	2
History & Social Sciences [Note 3]	4	4	2
Foreign Languages [Note 4]	3	3	
Health & Physical Education	2	2	
Fine Arts or Career & Technical Education	1	1	
Economics and Personal Finance		1	
Electives	2	3	
Student Selected Test [Note 5]			1
Total	24	26	9

NOTE 1: Effective with the 2011-2012 academic year and beyond: Courses completed to satisfy this requirement shall include at least three different course selections from among: Algebra I; Geometry; Algebra II; or other mathematics courses above the level of Algebra II. The Board shall approve courses to satisfy this requirement.

NOTE 2: Effective with the 2011-2012 academic year and beyond: Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry, or physics or completion of the sequence of science courses required for the International Baccalaureate Diploma. The Board shall approve courses to satisfy this requirement.

NOTE 3: Effective with the 2011-2012 academic year and beyond: Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and two courses in either world history or geography or both. The Board shall approve courses to satisfy this requirement.

NOTE 4: Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.

NOTE 5: Effective with the 2011-2012 academic year and beyond: A student may utilize additional tests for earning verified credit in computer science, technology, career or technical education, economics, or other areas as prescribed by the Board in 8 VAC 20-131-110.

Electives

- **Fine Arts and Career and Technical Education-**The Standard, Advanced Studies, and Modified Standard Diplomas each contain a requirement for one standard unit of credit in Fine Arts or Career and Technical Education. The Standards of Accreditation do not require that courses used to satisfy the requirement of Fine Arts or Career and Technical Education be approved by the Board. Therefore, local school officials should use their own judgment in determining which courses students take to satisfy the requirement of a unit of credit in Fine Arts or Career and Technical Education for the Standard, Advanced Studies, and Modified Standard Diplomas.
- **Foreign Language-**The Advanced Studies Diploma contains a requirement for either three years of one foreign language or two years of two languages. In March 1998, the Board of Education approved the provision of three years of instruction in American Sign Language (ASL) for foreign language credit toward an Advanced Studies Diploma; other foreign languages will satisfy this requirement as well. Details of this action are available in: [Superintendent's Memo](#), Interpretive, #1, June 12, 1998.

Advanced Technical Diploma

Ninth-grade classes of 2011-2012 and 2012-2013 may earn an Advanced Technical Diploma.

Advanced Technical Diploma Course Requirements (8 VAC 20-131-50.)		
Discipline Area	Standard Units – Advanced Technical Diploma	Verified Credits
English	4	2
Mathematics	4	2
Laboratory Science	4	2
History & Social Science	4	2
Health & Physical Education	2	
Foreign Language	3	
Fine Arts or CTE	1	
Economics and Personal Finance	1	
CTE	3	
Electives		
Student Selected		1
Total	26	9

Modified Standard Diploma. (For first-time ninth grade classes prior to 2013-2014)

The Modified Standard Diploma is intended for certain students at the secondary level who have a disability and are unlikely to meet the credit requirements for a Standard Diploma. Eligibility and participation in the program are determined by the student's IEP team and the student, when appropriate. Decisions of eligibility and participation may be made at any point after the student's eighth grade year. Written consent from parent/guardian must be obtained for a student to choose this diploma program.

The student must:

- be allowed to pursue a Standard or Advanced Studies Diploma at any time throughout his or her high school career;
- not be excluded from courses and tests required to earn a Standard or Advanced Studies Diploma; and
- pass literacy and numeracy competency assessments as prescribed by the Board:
 - The Board also approved four additional substitute assessments to satisfy the literacy and numeracy requirements for students pursuing a Modified Standard Diploma.

Modified Standard Diploma Course Requirements (8 VAC 20-131-50.D)	
Discipline Area	Standard Credits
English	4
Mathematics [Note 1]	3
Laboratory Science [Note 2]	2
History & Social Sciences [Note 3]	2
Health & Physical Education	2
Fine Arts or Career & Technical Education	1
Electives [Note 4]	6
Total	20

NOTE 1: Courses completed to satisfy this requirement shall include content from among applications of algebra, geometry, personal finance and statistics in courses that have been approved by the Board.

NOTE 2: Courses complete shall include content from at least two of the following: applications of earth science, biology, chemistry, or physics in courses approved by the Board.

NOTE 3: Courses completed to satisfy this requirement shall include one unit of credit in U.S. and Virginia History and one unit of credit in U.S. and Virginia Government in courses approved by the Board.

NOTE 4: Courses to satisfy this requirement shall include a least two sequential electives in the same manner required for the Standard Diploma.

Electives

- **Sequential Electives**-Effective with the graduating class of 2003, students who wish to receive a Standard or Modified Standard Diploma must successfully complete two sequential electives. On February 5, 2002, the Board of Education approved [Guidelines for Sequential Electives for the Standard and Modified Standard Diploma](#) (PDF).
 - Sequential electives may be in any discipline as long as the courses are not specifically required for graduation.
 - Courses used to satisfy the one unit of credit in a fine arts or career and technical education course may be used to partially satisfy this requirement.
 - For career and technical education electives, check with the Office of Career and Technical Education at (804) 225-2051.
 - An exploratory course followed by an introductory course may not be used to satisfy the requirement.
 - An introductory course followed by another level of the same course of study may be used.
 - Sequential electives do not have to be taken in consecutive years.

Fine Arts and Career and Technical Education-The Standard, Advanced Studies, and Modified Standard Diplomas each contain a requirement for one standard unit of credit in Fine Arts or Career and Technical Education. The Standards of Accreditation do not require that courses used to satisfy the requirement of Fine Arts or Career and Technical Education be approved by the Board. Therefore, local school officials should use their own judgment in determining which courses students take to satisfy the requirement of a unit of credit in Fine Arts or Career and Technical Education for the Standard, Advanced Studies, and Modified Standard Diplomas.

Sequential Elective Guidelines

Students must take at least two sequential electives to receive a Standard High School Diploma or Modified Standard Diploma. Sequential electives are courses in which the content increases or expands in scope and sequence as students move through the various levels of the courses. These courses may be in any discipline as long as the courses are not specifically required for graduation. Courses used to satisfy one unit of credit in a fine or practical art may be used to partially satisfy this requirement. A sequence that includes an exploratory course followed by an introductory course cannot be used to satisfy this requirement; however, an introductory course followed by another level of the same course of study can be used. Students may take the focused sequence of elective courses in consecutive years or any two years of high school. Counselors will assist students to select courses to meet this requirement.

Diplomas

Depending upon the year a student enters ninth-grade, students who demonstrate academic excellence and/or outstanding achievement may be eligible for one or more of the following awards:

- Students who complete the requirements for an Advanced Studies Diploma or Advanced Technical Diploma with an average grade of "B" or better, and successfully complete college-level coursework that will earn the student at least nine transferable college credits in Advanced Placement (AP), International Baccalaureate (IB), or dual enrollment courses shall receive the Governor's Seal on the diploma.
- Students who complete the requirements for a Standard Diploma, Standard Technical Diploma, Advanced Studies Diploma or Advanced Technical Diploma with an average grade of "A" shall receive a Board of Education Seal on the diploma.
- The Board of Education's Career and Technical Education Seal will be awarded to students who earn a Standard Diploma, Standard Technical Diploma, Advanced Studies Diploma or Advanced Technical Diploma and complete a prescribed sequence of courses in a career and technical education concentration or specialization that they choose and maintain a "B" or better average in those courses; or (i) pass an examination or an occupational competency assessment in a career and technical education concentration or specialization that confers certification or occupational competency credential from a recognized industry, trade or professional association or (ii) acquire a professional license in that career and technical education field from the Commonwealth of Virginia. The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements.
- The Board of Education's Seal of Advanced Mathematics and Technology will be awarded to students who earn either a Standard Diploma, Standard Technical Diploma, Advanced Studies Diploma or Advanced Technical Diploma and (i) satisfy all of the mathematics requirements for the Advanced Studies Diploma or Advanced Technical Diploma (four units of credit including Algebra II; two verified units of credit) with a "B" average or better; and (ii) either (a) pass an examination in a career and technical education field that confers certification from a recognized industry, or trade or professional association; (b) acquire a professional license in a career and technical education field from the Commonwealth of Virginia; or (c) pass an examination approved by the board that confers college-level credit in a technology or computer science area. The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements.

- The Board of Education's Seal for Excellence in Civics Education will be awarded to students who earn either a Standard Diploma, Standard Technical Diploma, Advanced Studies Diploma, or Advanced Technical Diploma and: (i) complete Virginia and United States History and Virginia and United States Government courses with a grade of "B" or higher; and, (ii) have good attendance and no disciplinary infractions as determined by local school board policies and, (iii) complete 50 hours of voluntary participation in community service or extracurricular activities. Activities that would satisfy the requirements of clause (iii) of this subdivision include: (a) volunteering for a charitable or religious organization that provides services to the poor, sick or less fortunate; (b) participating in Boy Scouts, Girl Scouts, or similar youth organizations; (c) participating in JROTC; (d) participating in political campaigns or government internships, or Boys State, Girls State, or Model General Assembly; or (e) participating in school-sponsored extracurricular activities that have a civics focus. Any student who enlists in the United States military prior to graduation will be deemed to have met this community service requirement.
- Students may receive other seals or awards for exceptional academic, career and technical, citizenship, or other exemplary performance in accordance with criteria defined by the local school board.
- Students completing graduation requirements in a summer school program shall be eligible for a diploma. The last school attended by the student during the regular session shall award the diploma unless otherwise agreed upon by the principals of the two schools.
- Students who complete Advanced Placement courses, college-level courses, or courses required for an International Baccalaureate Diploma shall be deemed to have completed the requirements for graduation under these standards provided they have earned the standard units of credit and earned verified units of credit in accordance with the requirements of subsections B and C of this section.

Students who leave high school without a diploma may qualify for the General Achievement Diploma upon passing the GED.

College-Bound Student-Athlete NCAA Eligibility

Students hopeful of practicing, competing, and receiving an athletic scholarship during their first year at a Division I or Division II school, must certify that they are eligible through the NCAA Eligibility Center. NCAA Eligibility Center staff members' partner with students and their families, as well as high school administrators and coaches.

NCAA Division I Academic Requirements

In order to practice, compete, and receive institutional financial aid as a freshman, a student-athlete must:

- Register with NCAA Eligibility Center at www.eligibilitycenter.org
- Earn a minimum required GPA in 16 approved core courses.
- Earn a combined SAT or ACT sum score that matches core-course GPA (refer to “sliding scale A” in the NCAA Guide for the College-Bound Student-Athlete)
- Log back into your NCAA Eligibility Center account and request final amateurism certification.
- Graduate from high school

Students enrolling after August 1, 2016, will need to meet new academic requirements.

Student-athletes will be classified into one of three academic certification statuses:

- Full Academic Qualifier
- Non-qualifier
- Academic Redshirt

Academic Qualifier:

- Will be able to accept an athletic scholarship, practice, and compete during her/his first year.

Nonacademic Qualifier:

- Cannot receive athletic scholarship, cannot practice, and cannot compete in the first year of enrollment.

Academic Redshirt:

- May receive an athletic scholarship in her/his first year and may practice in the first semester but may not compete in the first year. The ability to practice during the second semester is dependent on his/her academic success at the college or university.

NCAA Division II Academic Requirements

In order to practice, compete and receive institutional financial aid as a freshman, a student-athlete must:

- Register with the NCAA Eligibility Center at www.eligibilitycenter.org
- Graduate from high school
- Earn at least a 2.0 GPA in 16 approved core courses; and earn a combined SAT score of at least 820 (critical reading and math) or an ACT sum score of at least 68.
- No sliding scale for Division II
- Log back into your NCAA Eligibility Center account and request final amateurism certification in April of your senior year.

Division I and Division II Core-Course Breakdown

- English
- Math
- Natural or Physical Science
- Social Studies
- Foreign Languages
- Comparative Religion or Philosophy (Under certain circumstances)

Course Requirements:

- The course must be considered academic, four-year college prep.
- Must be taught at or above the high school regular academic level.
- Math courses, must be at the level of Algebra I or higher.
- Must be taught by a qualified instructor as defined by the appropriate academic authority.

Note: Beginning August 1, 2016, the 10 core courses taken before the seventh semester for Division I become “locked in” for the purpose of GPA calculation.

ESL (HILT) courses in English cannot be placed on a high school’s NCAA list of approved core courses.

Courses Not Approved by the NCAA

- Courses in non-core areas, fine arts or vocations such as driver education, keyboarding, art, music, physical education or auto body.
- Courses that prepare students for the world of work or life, or for a two-year college or technical school, such as personal finance, consumer education or tech prep.
- Courses taught below grade level, at a slower pace or with less rigor or depth, such as basic, essential, fundamental or foundational courses.
- Credit-by-exam courses are not considered NCAA – approved core courses.

Visit NCAA.org/course list to find a complete listing of NCAA-approved courses.

Nontraditional and Online Courses

Nontraditional courses are classes taught online or through distance learning, credit recovery, independent study, individualized instruction or correspondence methods.

For a nontraditional course to count as an NCAA-approved core course:

- The course must be comparable in length content and rigor to course taught in a traditional classroom setting and must be four-year college preparatory.
- All courses must include ongoing access between the instructor and student, as well as regular interaction for the purposes of teaching, evaluation, and providing assistance.
- The course must have a defined time period for completion.
- Nontraditional courses should be clearly identified as such on the high school transcript.

Early Academic Certification Process

If a student meets specific criteria after six semesters, she/he may be deemed an early academic qualifier for Division I and may practice, compete and receive an athlete’s scholarship during her/his first year of enrollment.

Division I: Minimum SAT (math and critical reading) of 900 or minimum sum score of 75 on the ACT.

Core-course GPA of 3.0 or higher in a minimum of 14 courses:

- 3 – English
- 2 – Math
- 2 – Science
- 2 – More English/math/science
- 2 – Additional core courses in any area

Division II: Minimum SAT (math and critical reading) of 1000 or minimum sum score of 85 of the ACT.

Core-course GPA of 3.0 or higher in a minimum of 12 courses:

- 3 – English
- 2 – Math
- 2 – Science
- 5 – Additional core courses in any area

Grading Scale

The following grading scale will be used for course work and GPA determination:

Letter Grade	Percentages	Quality Points	AP, IB, and Dual-enrolled Quality Points
A	90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	4.0	5.0
B+	87, 88, 89	3.5	4.5
B	80, 81, 82, 83, 84, 85, 86	3.0	4.0
C+	77, 78, 79	2.5	3.5
C	70, 71, 72, 73, 74, 75, 76	2.0	3.0
D+	67, 68, 69	1.5	2.5
D	60, 61, 62, 63, 64, 65, 66	1.0	2.0
E	0 – 59	0.0	0.0

Because most applications to colleges need to be mailed early in the senior year, the student's grade point average is computed at the end of the junior year. Final GPA is determined at the end of the first semester of the senior year. The value for grades earned in Advanced Placement courses (as long as the student takes the Advanced Placement examination) is greater than that received for regular courses. When GPAs are calculated, the Advanced Placement, International Baccalaureate, and dual-enrolled value is assumed for a course in which a student is currently enrolled.

Advanced Placement

Students enrolled in Advanced Placement and International Baccalaureate courses must take the identified associated examinations. By taking these exams, students have the benefit of possible college credit and consequent advanced standing if qualifying grades are earned. Fees for Advanced Placement and International Baccalaureate tests are paid by the Arlington Public Schools as long as the student has been enrolled in the class.

Dual Enrollment

Dual enrollment allows students to pursue an advanced curriculum in high school relevant to their postsecondary interests. Upon successful completion of a dual-enrolled course, students are awarded both high school and college credit. Before a student can be enrolled in these classes, they must meet entrance requirements established by the college. College credits earned may be transferable to other colleges.

Dual enrollment courses offered through Northern Virginia Community College (NOVA) are available to high school juniors and seniors who meet the established criteria for each class. Freshmen and sophomores can be granted exceptions on a case-by-case basis. Students interested in taking NOVA dual enrollment courses can meet the established criteria in multiple ways (i.e., by taking the Virginia Placement Test or by having eligible SAT, PSAT, ACT, AP or SOL scores.) Please consult your counselor for information on dual enrollment course eligibility, offerings, quality points awarded through DE enrollment, and transferability possibilities. Students who take a DE course receive a college transcript from the awarding institution. For more information on placement testing, alternative placement options, and spring testing dates and sites visit the following online link www.apsva.us/dualenrollment.

Standards of Learning Assessments

Tests based on Virginia’s Standards of Learning (SOLs) are given throughout the state at the end of the school year. All students take SOL assessments at the end of Grades 3, 4, 5, 6, 7, and 8. In addition, all students enrolled in the following courses must take SOL assessments at the end of the course:

English 11: Reading	Algebra I
English 11: Writing	Geometry
World History to 1500 AD	Algebra II
World History after 1500 AD	Earth Science
World Geography	Biology
U.S. History	Chemistry

All students are required to pass six End-of-Course (EOC) tests to qualify for a Standard Diploma and nine to qualify for an Advanced Studies Diploma. See above. If students who are required to pass tests for a diploma fail any of those tests, they will be given additional opportunities to take the test again. Tests will be offered in January, June, and August.

The Virginia Board of Education has approved a list of tests and cut off scores that may be substituted to establish a verified credit. The list of substitute tests is available at http://www.doe.virginia.gov/testing/substitute_tests/index.shtml from the Director of Counseling Services in each high school.

A student who needs verified credits for graduation has an option to appeal a failed End-of-Course test in Science and Social Studies, if the student has passed the course in school. Information on the appeal process can be obtained from the Department of Counseling Services.

Assessment Results

Results from tests taken by students will be mailed to parents after each test administration period. Advanced Placement test results only will be sent directly to the student. Overall results for schools and Arlington will be posted on the APS web site at <http://www.apsva.us> .

Promotion Guidelines

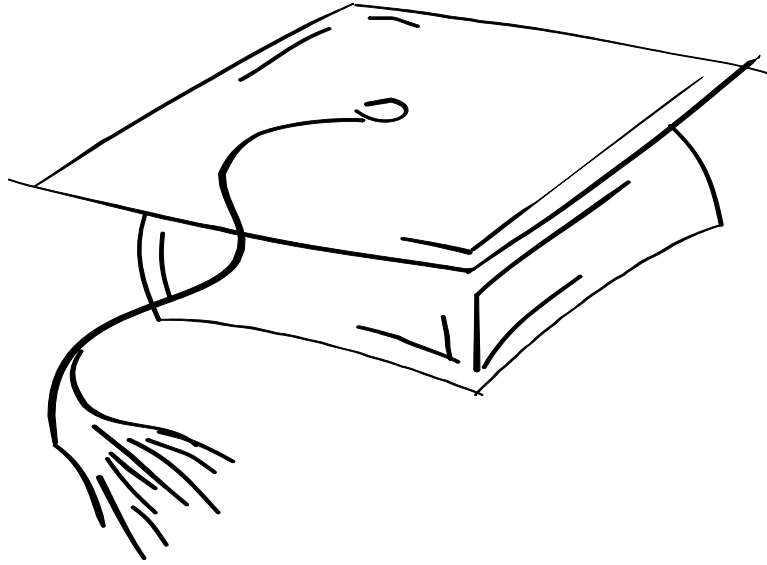
Generally, the high school English course a student is taking establishes his/her grade level. Thus, a student who is enrolled in English 9 is considered to be a Grade 9 student. For a student to be considered a senior or Grade 12 student, he/she must be able to include in his/her program for the year those courses that would permit graduation by the end of the regular school year or by the end of summer school.

Note: If a student finishes Grade 10 without earning at least four verified credits and that student is seeking a standard diploma, the student will be required to attend either a summer school course in make-up and strengthening if the student failed a course and the associated SOL test or an SOL strengthening course if the student passed the course but failed the associated SOL test. If the student does not enroll in the required summer school course, then the student may be required to substitute an SOL strengthening course for an elective in Grade 11.

Fees

Some courses require a fee for materials not provided by Arlington Public Schools. Where applicable the fee is noted with the course description. In cases where students/families are unable to pay the applicable fee, a request to reduce or waive the fee can be made to school.

Please contact the high school counseling office for more information.



STUDENT SERVICES & SPECIAL EDUCATION

Homebound Instruction

Homebound instruction is designed to provide continuity of educational services between the classroom and home or health care facility, for students whose medical needs, physical and/or psychiatric, do not allow school attendance for a limited period of time. Homebound instruction may be used to supplement the classroom program for students with health impairments whose conditions may interfere with continuous daily school attendance (e.g., students receiving dialysis or radiation/chemotherapy; or students with other serious health conditions). The application for homebound instruction is posted on the APS website, under the Office for Special Education. Copies of the application may also be requested at schools. Applications are submitted to the student's school for review before being forwarded to the Supervisor of Special Education for approval. For students with Individual Education Programs (IEP's), an IEP team meeting will be held subsequent to approval for homebound instruction, in order to determine the level of service required. In all cases, eligibility for homebound instruction is reviewed every nine weeks.

Student Services

Psychological services are available in schools on a regular basis. School psychologists consult with both parents and teachers about the intellectual, social and emotional development of students when need is indicated. They may also provide individual psychological evaluations. School social workers serve as liaisons between school and the home or community. They identify resources to assist students and families with social or emotional problems, financial needs, attendance concerns or other problems that may impede academic performance. Psychologists and social workers maintain a close relationship with community agencies such as mental health.

Health

The School Health Division, Department of Human Services, seeks to provide students and their families with preventive and early intervention health services so that students are able to learn to the best of their potential.

Section 504

Section 504 of the Rehabilitation Act of 1973 prohibits discrimination against persons with a disability in any program receiving federal financial assistance. The Arlington Public Schools are committed to a policy of avoidance and correction of any educational discrimination, assuring that students with disabilities have educational opportunities and benefits equal to those without disabilities. Under Section 504, a person is considered to be a person with a disability if they (a) have a physical or mental impairment which substantially limits one or more major life activities (such as caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning or working), (b) have a record of such an impairment, or (c) are regarded as having such impairment. The list of disabilities and major life activities is not exhaustive. Further, the term "substantially limiting" should be interpreted loosely.

Arlington Public Schools will evaluate and provide a free, appropriate education to all students with disabilities. Parents are notified and encouraged to participate in all meetings pertaining to their students' eligibility under Section 504. (Students who are eligible for special education services under the Individuals with Disabilities Education Act are automatically eligible for protection under Section 504.) Parents should address questions and concerns about Section 504 to the Director of Counseling Services or to the principal of the school. Parents may appeal eligibility decisions by contacting the 504 Compliance Officer in the Department of Student Services & Special Education at 703-228-6061.

**Substance Abuse
Counseling**

Arlington Public Schools provides information to students on substance abuse through the Health Program. The Department of Student Services & Special Education works cooperatively with the Department of Human Services to provide substance abuse prevention and early intervention services to the students in Arlington Schools. Confidential substance abuse assessment is available in certain circumstances. Students and parents receive assistance with referrals to appropriate agencies for treatment services.

LIBRARY SERVICES

The library manages and provides resources for learning and independent reading, fostering the intellectual, emotional and social development of students. Students are taught 21st Century Skills so that they may become high-end users of information technology and lifelong learners. The library maintains an up-to-date collection which may be accessed both on and off-site and takes into consideration the subject content, developmental needs, broad perspectives, cultural and ethnic diversity of the students in providing materials.

School librarians instruct students in finding, using and integrating information into their assignments. Students use library materials in a wide variety of formats to retrieve, organize, document, analyze, evaluate, synthesize and present information. Students are taught to adhere to the Acceptable Use Policy for appropriate use of information. Librarians also collaborate with teachers to build curricular units and they run special programs and have extended hours to enhance reading opportunities for students and the greater school community.

Students and their families are encouraged to use the resources of the library both at school and at home by accessing their school library webpage and the resources listed there

ALTERNATIVE PROGRAMS**H-B Woodlawn
Secondary Program**

The H-B Woodlawn Program is a countywide program designed for students who can benefit from having more control over their education than that provided in the neighborhood middle and high schools. By grade nine, these students have the option of leaving the school grounds at any time (with parental permission). They have one to two hours per day of unscheduled time. Students do not have continuous adult supervision and are expected to monitor their own behavior and class attendance. They also participate in setting their own educational goals and in school governance through the Town Meeting. The Town Meeting is the official governing body of the school, and all students and staff participate in making decisions. Parents also are welcome to attend and vote.

The H-B Woodlawn Program is not an independent school, so high school students are part of their neighborhood schools as well and may participate in interscholastic sports there. About 25 percent of high school students participate in some form of home school activity. Because the H-B Woodlawn Program is a countywide alternative school, families must apply for admission during the application period. Should more students apply than there are openings available, a lottery will be held, and families will be informed whether their children will be admitted. For more details on the selection process, contact the school at 703-228-6363 or the Public Information Specialist at 703-228-7667. Bus transportation is provided for enrolled students who live more than 1½ miles from the school.

Teenage Parenting Programs

The Teenage Parenting Programs is designed to meet the unique needs of pregnant and parenting teens in Arlington County.

This program supports the students enrolled in their home schools, the Career Center, or Arlington Community High School. Staff works with students on an individual basis so they are able to take advantage of community services including: comprehensive health services, transportation, and a licensed infant care center at the Career Center. A school counselor is available for all students.

Outreach for Parenting Teens (OPT) reaches out to pregnant and parenting teens not enrolled in school. Through home visits and case management young mothers and fathers are provided assistance to enroll in school remain until graduation. For more information, call 703-228-5818 or 5819.

High School Continuation Program

The High School Continuation Program at **Langston** offers students age 16 and older the opportunity to earn high school credits in a small and supportive environment. Our small setting allows us to address certain accommodations that students may need as they pursue their high school diploma. Students may elect to enter the program for many reasons. The program allows students to take one, two, three, or four block classes each semester. Taking four classes a semester enables students to earn 8 credits a year. Additionally, students are able to receive credit through concurrent enrollment, on-line courses, and dual enrollment through NOVA. Students may also take classes at the Career Center and participate in their home school activities.

The Arlington Career Center**Arlington Tech at the Arlington Career Center**

Arlington Tech, is a project based learning that prepares students to succeed in college and in the workplace through rigorous coursework and collaborative problem solving. Students will learn how to effectively combine their interdisciplinary core academic knowledge with their developed skills in Career Technical Education (CTE) classes to solve environmental, ecological, and engineering problems. There will be an emphasis on hands-on work based activities and projects in which students will put theory into action, and use critical thinking skills to solve relevant and global real world problems.

Arlington Tech provides students with the opportunity to explore and become certified in a variety of CTE fields. Students also gain a jump start on college by earning college credits through dual enrolled academic and CTE courses.

Applications will be available starting November 7, 2016 through the 8th grade counselors at each middle school. The counselors will collect the paper applications by the January 31, 2017 deadline. The application period corresponds to the transfer application process.

For additional information regarding Career Center programs see page 78.

**International
Baccalaureate
Program**

The International Baccalaureate Program, commonly referred to as the IB Program, is an internationally recognized program of studies available to highly motivated college bound grade 11 and 12 students at Washington-Lee High School. Any Arlington student may apply for the program by following the school system's transfer policy and process. This program provides the rigor, the structure, and the experience necessary to challenge academically motivated students. The IB Program comprises a holistic philosophy of learning that seeks to address the intellectual, philosophical, and social development of the student.

The IB Program is a two-year program of studies across the disciplines. The components of the program are successful completion of six academic courses in different subject areas, completion of an external examination in each area, participation in the CAS (creativity, activity, and service), enrollment in the special Theory of Knowledge course and the writing and submission of an independent research paper in an area of interest to the student. Students may select certain IB courses without earning the full IB Diploma. Students who earn an IB diploma are also considered to have met the requirements for an Advanced Studies Diploma. Otherwise, see page 10 for requirements for earning an Advanced Studies Diploma. For more information about this program, families should contact the IB Program Office at 703-228-6234.

**New Directions
High School
Program**

The New Directions High School Program provides at-risk court-involved students, age 14 and over, with academic and career opportunities in a small and nurturing environment. The program is a highly structured and supportive academic setting, allowing students to earn the high school credits needed for graduation. The program administration and staff are committed to providing the academic, behavioral, and family support that will allow students to progress, families to work together toward success, and students to become contributing members of society. The staff works closely with all stakeholders to increase the opportunity for success.

OPPORTUNITIES FOR STUDENTS WHO RECEIVE GIFTED SERVICES

A comprehensive curriculum at the high school level offers students identified for gifted services many and varied opportunities to fulfill their academic requirements. The suggested courses of study listed herein provide the breadth and depth of instructional experience, which correspond to the learning characteristics of the gifted. These courses are designed for those students who demonstrate ability, achievement, and interest in the specified subject area and who meet the prerequisites for the courses. The high school staff, including the Gifted Resource teacher, works to make instructional adjustments to meet the unique needs of gifted learners.

It is suggested that a tentative four-year sequence of courses be considered in the preliminary planning for the high school program. Counselors are available for consultation when making course selection. Other sources of information include teachers, resource teachers for the gifted, and curriculum supervisors of the various disciplines.

This Program of Studies gives detailed descriptions of the various levels of courses available to students identified for gifted services. Additionally, students who are identified for gifted services may choose to enroll in the International Baccalaureate program offered at Washington-Lee High School or apply for admission to the regional academic year Governor's School, Thomas Jefferson High School for Science and Technology.

Each high school holds an evening Gifted Services information meeting for parents concerning implementation of gifted services. Contact your child's counselor for more information.

Art

The following sequence of courses in the high school art program is suggested for students identified for gifted services in art.

Art I (29120)	Grades 9-12
Digital Photography I/II/III (29193) (29194) (29195)	Grades 9-12
Art II (29130)	Grades 10-12
AP Art History (39151)	Grades 10-12
Art III (29140)	Grades 11-12
Advanced Placement Studio Art (39149)	Grade 12

Art electives such as ceramics, computer graphics and sculpture, are available for students interested in more selections in the visual arts.

Music

The following sequence of courses in the high school music program is suggested for students identified for gifted services in music.

Intermediate or Advanced Band/Marching Band (29233) (29234) (29254)	Grades 9-12
String Orchestra (29244)	Grades 9-12
Chamber Orchestra (29242)	Grades 9-12
Song Writing, Digital Audio & Music Theory (29225)	Grades 9-12
Music Theory (AP) (39226)	Grades 11-12
Advanced Choir (29289)	Grades 9-12
Madrigals (29252)	Grades 11-12

A variety of ensemble offerings is available at each high school. Serious students of string, wind, brass, and percussion instruments or vocal music should avail themselves of these each year by checking with the music directors.

Opportunities exist in the drama departments. A number of Theatre arts classes are available to students.

Fine Arts Apprentice Program Grades 10-12

Fine Arts Apprentice I, Full year, one-half credit (29290)

Fine Arts Apprentice II, Full year, one-half credit (29291)

Fine Arts Apprentice III, Full year, one-half credit (29292)

The Arts Education Office administers the Fine Arts Apprentice Program for students in grades 10-12 who are exceptionally talented and committed to visual arts, music, theatre or dance. Individual and small group arts experiences are arranged for these identified students. Students are selected in the spring through written application, interview, and audition/portfolio. Applications are available through high school art and music staff, counselors, and the Arts Education Office.

Mathematics

The following sequence of courses in the high school mathematics program is suggested for students gifted in mathematics. This sequence presupposes the completion of Algebra I at the middle school level.

Geometry, Intensified (23141)	Grades 9-12
Algebra II, Intensified (23136)	Grades 9-12
Precalculus, Intensified (23164)	Grades 9-12
Calculus AB, AP (33177)	Grades 10-12
Calculus BC, AP (33179)	Grades 10-12
Multivariable Calculus (93178W)	Grades 11-12
Vector Calculus (93175W)	Grade 12
Linear Algebra (93165W)	Grade 12
Differential Equations (93180W)	Grade 12

Alternatives

Computer Science, AP (33185)	Grades 11-12
Statistics, AP (33192)	Grades 11-12

Science

The following sequence of courses in the high school science program is suggested for students gifted in science.

Intensified Biology, (24315) and/or	Grade 9
Intensified Earth Science (24215), and/or	Grade 9 or 10
Intensified Chemistry (24415)	Grade 10
Intensified Physics (24515)	Grade 11
Biology, AP (34370) and Selected Science/Topics (34371)	Grade 12
Chemistry, AP (34470) and Selected Science/Topics (34471)	Grade 12
Physics I, AP (34578) and Selected Physics I Topics (34568)	Grade 12
Physics II, AP (34579) and Selected Physics II Topics (34569)	Grade 12
Physics C: Mechanics and Electricity & Magnetism (34570) and Selected Science/Topics (34571)	Grade 12
Environmental Science AP (34270) and Selected Topics (34271)	Grade 12

Social Studies

The following sequence of courses in the high school social studies program is suggested for students gifted in social studies.

World History, AP (32400)	Grade 9
English 9 (21132) and World History, Intensified (22343)	Grade 9
Economics, AP (32806)	Grade 10-12
U.S. and Virginia History, AP (32319)	Grade 11
U.S. and Virginia Government, AP (32445)	Grade 12

Alternatives	World History & Geography: Beginnings to 1500 AD (22215)	Grade 10
	World History & Geography: Beginnings to 1500 AD, Intensified (22219)	Grade 10, 11, or 12
	American Civilization, English	Grade 10
	European History, AP (32399)	Grade 10, 11 or 12
	Human Geography, AP (32212)	Grade 10-12
	Psychology, AP (32902)	Grade 11 or 12
	Sociology (22500)	Grade 10, 11, or 12
	World Affairs (22388)	Grade 10, 11, or 12

English

The following sequence of courses in the high school English program is suggested for students gifted in verbal areas.

English 9 (21132) and World History, Intensified (22343)	Grade 9
English 10 Intensified (21142)	Grade 10
English Language and Composition, AP (31196)	Grade 11
English Literature and Composition, AP (31195)	Grade 12

World Languages

Arlington Public Schools students have the opportunity to study world languages at the secondary level beginning in Grade 7. Students pursuing an Advanced Studies Diploma are required to complete 3 credits of study of world languages. These 3 credits can be obtained by studying 3 years of a world language, or two years of study in each of two languages.

It is recommended that students identified as “gifted” study at least one world language through the Advanced Placement level. Students identified for Gifted services may also wish to consider studying a second world language while in high school.

If students begin to study a world language, and plan to continue its study in college, it is recommended that they study this language through their senior year. This is particularly important if students plan to take the SAT II test in the language. It is recommended that SAT II tests be taken by only those studying at level IV and above.

The following languages are offered to the Advanced Placement level at Arlington high schools:

1. Chinese I, II, III, IV, Chinese Language and Culture, -AP*
2. French I, II, III, IV, V, French Language and Culture-AP, Advanced Studies in French
3. German I, II, III, IV, German Language and Culture-AP*
4. Latin I, II, III, IV, V, Latin-AP, Advanced Studies in Latin*
5. Spanish I, II, III, IV, V, Spanish Language and Culture, AP, Spanish Literature, AP, Advanced Studies in Spanish
6. Spanish for Fluent Speakers I, II, III, Spanish Language and Culture, AP, Spanish Literature, AP
Advanced Studies in Spanish

*One or more levels of these courses may be offered via Online or Distance Learning.

Career Center Courses

Academically gifted students may be interested in the following courses available at the Career Center.

Enrichment Programs	Grades 9-12
PRIME (Professional Related Intern-Mentorship Experience) (29060)	Grades 11-12
Aviation Technology (28731)	Grades 9-12
Advanced Topics in IT (26648)	Grades 10-12
Advanced Topics in Business Administration (28170)	Grades 10-12
Advanced Topics in Business Management (28171)	Grades 10-12
Physical Therapy/Sports Medicine (28332)	Grades 10-12
Emergency Medical Technician (98334W)	Grades 11-12

COURSES OFFERED AT ARLINGTON COMMUNITY*, WAKEFIELD, WASHINGTON-LEE, AND YORKTOWN

*Arlington Community offers a subset of these courses dependent upon student needs. Please consult the school counselor for scheduling.

ARTS EDUCATION

The Arts Education program in the high schools is designed to provide students with the opportunity to participate in a sequential course of study in the disciplines of music, visual arts, and theatre arts. Generalized experiences as well as highly advanced and specialized opportunities are available in all arts areas. Students are provided training in the technical skills necessary to develop their individual capacities to construct and experience the creative process. A credit earned in any of these courses fulfills the Career and Technical/Fine Arts credit requirement.

Music

Chamber Choir (29252)

Full year, one credit

Grades 9-12

Prerequisite: Previous choral experience and audition by choral director

The Chamber Choir ensemble provides an accelerated chamber music experience for highly proficient and developed vocalists. Literature studied is of an advanced level and spans various eras and genres. Extensive training in vocal production, music theory, and sight-reading is included in rehearsals. Attendance at numerous school, community, and traveling performance engagements is required.

Concert Choir (29260)

Full year, one credit

Grades 9-12

Prerequisite: None

This course is designed to develop musicianship and healthy vocal production, and to provide experiences in ensemble singing and sight-reading. A wide range of music is offered, including popular, sacred, and secular, from various styles and periods. Students are required to attend all performances.

Advanced Choir (29289)

Full year, one credit

Grades 9-12

Prerequisite: Previous choral experience in school or community choir is preferred, but not required. Audition and/or approval of the director is required.

The choir rehearses and performs choral literature representative of a variety of styles, including sacred and popular music of moderate to advanced difficulty. Advanced training in sight-reading, vocal production

and technique, and basic music theory is provided. There are school performances and performances at community functions, as well as district festivals and other adjudicated performances. Attendance at performances is required.

Men's Chorus (29266)

Full year, one credit

Grades 9-12

Prerequisite: None

This course is designed to develop musicianship and vocal production specifically for male voices. Open to all young men regardless of experience or ability to allow them to explore the world of men's choral literature, ensemble singing and sight-reading. Particular attention will be paid to the changing voice, developing singing habits and choral tone. A wide range of music will be offered, including popular, sacred and secular, from various styles and periods. Students are required to attend all performances.

Intermediate Band (29233)

Full year, one credit

Grades 9-12

Prerequisite: Consent of or audition by band director

The Intermediate Band class is open to any student who has previous experience (school and/or private study) on a wind or percussion instrument of the modern concert band. Training includes continued development of basic playing skills using music of moderate difficulty and different styles. Sight-reading and music theory are also introduced. Participation in the marching band as well as performance at concerts scheduled by the band director can be required. A limited number of school-owned instruments are available for rent.

Advanced Band (29234)

Full year, one credit

Grades 9-12

Prerequisite: Previous band experience and audition by band director

The advance band rehearses and performs music of moderate to difficult repertoire of symphonic band literature, as determined by the band director. Public performances at school and community functions, concerts, district festivals, possible band trips, marching in preparation for football games, contests, and parades, may also be included. Marching Band is a required extension of this class. Attendance at performances and other band functions can be required at the discretion of the director.

Marching Band (29254)
Half year, one-half credit
Grades 9-12

Prerequisite: None

Requires regularly scheduled after school hours at Wakefield, Yorktown, and Washington-Lee. Attendance is required at rehearsals and performances.

Students receive training in corps style marching techniques for football half-time shows and parades. Use of precision drills, formations, dance steps, and skits is taught with emphasis on musicianship and showmanship. Auxiliary units to the Marching Band may include the Drill Team, Majorettes, Flags, Color Guard, Rifles, and Silks as interest warrants. Attendance at performances is required.

Ensembles (29250)
Half year, one-half credit
Grades 9-12

Prerequisite: Consent of or audition by band, orchestra, or choral director

Regularly scheduled after school or evening rehearsals for special interest ensembles, i.e., jazz ensembles, trios, quartets, Winter Guard etc., for wind, string, brass, percussion, and/or vocal students. Attendance is required.

Beginning Instrumental Music (29200)
Full year, one credit
Grades 9-12

Prerequisite: None

This course is designed for students with no or minimal previous instruction on an orchestral musical instrument (string, brass, woodwind, percussion, keyboard). Playing techniques are emphasized with no performance expectation. The choice of instrument should be discussed with either the band or orchestra instructor. A limited number of school-owned instruments are available for rent.

String Orchestra (29244)
Full year, one credit
Grades 9-12

Prerequisite: Previous experience on a string instrument and the approval of the orchestra director

Students are challenged both technically and musically through the use of a variety of literature in string, chamber, studio, and symphonic music in classical and popular styles. Public performances at school and community functions, concerts, and district festivals are required. A possible orchestra trip may be scheduled. A limited number of school-owned instruments are available for rent.

Chamber Orchestra (29242)
Full-year, one credit
Grades 9-12

Prerequisite: Previous orchestra experience or permission of instructor

The Chamber Orchestra provides an accelerated orchestral experience for highly proficient and developed instrumentalists. Literature studied is of an advanced level, spanning various eras and genres, usually in the composer's original versions. Extensive training in advanced instrumental technique, ensemble performance and sight-reading is included in rehearsals, along with contextual theoretical and historical information. Attendance at numerous school, community and traveling performance engagements is required.

Guitar I (29245)
Full year, one credit
Grades 9-12

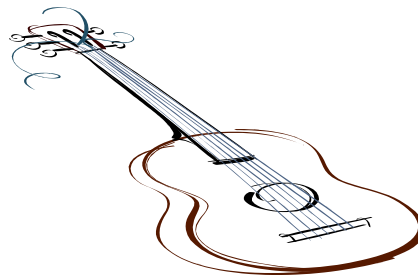
Prerequisite: None

This course is designed for the beginning through intermediate guitar student. Method books, printed sheet music, and guitar ensemble music are used to teach note reading, melodic and chord structures through a variety of technical styles, and musical literature. A limited number of school-owned instruments are available for rent. Students taking this course may be eligible for the Performing Guitar Ensemble, per consent of the instructor.

Guitar II (29247)
Full year, one credit
Grades 9-12

Prerequisite: Guitar I or consent of instructor

This course is designed for the intermediate through advanced guitar student. Method books, sheet music and guitar ensemble music will be used to further the instruction of note reading, melodic and chord structures, stylistic considerations, and musical literature. Attendance at performances and other ensemble functions can be required at the discretion of the director and the principal.



Song Writing, Digital Audio, & Music Theory (29225)

Full year, one credit

Grades 9-12

Prerequisite: Some background in vocal or instrumental music

Song Writing, Digital Audio, & Music Theory is a course designed to study the structure of music in electronic and acoustic settings. In addition to developing students' aural skills, an emphasis is placed on practical application of theory and student creativity in original musical compositions. Students will study song form and composition in addition to mixing and the manipulation of digital audio. Students will learn foundations for music production; proper recording techniques; and how to utilize digital audio workstations and composition & notation software to produce music in a variety of genres and settings.

Music Theory, AP (39226)

Full year, one credit + 1.0 quality point

Grades 10-12

Prerequisite: Strong background in vocal or instrumental music, including piano

The AP Music Theory course is taught at a pace and depth equal to a college level music theory class. The course develops a student's ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a musical score. The curriculum covers a wide range of analytical and compositional skills as well as ear training and sight singing. The course also includes creative tasks, such as the harmonizing of a melody by selecting the voicing for appropriate chords, composing a musical bass line to provide two-voice counterpoint, or the realization of figured-bass notation. This course will prepare students for successful completion of the AP Music Theory examination. *Students who take AP Music Theory are required to take the AP exam at the end of the year. Students not taking the exam will not earn the additional quality point (29226).*

Jazz Instrumental Lab/Ensemble (29251)

Full year, one credit

Grades 9-12

Prerequisite: Students are selected from symphonic or concert bands by audition

The Jazz Instrumental Lab/Ensemble provides working experience in advanced jazz performance in a studio ensemble setting. Emphasis will be on ensemble sound, blend, musicianship, and stylistic aspects of the jazz and pop idioms. Opportunities for solo work, improvisation, and occasional performances with local jazz artists will be provided. Attendance at numerous school, community, and traveling performance engagements is required.

Jazz/Pop Vocal Lab/Ensemble (29280)

Full year, one credit

Grades 9-12

Prerequisite: Previous choral experience and school-wide audition by choral director

The Jazz/Pop Vocal Lab/Ensemble provides working experience in advanced jazz/pop in a studio setting. Emphasis will be on ensemble sound, blend, musicianship, and stylistic aspects of the jazz and pop idioms. Opportunities for solo work, improvisation, and occasional performances with local jazz artists will be provided. Attendance at numerous school, community, and traveling performance engagements is required.

Visual Arts

Art I (29120)

Full year, one credit

Grades 9-12

Prerequisite: None

Using the elements of art principles of design and creative problem-solving skills, students explore the technical processes of drawing, painting, graphics, and 3-D art forms. Art projects are kept in portfolios with student reflections on their working process and final products. This course is a prerequisite for Art II, III and Studio, AP.

Art II (29130)

Full year, one credit

Grades 10-12

Prerequisite: Art I or permission of Visual Arts

Instructor

This course builds on the concepts and techniques learned in Art I. Students learn advanced techniques in drawing, painting, printmaking, and sculpture. Students continue to research and relate works of major artists to their own work.

Art III (29140)

Full year, one credit

Grades 11-12

Prerequisite: Art II or permission of Visual Arts

Instructor

This course is intended for highly motivated students committed to serious study of studio art. The students will create a body of work that will include but is not limited to painting, drawing, graphics, and sculpture. Emphasis is placed on quality of work, concentration in a particular artistic concept, and breadth of expression.

Art History, AP (39151)**Full year, one credit + 1.0 quality point****Grades 10-12***Prerequisite: None*

This is an introductory college course in art history that gives students an understanding of works of art within their historical context by examining issues such as politics, religion, patronage, gender, function, and ethnicity. The course also teaches students visual analysis of works of art. The course covers architecture, sculpture, painting, and other art forms, and students learn to view these art works critically, with intelligence and sensitivity, to analyze what they see. The course prepares students for the successful completion of the AP Art History examination. *Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point. (29151)*

Studio Art, AP (39149)**Full year, one credit + 1.0 quality point****Grades 9-12***Prerequisite: Art III and/or recommendation of teacher*

AP Studio Art is based on the serious practice of art, and students are required to submit a complete portfolio to earn the additional quality point. The course addresses three major areas: high quality in the student's art products; concentration on a particular visual interest or problem; and breadth of experience in the formal, technical, and expressive means of producing art. The students will engage in the creative and systematic investigation of formal and conceptual issues, understand the making of art as an ongoing process that requires informed and critical decision making, and develop technical skills and familiarity with the functions of the visual elements.

Students are required to submit an AP Portfolio for this course. Students not submitting a complete portfolio will not earn the additional quality point. (29149)

Ceramics I (29167)**Full year, one credit****Grades 9-12***Prerequisite: None*

This course will address 3D clay forms in both functional and decorative forms. Students will use various techniques of hand-building, and wheel throwing. This course will allow students to experience clay for the first time or enable more advanced students to develop their skills. Students will be encouraged to experiment with different glazes and finishing techniques.

Ceramics II (29168)**Full year, one credit****Grades 9-12***Prerequisite: Ceramics I or permission of instructor*

This course will continue to address 3D clay forms in both functional and decorative forms. This course will allow students to hone their skill in hand-building and wheel throwing. It will allow the student to further investigate the possibilities that clay has to offer the 3D artist. Students will learn other glazing, finishing, and firing techniques. Included will be the study of clay artists and their works.

Ceramics III (29169)**Full year, one credit****Grades 10-12***Prerequisite: Ceramics II or permission of instructor*

This course is intended for highly motivated students who are committed to the serious study of ceramics. Students will build on skills learned in Ceramics I and II and concentrate on breadth and depth.

Introduction to Crafts (29160)**One semester, one-half credit****Grades 9-12***Prerequisite: None*

Students create pottery, weaving, jewelry, masks, etc., from a variety of cultural perspectives and styles which may include Native American, Guatemalan, Mexican, Asian, and Colonial American.

Crafts (29162)**Full year, one credit****Grades 9-12***Prerequisite: None*

In this year-long course, students will deal with the rich cultural heritage of crafts which combine function with artistic design. Multicultural craft exemplars will serve to inspire responses to assignments involving clay, fiber, wood, etc. Knowledge necessary to work intelligently, skillfully, and creatively with craft media will be developed. Elements and principles of design and aesthetics, written and/or oral critiques, and the historical heritage of the crafts produced will be stressed.

Painting and Drawing (29163)**One semester, one-half credit****Grades 9-12***Prerequisite: None*

The student learns basic approaches to drawing and painting a variety of subject matter, including still life, landscape, figure, and fantasy. Problems presented stress perception and stylistic organization of line, space, value, texture, and color. A variety of media is used. Works of major artists in these media are studied.

Computer Graphics (29152)

Full year, one credit

Grades 9-12

Prerequisite: None

Students apply creative problem solving skills to commercial design problems that may include product image, logo design, product display, story illustration, page and publication layout. Students may use computer-generated graphics to produce completed works.

Digital Photography I (29193)

Full year, one credit

Grades 9-12

Prerequisite: None

Students approach photography as an art form. They will learn to use a single lens reflex camera, producing prints through various processes to include digital technology. Topics covered include history of photography, elements and principles of design, lighting and camera functions. **A lab fee of \$50.00 is charged for printing costs. See page 17 for fee reduction/waiver information. Students are requested to supply their own camera if possible and are required to provide their own photo paper. A limited number of cameras are available based on need. Students are responsible for lost, stolen, or significantly damaged cameras.**

Digital Photography II (29194)

Full year, one credit

Grades 10-12

Prerequisite: Photography I or permission of photography instructor

In this advanced course, emphasis is placed on artistic and expressive solutions to a variety of photography problems that expand the basic concepts and techniques learned in Photography I. Works of major photographic artists are studied as they relate to photographic problems explored. **A lab fee of \$50.00 is charged for printing costs. See page 17 for fee reduction/waiver information. Students are requested to supply their own camera if possible and are required to provide their own photo paper. A limited number of cameras are available based on need. Students are responsible for lost, stolen, or significantly damaged cameras.**

Digital Photography III (29195) (98610W)

Full year, one credit +1 quality point

Grades 11-12

Prerequisite: Photography I and Photography II

This is an advanced photography course for the serious photo student. Students will spend a year building their professional photography portfolio and advancing the skills learned in Photography I and II. **A lab fee of \$50.00 is charged for printing costs. See page 17 for fee reduction/waiver information. Students are requested to supply their own camera**

if possible and are required to provide their own photo paper. A limited number of cameras are available based on need. Students are responsible for lost, stolen, or significantly damaged cameras.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as PHT101 for a total of 3 credits at NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*

Introduction to Sculpture (29165)

One semester, one-half credit

Grades 9-12

Prerequisite: None

This class is designed for students interested in three-dimensional art. Students will learn the principles of sculptural processes and gain fundamental knowledge of materials, tools, and safety procedures. Students will build several sculptures, and learn various techniques used in clay and plaster. The historical significance of sculpture will be explored.

Sculpture (29166)

Full year, one credit

Grades 9-12

Prerequisite: Introduction to Sculpture /Crafts/Art I or permission of the Visual Art Instructor

This course is designed for students interested in creating self-expressive sculptural objects, through a variety of materials and techniques, including but not limited to clay, plaster, wood, and wire. Subject matter is approached through realistic, abstract, and non-objective interpretation. Exemplars of contemporary sculptors are examined.

Theatre Arts

Theatre Arts I (21400)

Full year, one credit

Grades 9-12

Prerequisite: None

This course is an introduction to drama and theatre techniques, designed for the student who wishes to explore the various fields of drama and the theatre as a medium of communication. Participants learn basic acting techniques through pantomime, improvisation, and scene study. Voice improvement, problem-solving abilities, play reading, and acting talents are practiced by working in groups. Activities include a study of the history of the theatre, technical aspects of theatre production, analyses of dramatic structures, and the design and production of a one-act play.

Theatre Arts II (21415)**Full year, one credit****Grades 10-12**

Prerequisite: Theatre Arts I or permission of Theatre Arts Teacher

This course is designed to continue the study of dramatic techniques and performance skills gained in Theatre Arts I. Emphasis is on character development, make-up, costuming, acting theories, and stage techniques. Students write, produce, and perform shows and plays for various audiences. The study of the history of theatre continues. Out-of-class rehearsals may be necessary to complete these activities.

Theatre Arts III (21425)**Full year, one credit****Grades 11-12**

Prerequisite: Theatre Arts II or permission of Theatre Arts Teacher

This course is a dramatic arts workshop course requiring active participation in productions. Students experience the areas of study and production of a drama as members of a production company, culminating in a full-length production. Each student is required to complete two detailed projects related to class production work, including assignments in at least two of the following three categories: (1) performance; (2) production/directing, management, history, and research; or (3) design/lights, costumes, sets, and props. The study of the history of theatre continues. Out-of-class rehearsals may be necessary to complete these activities.

Advanced Theatre IV (21430)**Full year, one credit****Grades 11-12**

Prerequisite: Theatre Arts III or permission of Theatre Arts teacher

In Theatre Arts IV, students conceptualize and oversee the entire production process for several theatrical events. By directing, producing, and managing plays or shows, Theatre Arts IV students synthesize and apply all previously learned technical elements, acting and directing techniques, and group dynamic skills. Out-of-class rehearsals may be necessary to complete these activities.

Technical Theatre (21435)**Full year, one credit****Grades 9-12**

Prerequisite: Theatre Arts I or permission of Theatre Arts Teacher

Students learn the basic elements of lighting, set construction, costume, make-up, and props by being actively engaged in providing the technical support for a variety of theatrical events each term. Each student is required to complete two detailed projects related to production needs in the areas of lighting, sets,

costumes, make-up, or props. Some after school participation is necessary.

Special Considerations

Students who are interested in baccalaureate study in the arts are advised to take the sequence of study noted (i.e. Art I, II, III, AP; Theatre Arts I, II, III, IV). With instructor approval, students may work on the AP Visual Arts portfolio requirement over a two-year period by enrolling in Art III in the junior year and AP Arts in the senior year. Students interested in further music study after graduation are strongly advised to take the Music Theory course offering.

Apprentice, Fine Arts**Full year, one-half credit****Fine Arts I (29290), Grades 10-11****Fine Arts II (29291), Grades 11-12**

Prerequisite: Fine Arts I or permission of Instructor.

Fine Arts III (29292), Grade 12

Prerequisite: Fine Arts II or permission from the Instructor

The Arts Education Office provides the Apprentice Program for students in grades 10-12 who are exceptionally talented and committed to visual arts, music, theatre or dance. Individual and small group arts experiences are arranged for these identified students. Students are selected in the spring through written application, interview, and audition/portfolio. Applications are available through high school art and music staff, counselors, and the Resource Teachers for Gifted.

CAREER AND TECHNICAL EDUCATION

Career and Technical Education courses help students learn the technical applications of many occupations while they prepare for higher education or entry-level employment. Career and Technical Education (CTE) courses are offered in the comprehensive high schools within the program areas of Business & Information Technology, Computer Science, Family & Consumer Science, Marketing, and Technology Education. Courses in these areas are also offered at the Career Center.

Each Career and Technical course offers the opportunity to earn the career and technical credential required for the Standard Diploma graduation requirement. Please see your counselor for more information.

Sequence Options of the Career and Technical Education Courses at Wakefield, Washington-Lee, and Yorktown High Schools			
Graduation requirements for the Standard Diploma require a least two sequential electives. In CTE this requirement may be fulfilled using one of the options listed below. Please see your counselor for more details.			
I. Business and Communication			
Arts, A/V Technology and Communications	Sequence Option 1: Technology Computer Applications (26153) DE and Computer Information Systems (26614) DE	Sequence Option 2: Introduction to Business & Marketing (26112) and Advanced Topics in Business & Marketing (28137)	Sequence Option 3: Design, Multimedia and Web Technologies (26630) & Computer Information Systems (26614) DE and Advanced Topics in Business & Marketing (28137)
Business, Management and Administration	Sequence Option 1: Technology Computer Applications (26153) DE and Computer Information Systems (26614) DE	Sequence Option 2: Introduction to Business & Marketing (26112) and Advanced Topics in Business & Marketing (28137)	Sequence Option 3: Design, Multimedia and Web Technologies (26630) & Computer Information Systems (26614) DE and Advanced Topics in Business & Marketing (28137)
Information Technology	Sequence Option 1: Introduction to Information Technology (26116) and Advanced Topics in Information Technology (26648) DE	Sequence Option 2: Computer Science (26639) and AP Computer Science (33185) or IB Computer Science (36570)*	Sequence Option 3: Computer Networking & Internet Applications (29800) and Computer Science (26639)
Marketing	Sequence Option 1: Entrepreneurship (29094) and Introduction to Business & Marketing (26112)	Sequence Option 2: Introduction to Business & Marketing (26112) and IB Business Management (36114) * or Advanced Topics in Business & Marketing (28137)	Sequence Option 3: IB Business Management (36114) * and Advanced Topics in Business & Marketing (28137)
II. Industry and Engineering			
Science, Technology, Engineering and Mathematics	Sequence Option 1: Engineering I: Introduction to Engineering Design (28491) and Engineering II: Principles of Engineering (28492)	Sequence Option 2: Computer Assisted Technical Drawing (28439) DE and Computer Assisted Architectural Drawing (28408) DE	
II. Health and Human Services			
Agriculture, Food and Natural Resources	Sequence Option 1: Food & Fitness (28274) and Child Development & Parenting (28232)		
Human Services	Sequence Option 1: Child Development & Parenting (28232) and Early Childhood I (28235)	Sequence Option 2: Child Development & Parenting (28232) and Teachers for Tomorrow I (29062)	Sequence Option 3: Teachers for Tomorrow I (29062) and Early Childhood Education I (28235)

DE – Course is also available for qualified students to earn dual-enrolled college credit. Please see course description or more information.

*IB courses are only offered at Washington-Lee High School

**Additional levels of some sequences are available at the comprehensive high schools. Other CTE courses are also available at the Arlington Career Center. Please see page 78 for more information.

- *Students may earn a selected verified credit upon completion of a CTE sequence and successfully passing a state approved industry certification for that sequence.*
- *Each CTE course provides an opportunity for industry certification for students entering high school in 2013-2014 and beyond to fulfill the career and technical certification required for the Standard Diploma graduation requirement.*

BUSINESS & INFORMATION TECHNOLOGY

All courses qualify for the Career and Technical/Fine Arts credit.

Any equivalent of two full-year courses satisfies the sequential elective requirement.

The Business and Information Technology program provides students with industry-based skills in Accounting, Information Technology, Database Administration, Computer Networking, Finance, Administration, Economics, Entrepreneurship, Webpage Design, Computer Applications, International Business, Cyber Security, Workplace Readiness Skills, and Computer Programming. The courses are designed to benefit students who are planning further college study, planning a combination of college and employment, or planning full-time employment immediately after high school. Selected courses offer students industry certifications, or college credit.

Technology Computer Applications Recommendations for Rising 9th Grade Students

If a student has completed Grade 8 Keyboarding and a prior semester of keyboarding, he/she should register for Computer Information Systems, Desktop Multimedia and Web Technologies, and/or Introduction to Information Technology. Students who had both Grade 6 and Grade 7 keyboarding should register for Technology Computer Applications.

Technology Computer Applications (26153) **(96153W)**

Full year, one credit + 1.0 quality point
Grades 9-12

Prerequisite: None

Technology Computer Applications is recommended for students with no or limited keyboarding skills. Also, it is recommended for students needing to improve typing proficiency or to refine skills prior to college. It introduces proper formatting of business and personal documents, and teaches students 21st century employability knowledge and skills. It enables students to develop their technical writing by designing and creating authentic business projects, and with the integration of academic projects. Students prepare for the career and technical Workplace Readiness and Microsoft Office industry certifications.

- **College Credit:** This course may be dual-enrolled at Northern Virginia Community

College (NOVA) as AST141 for a total of 3 credits at NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.

- Student-selected verified credit can be earned by passing the course related industry certification.

Computer Information Systems (26614) (96614W)

Full year, one credit + 1.0 quality point

Grades 9-12

Prerequisite: Keyboarding or demonstrated proficiency

Students apply problem-solving skills to real-life situations through word processing, spreadsheets, databases, multimedia presentations, and integrated software activities. Students work individually and in groups to explore computer concepts, operating systems, networks, telecommunications, and emerging technologies. The work experience is available for this course (*Optional*). Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. With these courses students can meet the career and technical industry certification graduation and the online course graduation requirement.

- **College Credit:** This course may be dual-enrolled at Northern Virginia Community College (NOVA) as BUS226 for a total of 3 credits at NOVA pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.
- Student-selected verified credit can be earned by passing the course-related industry certification.

Computer Networking & Internet Applications **(29800)**

Full year, one credit

Grades 10-12

Prerequisite: None

This course covers the first two semesters of a four-semester sequence in computer networking technology. The course is designed to provide students with classroom and laboratory experience that will empower them to enter employment and/or further education and training in the computer networking field. Instruction topics include cyber security, terminology, safety, networking models,

TCP/IP addressing protocol, router programming, cabling and cabling tools, related codes and regulations, and the network administrator's role and function. Particular emphasis is given to problem-solving techniques. Students use curriculum designed for professionals in the networking industry and take a sequence of exams leading to industry certification upon passing the exams.

**Cooperative “Coop” Education Work Experience
Full year, Variable (1 to 3 credits) depending on
hours worked**

1 credit (28951), 2 credits (28953), 3 credits (28954)

Prerequisite: Concurrently enrolled to a Career and Technical (CTE) Elective

Cooperative Education is a structured method of instruction that combines classroom-based instruction and on-the-job training to help students prepare for or explore their occupational objectives. It is paid employment. Students work an average of 11 – 15 hours per week. Coop students are guided by a formal, individualized, written training plan that defines the student's work-experience. The students are evaluated by the coordinating teacher and their employer supervisor to earn letter grades for the course and work experience. The student must pass the concurrent career and technical education (CTE) course to earn course credit and work-experience credit. In addition to the course credit, students may earn 1 to 3 credits for work-experience. Students must work 396 hours for 1 credit, 792 hours for 2 credits, or a minimum of 1,188 hours for 3 credits during the current academic year. Any work-experience hours earned during the summer will count towards work credit for the next academic year, provided that the student continues enrollment in a CTE course. Student employment conforms to federal, state, and local child labor laws and regulations. Concurrent CTE courses are any of the Business & Information Technology, Computer Science, Trade & Industrial Education, Technology Education and Family and Consumer Science program electives offered in grades 10th- 12th. Reference the *Program of Studies* for additional course information.

**Design, Multimedia, and Web Technologies
(26630)**

**One semester, one-half credit
Grades 9-12**

Prerequisite: None

Students develop proficiency in creating desktop publications, multimedia presentations/projects, and Web sites using industry standard application software such as Adobe Dreamweaver, Flash, and HTML. Students incorporate principles of layout and design in completing publications and projects. Students design portfolios that may include business cards,

newsletters, mini-pages, Web pages, multimedia presentations/projects, calendars, and graphics. Work experience is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

**Entrepreneurship (29094) (99094W)
Arlington Student Enterprise Program
Full year, one credit + 1.0 quality point
Grades 9-12**

Prerequisite: None

Students explore qualities of individual enterprise. They develop skills needed to advance in an ever-changing work environment. Specifically, students develop competencies in decision making, long-range planning, effective communication, accountability, responsibility, and continuing education. This course is designed for students who wish to concentrate on strategies for career development through ownership/management of their own businesses. Although individual skills are emphasized, the focus of the course is on development of a business plan, including the following: determination of the type of business enterprise, legal considerations, location selection, financing, steps in getting the enterprise started, marketing strategy, and interaction with successful entrepreneurs.

As part of the entrepreneurship course, students may apply for the Arlington Student Enterprise (ASE) program. Students are selected to work on client projects based on their expertise in an information technology area. Students will need to demonstrate that they are highly qualified and can work independently on ASE client projects.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as BUS116 for a total of 3 credits at NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*

**Entrepreneurship Advanced (29095)
Full year, one credit
Grades 9-12**

Prerequisite: Entrepreneurship

This course is designed for students who wish to concentrate on advanced strategies for entrepreneurship, building upon concepts introduced in Entrepreneurship (29094). The focus of the course is on development of a business plan and small

business management. Students will establish, market, and maintain a business.

Introduction to Information Technology (26116)

Full year, one credit

Grades 9-12

Prerequisite: None

Students are offered a hands-on introduction to the various information technology studies available through APS including multimedia production and presentation skills, computer software applications, network administration, programming languages, operating systems, and computer hardware. They will explore IT as a career area and will be able to make an informed choice of advanced IT study, particularly for the IT sequences that lead to industry certification such as A+, Network+, CNA, and the Cisco Academy. With successful completion of the course, students are prepared to pursue further study in the information technology that leads to dual enrolled college courses at Northern Virginia Community College that apply toward the Associates of Science in Information Technology or the Associates of Applied Science in Information Technology at NOVA.

Advanced Topics in Business and Marketing (28137) (98137W)

Full year, one credit + 1.0 quality point

Grades 10-12

Prerequisite: Previous coursework in business or marketing or instructor approval

This course is designed for exceptionally motivated students who demonstrate the ability to study independently to develop expertise and skills by completing advanced coursework in business and marketing. The students self-select the specific area of study such as business management, Internet marketing, accounting, advanced entrepreneurship, business finance, business law, international business trade, and sports management, and entertainment marketing. Before work commences on the topic of study, the student must submit a topic plan of study requesting written approval from the instructor to proceed. Students are primarily assessed with performance-based assessments such as digital portfolios, cumulative projects, demonstrations, and journals. Students are encouraged to develop creative, innovative, integrated content, and team projects. Students can take this course for multiple years.

- **Work Experience (optional):** Work experience is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. Additional credits can be earned with the completion of work experience: 1 credit for 396 hours, 2 credits for 792 hours.

- **Additional high school credits:** Students will receive a certificate of completion upon finishing two or more years in the area of study.
- **College Credit:** Selected course topics may be dual-enrolled at Northern Virginia Community College (NOVA) towards an Associate's Degree in the fields of business and information technology, pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of the course is taught at the college level. Please consult with your counselor for more details.

Advanced Topics in Information Technology (26648) (96648W)

Full year, one credit + 1.0 quality point

Grades 10-12

Prerequisite: None

This course is designed to encourage students to develop expertise in specific Information Technology areas. Students may study such topics as: advanced programming, network administration, computer graphics, game design, database administration, computer imaging, computer 2D/3D animation, web page design, desktop systems, advanced software applications and other topics with instructor approval. This course can be taken more than once depending upon topics selected and approved by the instructor. The requirements for the course can be satisfied through individual or team projects, mentorship, or independent study during class periods. Students may be able to obtain NOVA dual-enrollment credit.

- **College Credit:** This course may be dual-enrolled at Northern Virginia Community College (NOVA). Course equivalency and credits awarded are dependent upon topic studied with NOVA courses used towards an Associate's Degree in Information Technology. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.



COMPUTER SCIENCE

All courses qualify for the Career and Technical/Fine Arts credit

Computer Science is a program of study that prepares students for post-secondary education and careers in programming, information technology, mathematics, science and engineering fields. Students receive a mathematics or science credit for advanced computer science courses. Selected courses offer students industry certifications, paid work experience, college credit, and can satisfy the Career and Technical/Fine Arts credit and verified credit requirements for graduation.

Computer Science (26639) (96639W) **Full year, one credit +1.0 quality point** **Grades 9-12**

Prerequisite: Successful completion of Algebra I

In Computer Science, students are introduced to object-oriented programming language control structures, procedures, functions, parameter passing, records, arrays, files, and datasets. Emphasis is placed on modularization and programming style used in software development. JAVA and Python programming are the primary languages taught.

- **College Credit:** Computer Science may be dual-enrolled at Northern Virginia Community College (NOVA) as ITP120 for a total of 4 credits or CSC130 for 3 credits and CSC185 for 1 credit if the student has passed pre-calculus. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.

Computer Science, AP (33185) **Full year, one mathematics credit + 1.0 quality point** **Grades 10-12**

Prerequisite: Completion of Computer Science I and II with a grade of "B" or better or permission of the instructor

Advanced Placement Computer Science is a rigorous course emphasizing programming methodology, algorithms, and data structures. Emphasis is placed on applications involving arrays, linked lists, trees, and sorting techniques. Many projects involve outside-of-class practice, study, and reading. Students entering this course must have a solid knowledge of Java programming language. This course meets the requirements for AP Computer Science as outlined in the syllabus published by the College Entrance

Examination Board. *Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point. (23185) Segments of this course will be taught online, thereby satisfying the graduation requirement for a virtual course.*

Computer Science Principles, AP (33186) **Full year, one credit + 1.0 quality point** **Grades 9-12**

Prerequisite: Successful completion of Algebra with a "B" or better

This course offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to creative aspects of programming, using abstraction and algorithms, working with large data sets, understandings of the internet and issues of cybersecurity, and impacts of computing that affect different populations. APS Computer Science Principles will give students the opportunity to use current technologies to solve problems and create meaningful computational artifacts. (College Board)

Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point. (23186). Segments of this course will be taught online, thereby satisfying the graduation requirement for a virtual course.

FAMILY AND CONSUMER SCIENCES

All courses qualify for the Career and Technical/Fine Arts credit (full year-one credit, half-year-half credit)

Child Development and Parenting – Semester (28230) **One semester, one-half credit** **Grades 9-12**

Prerequisite: Tuberculin skin test

This course is designed for the student to learn about quality care for children and good parenting skills. It starts with decision-making steps toward having a family and insights into careers involving children. The course includes nutrition and prenatal development, how to take care of a baby, child growth and development, why children behave the way they do, how play is children's work, how to discipline children, communication techniques, and planning activities for children of various ages. Part of the course work includes guided observations of children with participation in the early childhood setting.

Child Development and Parenting - Year (28232) **Full year, one credit** **Grades 9-12**

Prerequisite: Tuberculin skin test

This course is designed for the student to learn about quality care for children and good parenting skills. It

starts with decision-making steps toward having a family and insights into careers involving children. The course includes nutrition and prenatal development, how to take care of a baby, child growth and development, why children behave the way they do, how play is children's work, how to discipline children, communication techniques, and planning activities for children of various ages. It also includes the study of adoption, childhood diseases and immunizations, day care options, establishment of routines, sibling rivalry, toy selection, and play activities. The course includes exposure to community resources and observation/participation in the nursery laboratory.

Food and Fitness – Semester (28272)

One semester, one-half credit

Grades 9-12

Prerequisite: None

This course offers students the opportunity to further their knowledge of the relationship of diet and exercise to a healthy lifestyle. It includes the management of time, energy, and money to provide adequate food for the individual and family. Nutritional needs, safety and sanitation practices, and use and care of kitchen equipment provide a framework for the laboratory experiences in basic food preparation.

Food and Fitness – Year (28274)

Full year, one credit

Grades 9-12

Prerequisite: None

This course offers students the opportunity to further their knowledge of the relationship of diet and exercise to a healthy lifestyle. It includes the management of time, energy, and money to provide adequate food for the individual and family. Nutritional needs, safety and sanitation practices, and use and care of kitchen equipment provide a framework for the laboratory experiences in basic food preparation. Content includes preparing foods for special diets, creating meals with time to spare, learning about foods for entertaining, preparing various ethnic dishes, and exposure to various food related careers.

Introduction to Fashion Careers (28147)

Full year, one credit

Grades 9-12

Prerequisite: None

Students in Introduction to Fashion Careers focus on identifying and exploring the individual careers within the apparel, accessory, and textile design, manufacturing, and merchandising industry. Units of study include the relationships that exist among all areas of the clothing industry; related global and economic issues, apparel, accessory, and textile technology; exploration of careers, including entrepreneurial opportunities in related areas; and the

skills and personal characteristics necessary for success in careers in the apparel, accessory, and textile design, manufacturing, and marketing industry.

Introduction to Interior Design (28289)

Full year, one credit

Grades 9-12

Prerequisite: None

The Introduction to Interior Design students explore the influences on the design of interior spaces, investigate careers in the interior design industry, and focus on the technical and soft skills necessary for employment in the field of interior design. Students develop an interior design project that meets specific criteria and includes the elements and principles of design.

Teachers for Tomorrow I (29062) (99062W)

Full year, one credit + 1.0 quality point

Grades: 11-12

Prerequisite: 2.7 GPA

The Teachers for Tomorrow course introduces juniors and seniors to a career in teaching and education. The primary components of the curriculum are the learner, the school, and the teacher and teaching. The components are intentionally broad in scope and provide a great deal of flexibility based on the career interest of a student. All students are required to observe and participate in an internship outside the Teachers for Tomorrow classroom. The internship may be done from the pre-school level through 12th grade. *Note: Students with a grade of "B" or better may earn four credits through Shenandoah University.*

- **College credit:** *This course is dual-enrolled through Shenandoah University as EDUC201 for a total of 4 credits pending acceptance to Shenandoah University. The content of this course is taught at the college level. Please consult with your counselor for more details.*

Teachers for Tomorrow II (29063)

Full year, one credit

Grades: 11-12

Prerequisite: Teachers for Tomorrow I

Students continue to explore careers in the Education and Training Cluster and pathways. This course provides the opportunity for students to prepare for careers in education as they research postsecondary options, learn about the process of teacher certification in Virginia, and participate in a practicum experience.

MARKETING

All courses qualify for the Career and Technical/Fine Arts credit.

The Marketing program is designed for students interested in studying marketing and careers in the following areas: marketing, marketing research, financial services, sports and entertainment, internet marketing, international trade, entrepreneurship, fashion merchandising, marketing management, sales management, international business, hospitality marketing, workplace readiness skills, and advertising. Students acquire a solid foundation in preparing for post-secondary studies and employment. Students can elect to participate in the work experience. Students are also prepared to take the National Customer Service Exam for a selected student-verified credit.

Introduction to Business and Marketing (26112)

Full year, one credit

Grades 9-12

Prerequisite: None

Introduction to Business and Marketing is recommended as a foundation course to a Business & Information Technology sequence. Students learn the functions of American and international business organizations in the global economy. Activities emphasize the roles of the consumer, marketer, and producer. Students learn basics of the private enterprise system and are introduced to careers in business, including the opportunities of entrepreneurship and world trade.

Sports, Entertainment, and Recreation Marketing (28123)

Full year, one credit

Grades 10-12

Prerequisite: None

This introductory course helps students develop a thorough understanding of fundamental marketing concepts and theories as they relate to the sports, entertainment, and recreation industries. Students will investigate the components of branding, sponsorships and endorsements, as well as promotion plans needed for sports, entertainment and recreation events. The course also supports career development skills and explores career options. Academic skills (mathematics, science, English, and history/social science) related to the content are a part of this course,

TECHNOLOGY EDUCATION

Technical Education courses are designed to offer an orientation to industry and technology and provide exploratory experiences with the tools, equipment, materials, processes, and products of society. Courses may be elected to assist students in making informed and meaningful career and technical education choices and to prepare them for further education.

All courses qualify for the Career and Technical/Fine Arts credit.

Computer Assisted Architectural Drawing (28408) (98408W)

Full year, one credit + 1.0 quality point

Grades 10-12

Prerequisite: None

This is a drawing course which focuses on the practices of the fields of architecture and construction. Students prepare working drawings necessary in residential construction through the use of mechanical drafting and computer assisted drawing. These documents include floor plans, electrical plans, wall sections, elevations, and renderings. Students build scale models and prepare presentations on various building materials and their individual properties. This class provides information helpful for the homeowner and is especially beneficial to the future architect, interior designer, or homebuilder, including students' involved in the construction trade skill classes. Computer aided drafting using AutoCAD is a component of this course.

- **College credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as ARC 123 for a total of 3 credits at NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*

Computer Assisted Technical Drawing (28439) (98439W)

Full year, one credit + 1.0 quality point

Grades 9-12

Prerequisite: None

This is a beginning level mechanical drawing class which introduces the skills required to communicate effectively through the use of graphic language. Students use three methods of graphic representation: freehand sketching, mechanical drafting, and computer-assisted drawing. The course content includes career opportunities in the field of technical drawing, freehand sketching, lettering techniques, line types, geometric constructions, multi-view drawings, dimensioning, sectional views, auxiliary views, and computer assisted design. This course is especially recommended for future engineers, architects, or

home builders, including students involved in the construction trades.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as CAD140 for a total of 3 credits at NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*

Engineering I: Introduction to Engineering Design (28491)

Full year, one credit

Grades 9-12

Prerequisite: None

Engineering I emphasizes the development of engineering design. Students use computer software to produce, analyze and evaluate models of project solutions. They study the design concepts of form and function, and then use state-of-the-art technology to translate conceptual design into reproducible products. This course teaches students to understand and apply the design process, apply adaptive design concepts in developing sketches, solve design problems while they develop, create and analyze product models using solid modeling computer design software.

Engineering II: Principles of Engineering (28492)

Full year, one credit

Grades 10-12

Prerequisite: Engineering I

This course provides an overview of engineering technology. Students develop problem-solving skills by tackling real-world engineering problems. Through theory and practical hands-on experiences, students address the emerging social and political consequences of technological change. Some of the topics covered will be an overview and perspective of engineering, the design process, communication and documentation, engineering systems, statics, materials and materials testing, and thermodynamics.

Engineering IV: Design and Development/Capstone Course (28494)

Full year, one credit

Grades 10-12

Prerequisite: Engineering I and II

In this capstone course, teams of students, guided by community mentors, work together to research, design, and construct solutions to engineering problems. Students synthesize knowledge, skills, and abilities through an authentic engineering experience. Students are expected to develop and formally present

an independent-study project and a team-oriented project that are critiqued by an evaluation committee

DRIVER EDUCATION AND SAFETY

Applicants for a driver's license who are under nineteen years of age must possess a Driver Education Authorization Card (DEC-1) which certifies completion of a driver education program which includes a parent/student driver education component (§22.1-205). **Failure to successfully complete the classroom component necessitates waiting until the age of nineteen before applying for a license.**

Driver Education and Safety (27010)

First semester, one-half credit

Driver Education and Safety (27011)

Second semester, one-half credit

Grades 10-12

Prerequisites:

- *Virginia Learner's Permit,*
- *Parent/guardian permission form,*
- *Minimum age of fifteen and one-half years, as of the first day of the semester for which enrolled. (Students will be selected for Driver's Education with preference given to the oldest students).*
- *A fee (based on state & APS funding) is charged for the behind-the-wheel instruction program. See page 17 for fee reduction/waiver information. The fee must be paid by the first week of classroom instruction.*
- *Students and their parents/guardians are required by state law (§22.1-205; HB1782) to attend the parent/student driver education component meeting (90 minutes) at the beginning of the course.*

The Driver Education course consists of periods of instruction divided between classroom and in-car education, including student experiences in simulators. Successful completion entitles the student to ½ credit, a Driver Education Certificate (DEC-1), and completion of the 45 hours of guided practice (parent log). *Students and their parents/guardians are required by state law (HB1782) to attend the parent student driver education component meeting (90 minutes) at the beginning of the course. The parent/student component meeting will start promptly at the advertised time and those arriving late will not be admitted.*

ENGLISH LANGUAGE ARTS

The English Language Arts Program in Arlington Public Schools focuses on the communication, reading, writing, and research skills students will need for success beyond high school. Courses are built on the study of literature, and students read and write both fiction and non-fiction.

Four English credits are required for graduation from high school in Virginia. Students select from a full range of courses. These courses include, but are not limited to, English, Intensified courses, Advanced Placement for grades 11 and 12, and electives.

Curriculum at all grade levels is aligned with the Virginia Standards of Learning.

English 9 (21130)

Full year, one credit

Identity is the central theme at Grade 9.

- Communication focuses on valuing both formal and informal classroom discourse as an important means of learning. Students produce, analyze, and evaluate media messages. Through group presentations and spoken interactions with teachers and classmates, students will improve their communication skills.
- Grammar instruction focuses on the basic conventions in sentences, phrases, and clauses.
- Literature focuses on the structures and literary frameworks of various genres. In addition, students will learn the structures of common forms of technical writing in the marketplace. Reading focuses on students taking more control of their reading processes, making decisions about how well they understand their reading, and using strategies to help them improve their comprehension.
- Writing focuses on students improving their basic skills of organization, coherency, and grammar. Students will use the writing process to draft and revise writing. They will use writing to learn as a basis for learning content and for developing pieces of writing.
- Vocabulary focuses on reviewing the basic structures of words and learning specialized language associated with genre study.
- Research and technology study focuses on students learning the conventions of

documenting primary and secondary sources and creating a research product.

This course is aligned with the Virginia Standards of Learning for Grade 9.

The following alternative course uses the basic structure and content of this course but offers more rigorous study for the particular group of students in the class.

English 9 (21132) and World History (22343), Intensified

Full year, two periods, two credits (one credit in English and one credit in World History)

Prerequisite: High academic achievement in both English and Social Studies. Teacher and/or counselor recommendation.

This course is designed for the needs of advanced students, and requires: extensive reading and writing, intensive grammar and vocabulary, rigorous study of fiction and nonfiction literature, and high-level performance in all strands of English language arts beyond that required in English 9. Through an interdisciplinary thematic approach, English and World History are taught together. Through the study of various genres of literature and nonfiction, students explore World History's thematic concepts of identity, culture, and conflict. This course is coordinated with gifted services within each school. The course is aligned with, but goes beyond the Virginia Standards of Learning for Grade 9. *Students will take the World History SOL test at the end of this course.*

English 10 (21140)

Full year, one credit

Community is the central theme of Grade 10.

- Communication focuses on developing a more critical stance toward interactions with others. Students analyze, produce, and examine similarities and differences between visual and verbal media messages.
- Grammar continues to be reviewed, taught, and utilized in student work. Usage (written grammar) is a focal area of instruction and assessment of student writing.
- Literature focuses on students' understanding the universality of human experience across cultures and time periods. (This coordinates with the Virginia Standards of Learning for history.)
- Writing focuses on students writing informatively about literature. Students will use the writing process to draft and revise writing. They will use writing to learn as a basis for learning content and for developing pieces of writing.

- Vocabulary is taught through reading, writing, and direct instruction. Vocabulary preparation for the PSAT/SAT is emphasized.
- Research and technology study focuses on students applying the conventions of documenting primary and secondary sources. Students access, evaluate, organize, and present information as part of a class presentation. They apply standards for documenting sources.

This course is aligned with the Virginia Standards of Learning for Grade 10.

During this course, students also learn how advertisers package information in a variety of media to influence consumers. Students write in a technical format to present consumer information.

The following alternative course uses the basic structure and content of the above course but offers more rigorous study for the particular group of students in the class.

English 10 Intensified (21142)

Full year, one credit

Prerequisite: High academic achievement in previous English classes. Teacher and/or counselor recommendation.

Community is the central theme of Grade 10.

This course is designed for the needs of gifted and advanced students, and requires extensive reading, intensive grammar, advanced vocabulary, rigorous study, and high-level performance **beyond** that required in English 10. Students prepare for the **PSAT/SAT**. Students read a survey of world literature from ancient times to the present in order to compare communities from different places and times. This course is coordinated with gifted services within each school.

English 11

There are two end-of-course (EOC) SOL examinations taken during Grade 11 for English. These tests are cumulative, and cover Grades 9, 10 and 11. Passing both SOL tests and the course earns two verified credits:

End of Course Tests in English include Writing (March) and Reading (May).

English 11 (21150)

Full year, one credit

National Perspectives is the central theme at Grade 11.

- Communication focuses on improving techniques for formal presentations and supporting ideas with appropriate documentation. Students examine how values and points of view are included or excluded and how media influences beliefs and behaviors.
- Grammar focuses on students reviewing basic grammar conventions related to parallel structures and style in paragraph and multi-paragraph writing.
- Literature focuses on students learning the general framework of American literature, both genres and themes. Students will also make connections within and across different disciplines, experiences, and cultures. Their reading process at Grade 11 focuses on students applying inferential skills to interpret their reading, particularly in relation to literary genres.
- Writing focuses on students writing persuasively about literature. Students will write technical forms common to business. Students will use the writing process to draft and revise writing. They will use writing to learn as a basis for learning content and for developing pieces of writing.
- Vocabulary is taught through reading, writing, and direct instruction. One focus is specialized language associated with American literature. Personal and reading vocabularies are expanded.
- Research and technology study focuses on students using the conventions of documenting primary and secondary sources to support a research product.

This course is aligned with the Virginia Standards of Learning for Grade 11.

The following alternative course uses the basic structure and content of this course but intensifies the student work for this particular group of students.

English Language and Composition, AP (31196)

Full year, one credit + 1.0 quality point

Grade 11

Prerequisite: High academic achievement in previous English classes. Teacher/counselor recommendation.

The English Language and Composition, AP course is designed to help students become skilled readers of prose written in a variety of periods, disciplines, and

rhetorical contexts and to become skilled writers who can compose for a variety of purposes. Students will become aware of the interactions among a writer's purposes, audience expectations, and subjects, as well as the way generic conventions and the resources of language contribute to effective writing. *Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point. (21196)*

Remedial Independent Self-Paced Education

(RISE) Writing (20201)

(RISE) Reading (20202)

One semester, one-half elective credit

Grades 11-12

Prerequisite: None

Students engage in remedial work in the academic areas for which they have passed the class but failed the SOL assessment. Instructional software and/or on-line programs may be used to supplement instruction. Although study will be teacher assisted, the majority of student work will be completed on an independent study basis. Courses offered for remediation include: English (writing), English (reading/literature and research), Algebra I, geometry, biology, earth science, world geography, and world history. *Note: Students will take this class on a pass/fail basis.*

English 12 (21160)

Full year, one credit

Prerequisite: None

Power is the central theme at Grade 12.

- Communication focuses on students planning and delivering extended oral presentations reflecting standards for the workplace and higher education.
- Grammar focuses on students reviewing basic grammar conventions related to formal documentation.
- Literature focuses on students learning the general framework of both British and world literature, both genres and themes. Reading process at Grade 12 focuses on students making connections among texts of various cultures, time periods, and genres. Students should bring to their reading a range of knowledge and experience with which to enrich their analyses and interpretation.
- Writing focuses on students writing analytically about fiction and nonfiction literature.
- Students will use the writing process to draft and revise writing. They will use writing to learn as a basis for learning content and for developing pieces of writing.

- Vocabulary is taught through reading, writing, and direct instruction. One focus is specialized language associated with British literature. Personal and reading vocabularies are expanded.
- Research and technology study focuses on students using the conventions of documenting primary and secondary sources to support a research paper.

English Literature and Composition, AP (31195)

Full year, one credit + 1.0 quality point

Grade 12

Prerequisite: High academic achievement in previous English classes. Teacher/counselor recommendation.

The English Literature and Composition, AP course is designed to engage students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students can deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students should consider a work's structure, style, and themes, as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone.

Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point. (21195)

English 9 HILTEX (20796)

Full year, one credit

Prerequisite: English language proficiency placement test, or successful completion of HILT B

This course is designed for English language learners who are identified as HILTEX (Level 3 or 4). This course follows the English 9 Standards of Learning.

English 10 HILTEX (20799)

Full year, one credit

Prerequisite: English language proficiency placement test, or successful completion of English 9 HILTEX

This course is designed for English language learners who are identified as HILTEX (Level 3 or 4). This course follows the English 10 Standards of Learning.

ELECTIVE ENGLISH LANGUAGE ARTS COURSES

To enrich their studies, increase their achievement, or to pursue their interests, students may take the courses listed below in addition to their required **Major English Language Arts** course.

Elements and Strategies of Reading (21180)**Full year, one credit****Grade 9***Prerequisites: None*

This course is highly recommended for students who are in need of additional reading support and strategies to prepare for SOL exams. The course includes fiction and nonfiction literature that will be new to the students, short passages appropriate for test preparation, and critical reading to enhance understanding. The course will be very focused on the improvement of reading and will use materials that will help students with reading in their other courses.

English 11 Extension (21185)**Full year, one credit****Grades 11-12***Prerequisites: None*

This course is designed for students who have exited from direct services in the HILT program and who need additional support in reading and writing to succeed in high school English and to prepare for SOL exams. Students will develop analytical reading and writing skills required for high school and beyond. The course will include both fiction and nonfiction texts.

Film Study (21446)**One semester, one-half credit****Grades TBD by school***Prerequisite: Current English teacher recommendation*

This course will provide students with grounding in film appreciation, production, and history. Students will be introduced to the major concepts and techniques filmmakers employ in producing a motion picture. After learning the technical aspects of film, students will also be exposed to classic movies and will evaluate their importance as works of art. The course will also hone students' oral and written communication skills as these are the keys to film analysis. *A credit earned in this course will fulfill the Career and Technical/Fine Arts credit requirement for graduation.*

Dynamic Communication (21517)**One semester, one-half credit****Grades 9-12***Prerequisite: None*

This course emphasizes the dynamics of the communication process: speaking, listening, and interacting. Voice development, use of gestures, and audience awareness are stressed as important components of this process. Students will learn techniques to develop confidence in effective discussions, presentations, speeches, interviews, and other social/business speech experiences.

Journalism: Broadcast (21218)**Full year, one credit****Grades 9-12***Prerequisite: Teacher recommendation plus interview with literary magazine instructor*

Students in this class will explore methods and techniques for reporting, producing, and delivering news and news programs via radio, television, and video/film media. Instruction will explore the responsibilities of professional broadcast journalists, editors, producers, directors, and managers. Students will also have hands-on experience of the principles of broadcast technology; broadcast reporting; on- and off-camera and microphone procedures and techniques; program, sound, and video/film editing; program design and production; and professional standards and ethics.

Journalism: Literary Magazine (21207)**Full year, one credit****Grades 9-12***Prerequisite: Teacher recommendation plus interview with literary magazine instructor*

Students in this class produce a magazine of student literary writings. Exact course description varies by high school. Please see your high school's description for details.

Journalism: Newspaper (21205)**Full year, one credit****Grades 9-12***Prerequisite: Teacher recommendation plus interview with Newspaper instructor*

Expository writing is the main emphasis of this course. The writing includes but is not limited to news, features, editorials, sports, column, and critique writing. Interview and research techniques are constantly used to prepare the writing. The mechanics of newspaper production, including copy-editing, layout and design, typography, headline writing, photography and picture cropping, and various printing techniques are presented. Class size is determined at the school level.

Journalism: Yearbook (21209)**Full year, one credit****Grades 9-12***Prerequisite: Teacher recommendation for excellence in writing, completion of yearbook application, and an interview with the yearbook sponsor.*

Students in this class are responsible for the publication of the school yearbook. Students use their expository writing skills in most aspects of the work, including feature, headline, and caption writing. Students learn and use the mechanics of magazine production: layout styles, central theme, copy editing, typography, photography, picture cropping, using art with print, and printing techniques.

HEALTH AND PHYSICAL EDUCATION

Two years of health and physical education are required for graduation. To meet this requirement, students generally are scheduled for health and physical education classes in grades 9 and 10. In grades 11 and 12 physical education courses may be elected for a semester or a full year. A program of adaptive physical education is also available in grades 9 through 12.

Health I (27320)

One semester, half credit

Grade 9

This course integrates a variety of health knowledge skills, and behaviors. Students will identify health resources and become advocates for a healthy lifestyle for themselves, family and community. Students will demonstrate their knowledge in emergency first aid and the use of an AED and hands-on practice of skills necessary to perform CPR. Areas of study include emotional, mental, social, and environmental health, safety and emergency preparedness, relationships, substance abuse and disease prevention, and family life education.

Health and Physical Education (27330)

Washington-Lee and Wakefield only

Full year, one credit

Grade 9

Prerequisite: Concurrent enrollment in HILT

This course is designed to enable the student with limited English-speaking ability to participate in a positive physical fitness/health education program. Areas of study include emotional, mental, social and environmental health, safety and emergency preparedness, relationships, substance abuse and disease prevention and, family life education.

Health and Physical Education I (27300)

Full year, one credit

Grade 9

Prerequisite: None

This course integrates a variety of health knowledge skills, and behaviors. Students will identify health resources and become advocates for a healthy lifestyle for themselves, family and community. Students will demonstrate their knowledge in emergency first aid and the use of an AED and hands-on practice of skills necessary to perform CPR. Areas of study include emotional, mental, social, and environmental health, safety and emergency preparedness, relationships, substance abuse and disease prevention, and family life education. This instruction will also provide students an opportunity to demonstrate their

knowledge and skills in a variety of lifetime activities. Instruction will show the importance of energy balance and nutrition. Students will plan fitness goals and demonstrate knowledge and skills to improve their personal fitness.

Health and Physical Education II (27400)

Full year, one credit

Grade 10

Prerequisite: Health and Physical Education I

Students will demonstrate health and wellness knowledge and skills. Areas of instruction include emotional, mental, social and environmental health; safety and emergency preparedness; relationships; substance abuse, and disease prevention; family life education; and health/medical career promotion. Students will understand principles of exercise physiology biomechanics and anatomy through participation in a variety of lifetime activities. This course emphasizes lifetime physical fitness through individual, group, dance and recreational pursuits. It emphasizes personal fitness by designing, implementing, self-assessing, and modifying a personal fitness plan.

Adaptive Physical Education (27670) Grade 9

Adaptive Physical Education (27680) Grade 10

Adaptive Physical Education (27690) Grade 11

Adaptive Physical Education (27700) Grade 12

Students may be enrolled in Adaptive Physical Education by the school nurse upon recommendation by parents, occupational and/or physical therapist, or the family physician. The physical activities of each individual are developed with the aid and cooperation of the parent, school nurse, family physician, and instructor. The family physician should identify activities which are contraindicated for the disability of the student.

ELECTIVE PHYSICAL EDUCATION COURSES

Physical Education III (27510)

First semester; (27515) Second semester

One semester, one-half credit

Grades 11-12

Physical Education IV (27610)

First semester; (27615) Second semester

One semester, one-half credit

Grades 11-12

Prerequisite: Physical Education I, II

This course provides students with the opportunity to participate in physical activities for specific purposes. Options for offering specialized movement courses can be configured by the students' needs. Students will self-select areas of concentration to study from the following examples:

- Aerobics
- Aquatics (swimming, kayaking, life guarding)
- Dance
- Individual sports/activities
- Outdoor pursuits
- Advanced Weight Training & Conditioning
- Skating
- Self-Defense

20789 HILT A Social Studies (*elective credit*)

20775 HILT A Accelerated Literacy Language Development (*elective credit*). Native language support may be provided as needed.

20776 HILT A Accelerated Literacy Reading (*elective credit*)

20790 HILT B English (*English credit*)

20791 HILT B Reading (*elective credit*)

20793 HILT B Social Studies (*elective credit*)

HIGH INTENSITY LANGUAGE TRAINING

The high school High Intensity Language Training (HILT) Program provides intensive English and content instruction for identified students in grades 9-11. Students are placed in HILT A (Level 1) or HILT B (Level 2) based upon language proficiency assessments. Students are taught by an endorsed ESL or content teacher. *Students may be recommended for HILT A Accelerated Literacy based on Language Services Registration Center assessments.* The HILT/HILTEX curriculum is aligned with the Virginia English Language Proficiency Standards (WIDA) and Virginia Standards of Learning.

HILT students study integrated language arts, social studies, and science for four class periods, and take other elective classes. Placement in mathematics is flexible, based on student readiness. Students earn both English and elective credit in the HILT Program. English credit is marked after the courses entitled HILT A and HILT B English, and this partially fulfills the English requirement for graduation. Students may earn two English credits while they are in the HILT Program. *All other HILT classes, including the HILT A Accelerated Literacy classes, carry elective credit.* Credit is awarded at the end of the year based upon successful classroom performance and achieving recommended scores on the WIDA ACCESS for ELLs assessment, the Reading Inventory, writing samples and other local assessments, and student portfolios. Not all students study in HILT classes for the same length of time.

High Intensity Language Training (HILT) (20775-20793)

Full year, up to five credits

Grades 9-11

Prerequisite: English Language proficiency assessments

20780 HILT A Science (*elective credit: does not meet science requirement for graduation*)

20781 HILT B Science (*elective credit: does not meet science requirement for graduation*)

20786 HILT A English (*English credit*)

20787 HILT A Reading (*elective credit*)

20788 HILT A Speaking/Writing (*elective credit*)

HIGH INTENSITY LANGUAGE TRAINING EXTENSION (HILTEX)

The high school High Intensity Language Training Extension (HILTEX) Program provides instruction for identified students in grades 9-12 who have completed the HILT Program or who have been recommended to the program based on proficiency assessments. HILT Extension curricula (Levels 3 and 4) consist of two class periods of integrated language arts. Students are taught by an endorsed ESL teacher or content endorsed teacher. Students are also enrolled in general education content classes.

Credit is awarded at the end of the year based upon successful classroom performance and achieving recommended scores on the WIDA ACCESS for ELLs assessment, the Reading Inventory, writing samples and other local assessments, and student portfolios. Not all HILTEX students study in the HILTEX program for the same length of time.

English credit is earned for English 9 HILTEX and English 10 HILTEX. The other HILTEX courses carry elective credit. Students may earn two English credits while they are in the HILTEX program.

High Intensity Language Training Extension (HILTEX) (20794-20799)

Full year, up to three credits

Grades 9-12

Prerequisite: English Language proficiency assessments

20794 Reading 9 HILTEX (*elective credit*)

20796 English 9 HILTEX (*English credit*)

20797 Reading 10 HILTEX (*elective credit*)

20799 English 10 HILTEX (*English credit*)

MATHEMATICS

The mathematics program in Arlington emphasizes the mathematics students will need for study beyond high school, for careers, and for effective citizenship. All students are encouraged to study mathematics each year they are in school. Course offerings make it possible for students to progress as far as their achievement allows.

Students and families interested in exceptions to course prerequisites or dual enrollment in mathematics courses should see page 2 under Exceptions to Course Prerequisites. These students need to speak with their mathematics teacher.

High School General Mathematics (23120)

Full year, one elective credit

Grades 9-12

Prerequisite: Math 8

Students will develop their understanding of whole number, fraction, decimal and percent computation and estimation. These concepts will be applied to practical problem-solving in the areas of measurement, probability, statistics and geometry. Students will learn pre-algebra content, including rational numbers, ratio and proportion, integers, variable expressions and equations, and graphing. ***This course will not fulfill the mathematics credits requirement; it does provide an elective credit.***

Math Foundations (23111)

Full year, one elective credit

Grades 9-12

Prerequisite: None

This course is intended for students with interrupted schooling who are enrolled in the HILT program. Students will develop their understanding of whole number, fraction, decimal and percent computation and estimation. These concepts will be applied to practical problem solving in the areas of measurement, probability, statistics, and geometry. ***This course will not fulfill the mathematics credits requirement; it does provide one elective credit.***

Pre-Algebra (23113)

Full year, one elective credit

Grades 9-12

Prerequisite: None

This course is intended for students with interrupted school who are enrolled in the HILT program. Students will learn pre-algebra content, including rational numbers, ratios & proportions, integers, variable expressions & equations, and graphing. A variety of Strategies to target content, process, and language development will be implemented.

This class will not fulfill the mathematics credits requirement; it does provide one elective credit.

Algebra I, Part I (23131)

Full year, one credit after successful completion of 23132 or 23130

This full-year, one-period course includes properties of the real number system, the coordinate plane, linear equations and inequalities, systems of equations, functions, and problem solving. Students will earn an elective credit for this course, unless they are seeking a modified standard diploma; this course counts as a math credit for a modified standard diploma. After this course, students should take Algebra I, Part II. Students do NOT take an SOL test at the end of this course, but content from this course appears on the Algebra I SOL test at the end of Algebra I, Part II.

Algebra I, Part II (23132)

Full year, one credit

Grades 9-11

Prerequisite: Grade "C" or better in the previous mathematics course and teacher recommendation

This full year, one-period course includes a review of Algebra I, Part I and then adds these topics: exponents, radicals, polynomials, solving and graphing quadratic equations, statistics, and problem-solving. This course counts as a mathematics credit for all students. Prior to this course, students should have taken Algebra I, Part I. *Students take the Algebra I SOL test at the end of this course. Passing the test and the course earns a verified mathematics credit towards graduation.*

Algebra I (23130)

Full year, one credit

Grades 9-12

Prerequisite: Grade "C" or better in the previous mathematics course and teacher recommendation

This course includes properties of the real number system, linear equations and inequalities, systems of equations and inequalities, exponents, radicals, rational expressions and equations, polynomials, factoring, solving and graphing quadratic equations, functions, statistics, and problem-solving. Students take the Algebra I SOL test at the end of this course. *Passing the SOL test and the course earns a verified credit.*

Strategies, Algebra I (23124)

Full year, one elective credit

Grades 9-12

Prerequisite: None

The Strategies, Algebra I course is an elective course for students who need additional support for success in Algebra I. Students enrolled will build background knowledge, experience more conceptual approaches to

the content, and develop the core course content more thoroughly. Concurrent enrollment in Algebra I (23130) is required.

Geometry (23143)
Full year, one credit
Grades 9-12

Prerequisite: Grade "C" or better in Algebra I, Algebra I Block, or Algebra I Part II

Geometry involves the student in the study of mathematical structure through the use of deductive reasoning and the application of direct and indirect proof. This course covers the concepts of transformations, congruence, parallelism, similarity, and perpendicularity, as well as the properties of circles, polygons, and solids. Algebra I concepts are reviewed and applied to coordinate geometry. *There is a Geometry end-of-course SOL test. Passing the SOL test and the course earns a verified credit.*

Geometry, Intensified (23141)
Full year, one credit
Grades 9-12

Prerequisite: Grade "B" or better in middle school Intensified Algebra I or Grade "A" in high school Algebra I and teacher recommendation

Intensified Geometry is a rigorous study of logical reasoning through the use of plane and solid figures and the concepts of Algebra I. The student is expected to demonstrate deductive thinking within a postulational system by constructing original direct, indirect, and coordinate proofs. This course is designed for students who intend to matriculate in the Advanced Placement Program. *There is a Geometry end-of-course SOL test. Passing the SOL test and the course earns a verified credit.*

Geometry, Principles (23142)
Full year, one credit
Grades 10-12

Prerequisite: Grade "C" or better in Algebra I or Algebra I part II or Grade "D" or better Algebra I or Algebra I part II if student has completed and passed the course a second time

Geometry, Principles is a course designed to enable the student to view geometry through applications. The unity of mathematics is demonstrated through the appropriate use of algebra in developing geometric principles. Such topics as angles, congruence, similarity, parallelism, triangles, transformations, quadrilaterals and circles are included. The requirements, with respect to coordinate and deductive proof, are less demanding than those of regular geometry. *There is a Geometry end-of-course SOL test. Passing the SOL test and the course earns a verified credit.*

Strategies, Geometry (23128)

Full year, one elective credit

Grades 9-12

Prerequisite: None

The Strategies, Geometry course is an elective course for students who need additional support for success in Geometry. Students enrolled will build background knowledge, experience more conceptual approaches to the content, and develop the core course content more thoroughly. Concurrent enrollment in Geometry (23143) or Geometry, Principles (23142) is required.

Algebra, Functions & Data Analysis (23145)

Full Year, one credit

Grade 11-12

Prerequisite: Geometry

This course is intended to be an extension of Algebra I concepts toward a conceptual overview of Algebra II topics with the context of mathematical modeling and data analysis. Using a discovery approach to learning, students will study the broad characteristics of functions and their behaviors and solve problems that require the formulation of linear, quadratic, exponential, logarithmic equations or a system of equations or inequalities. Students will develop a global understanding of these functions which will aid a more detailed study in subsequent courses. Probability, experimental design and implementation, and analysis of data will be incorporated into the study of functions, and data will be generated by practical applications arising from real life scenarios.

Algebra II (23135)

Full year, one credit

Grades 10-12

Prerequisite: Grade "C" or better in Algebra I and Geometry

This course is an extension of Algebra I and Geometry. The Algebra II curriculum includes a thorough treatment of quadratics, polynomials, powers, roots, radicals, rationals, and the functions associated with these topics. The study of conics, logarithms, exponential functions, complex numbers, sequences, series, and permutations, combinations, and probability and statistics is included. The uses of technology and applications are integral parts of this course. *There is an end-of-course SOL test in Algebra II. Passing the SOL test and the course earns a verified credit.*

Algebra II/Trigonometry, Intensified (23136)

Full year, one credit

Grades 9-12

Prerequisite: Grade "B" or better in Geometry, Intensified and teacher recommendation or "A" in both Algebra I and Geometry and teacher recommendation

In addition to a more in-depth study of the content of Algebra II (23135) the following topics are included

in this advanced course: trigonometry and trigonometric functions. The uses of technology and applications are integral parts of this course. *There is an end-of-course SOL test in Algebra II. Passing the SOL test and the course earns a verified credit.*

Strategies, Algebra II (23126)

Full year, one elective credit

Grades 9-12

Prerequisite: None

The Strategies, Algebra II course is an elective course for students who need additional support for success in Algebra II. Students enrolled will build background knowledge, experience more conceptual approaches to the content, and develop the core course content more thoroughly. Concurrent enrollment in Algebra II (23135) is required.

Mathematics for the Liberal Arts I/II (93160W)

Full year, one credit, + 1 quality point

Grade 12

Prerequisite: Qualifying score on the NOVA placement exam; Grade "C" or higher in Algebra, Functions, and Data Analysis or Algebra II

This dual-enrollment course with NOVA's Math 151/152 presents topics in sets, logic, numeration systems, geometric systems, elementary computer concepts, functions, combinatorics, probability, statistics and algebraic systems. The general purpose of this course is to give the student an appreciation for the uses of mathematics in the contemporary world and to develop ability by the student to solve certain mathematical problems in a logical manner.

- **College credit:** *This course is dual-enrolled at Northern Virginia Community College (NOVA) as Math 151/152 for a total of 6 credits at NOVA pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*

Remedial Independent Self-Paced Education (RISE) Algebra (20203)

(RISE) Geometry (20204)

One semester, one-half elective credit

Grades 11-12

Prerequisite: Students have passed the class(es) but failed the SOL assessment(s) and are lacking the necessary verified credits to graduate.

Students study/do remedial work in the academic areas in which they have passed the class but failed the SOL assessment, using instructional software and/or on-line programs. Although study will be teacher assisted, the majority of student work will be completed on an independent study basis. Courses

offered for remediation include: English (writing), English (reading/literature and research), Algebra I, Geometry, Biology, Earth Science, World Geography, and World History. *Note: Students will take this class on a pass/fail basis.*

Mathematical Analysis-Trigonometry (23155)

Full year, one credit

Grades 10-12

Prerequisite: Grade "A" and teacher recommendation in Algebra II, Principles or grade "C" or better in Algebra II or grade "D" or better in Algebra II, Intensified and teacher recommendation

This course is an in-depth study of trigonometry and advanced algebra topics. The 12-18-week study of trigonometry will include triangle and unit circle trigonometry and trigonometric functions and their applications. Advanced algebra topics will include an extension of previous algebra skills, exponential and logarithmic functions, and rational expressions. Additional topics may include probability, sequences and series, and discrete mathematics. The uses of technology and applications are integral parts of this course.

Precalculus/Trigonometry (23162)

Full year, one credit

Grades 11-12

Prerequisite: Grade "C" or better in Mathematical Analysis - Trigonometry or Algebra II, Intensified

This course consists of an integrated review of elementary functions: polynomial, linear, exponential, logarithmic, and trigonometric. Other major areas include a study of analytic geometry, parametric equations, polar coordinates, sequences and series, discrete mathematics, vectors, matrices, and an introduction to limits and derivatives. The uses of technology and applications are integral parts of this course.

Precalculus, Intensified (23164)

Full year, one credit

Grades 10-12

Prerequisite: Grade "B" or better in Algebra II/Trigonometry, Intensified and teacher recommendation

This course offers the student a study of the same topics as those in Precalculus (23162), but the material is covered in greater depth and enriched with more emphasis on abstract concepts and mathematical structure. It provides the student with the necessary skills and concepts for the study of calculus the following year. In addition, the following topics may be included: vectors, analytic geometry of lines and planes in space, transformations of the plane, development of the concept of the limit of a sequence, and completeness of the real number system. The uses of technology and applications are integral parts of this course.

Probability and Statistics (23190)**Full year, one credit****Grades 9-12***Prerequisite: Grade "C" or better in Algebra II, Principles or Algebra II*

This course offers an introduction to modern statistics and probability. Students learn the fundamental ideas of probability, some of which are applied to developing statistical methods in the next part of the course. The study of statistics includes the construction and interpretation of statistical graphs, measures of central tendency and variation, methods of sampling, binomial and normal distributions, and hypothesis testing, confidence intervals, regression, correlation, probability, permutations and combinations. Applications are emphasized and computers may be used to simulate probability experiments, illustrate statistical concepts, and perform statistical analyses.

Statistics, AP (33192)**Full year, one credit + 1.0 quality point****Grades 11-12***Prerequisite: Grade "B" or better in Algebra II and teacher recommendation or grade "B" or better in Algebra II, Intensified, and teacher recommendation*

This course provides the advanced mathematics student the opportunity to study the topics included in the Advanced Placement Statistics syllabus as provided by the College Entrance Examination Board. Topics include the study of probability and probability distributions, descriptive statistics such as measure of central tendency and dispersion, random numbers and simulation, confidence intervals, hypothesis testing for one and two sample data, contingency tables, correlation, and regression analysis. The uses of technology and computer software to analyze data are emphasized. *Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point. (22192)*

Calculus AB, AP (33177)**Full year, one credit + 1.0 quality point****Grades 10-12***Prerequisite: Grade "C" or better in Precalculus, Intensified, and teacher recommendation. Grade "B" or better in Precalculus and teacher recommendation or grade "A" in Mathematical Analysis-Trigonometry and teacher recommendation*

A review of those topics needed for the study of calculus; theory of limits, differential calculus and its applications; integral calculus and its applications, problem solving at the calculus level; and those topics which are contained in the Advanced Placement Calculus AB syllabus as given by the College Entrance Examination Board. *Students are required to*

take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point. (23177)

Calculus BC, AP (33179)**Full year, one credit + 1.0 quality point****Grades 10-12***Prerequisite: Grade "B" or better in Precalculus, Intensified, and teacher recommendation or grade "A" in Precalculus and teacher recommendation*

In addition to the topics in Calculus AB, vector functions, polar areas, volumes, sequences, and series are covered. Limits and proofs are given more stress than in Calculus AB. Details may be found in the syllabus for Calculus BC published by the College Entrance Examination Board. *Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point. (23179)*

The following dual enrollment courses may be taught as independent study, online courses at some locations. Please consult your school counselor for more information.

Multivariable Calculus (93178W)**Full year, one credit + 1.0 quality point****Grades 10-12***Prerequisite: Successful completion of Calculus BC, a score of 3 or above on the AP BC Calculus Exam, and passing score on the Northern Virginia Community College English Placement Test*

Multivariable Calculus is offered for those students who have completed the Calculus BC prior to their senior year. Some of the topics the course will cover are: graphing three dimensional surfaces, integration and differentiation of vector valued functions, limits and continuity of functions of two or more variables, partial derivatives, multiple integrals, directional derivatives and gradients, vector fields, Green's Theorem, and Stoke's Theorem.

- **College credit:** *This course is dual-enrolled at Northern Virginia Community College (NOVA) as Math277 for a total of 4 credits at NOVA pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*

Vector Calculus (93175W)

**One Semester, one-half credit + 1.0 quality point
Grade 12**

Prerequisite: Successful completion of Calculus BC, a score of 3 or above on the AP BC Calculus Exam, and passing score on the Northern Virginia Community College English Placement Test

Vector Calculus is offered for those students who have completed Calculus BC prior to their senior year. Some of the topics the course will cover are: graphing three dimensional surfaces, integration and differentiation of vector valued functions, limits and continuity of functions of two or more variables, partial derivatives, multiple integrals, directional derivatives and gradients, vector fields, and Green's Theorem. *Note that this course may be offered only online, via independent study.*

- **College credit:** This semester course is dual-enrolled at Northern Virginia Community College (NOVA) as Math277 for a total of 4 credits at NOVA pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.

Linear Algebra (93165W)

**One Semester, one-half credit + 1.0 quality point
Grade 12**

Prerequisite: Successful completion of Calculus BC, a score of 3 or above on the AP BC Calculus Exam, and passing score on the Northern Virginia Community College English Placement Test

Linear Algebra is offered for those students who have completed Calculus BC prior to their senior year. Students will learn about systems of linear equations, vector spaces, linear transformations, and eigenvalues. This course will improve students' quantitative reasoning and develop deductive logic skills. *Note that this course may be offered only online, via independent study.*

- **College credit:** This semester course is dual-enrolled at Northern Virginia Community College (NOVA) as Math285 for a total of 3 credits at NOVA pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.

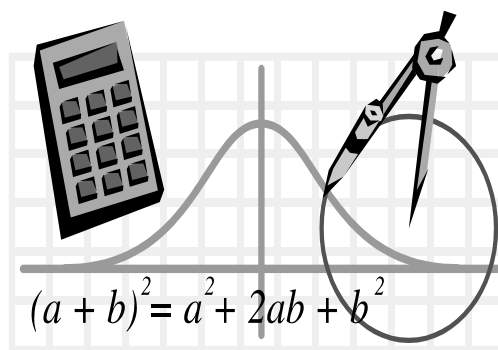
Differential Equations (93180W)

**One Semester, one-half credit + 1.0 quality point
Grade 12**

Prerequisite: Successful completion of Calculus BC, a score of 3 or above on the AP BC Calculus Exam, and passing score on the Northern Virginia Community College English Placement Test

Differential Equations is offered for those students who have completed Calculus BC prior to their senior year. This course introduces first order differential equations, linear differential equations, numerical methods and applications. Some of the topics the course will cover are: techniques of solving first order differential equations, homogeneous and non-homogeneous linear differential equations with constant coefficients, systems of linear differential equations using eigenvalues, and applied problems. *Note that this course may be offered only online, via independent study.*

- **College credit:** This semester course is dual-enrolled at Northern Virginia Community College (NOVA) as Math291 for a total of 3 credits at NOVA pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.



Arlington Public Schools' Recommended High School Mathematics Course Pathways 2017-2018

Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Algebra I, <i>Intensified</i>	Geometry, <i>Intensified</i>	Algebra II/Trigonometry, <i>Intensified</i>	Precalculus, <i>Intensified</i>	Calculus BC, AP	Multivariable Calculus, DE; Vector Calculus, DE; Linear Algebra, DE; Differential Equations, DE; Statistics, AP; or Computer Science, AP
	Algebra I, <i>Intensified</i>	Geometry, <i>Intensified</i>	Algebra II/Trigonometry, <i>Intensified</i>	Precalculus, <i>Intensified</i>	Calculus BC, AP; Statistics, AP; or Computer Science, AP
	Algebra I*	Geometry* or Geometry, <i>Intensified</i> (see row above)	Algebra II* or Algebra II/Trigonometry, <i>Intensified</i> (see row above)	Precalculus/Trig. or Precalculus/Trig., DE (CC)	Calculus AB, AP; Calculus, DE (CC); Statistics, AP; or Computer Science, AP
			Algebra Functions & Data Analysis	Math Analysis/Trigonometry	Statistics, AP; Computer Science, AP; Mathematics for the Liberal Arts I and II, DE; Precalculus/Trig; or Probability & Statistics
	Math 8*	Algebra I*	Geometry* or Geometry, <i>Principles</i> *	Algebra II*	Math Analysis/Trigonometry
				Algebra Functions & Data Analysis (AFDA)	Algebra II*
		Algebra 1, Part 1	Algebra I, Part 2	Geometry* or Geometry, <i>Principles</i> *	Algebra II* or Algebra Functions & Data Analysis (AFDA)
		Math Foundations & Prealgebra (ESOL/HILT)	Algebra I*		

The pathways are flexible, and movement is not limited to staying in one row. Students may accelerate as they are ready to do so.

**Students needing additional support may be concurrently enrolled in Algebra I, Geometry, or Algebra II and a Strategies course.*

AP = Advanced Placement (College Board); DE = Dual Enrollment with NOVA; CC = Career Center offering

SCIENCE

The Arlington Public Schools is committed to providing a comprehensive science program. The ideal science curriculum engages all students while providing opportunities for those students demonstrating a heightened science interest and aptitude.

A full range of science offerings is available to all students. In addition, enhanced science opportunities are provided through an intensified science sequence and advanced placement programs.

Note: It is important to note the math prerequisites at each course level to ensure sequential progress within the intensified science sequence and advanced placement programs.

HILTEX Biology (24317) Laboratory course

Full year, one credit

Grades 10-12

Prerequisite: HILT or placement test at the Intake Center

This course consists of a basic study of the cell, plants, animals, and human biology. Students work both independently and cooperatively on laboratory investigations and textbook materials.

There is an end-of-course SOL Examination. Passing the SOL test and the course earns a verified credit.

Biology (24310) Laboratory course

Full year, one credit

Grades 9-12

Prerequisite: Reading at or above the ninth grade level

This course covers the development of biological concepts applicable to everyday living. Content includes the use of various methods of science and a study of cells, microbiology, plants, animals, genetics, physiology, and ecology. Emphasis is placed on laboratory work to encourage critical thinking. A variety of supplementary materials is used to stimulate and encourage students of varying abilities. *There is an end-of-course SOL Examination. Passing the SOL test and the course earns a verified credit.*



Intensified Biology (24315) Laboratory course

Full year, one credit

Grade 9

This course is designed for the capable and motivated student seeking a rigorous and comprehensive secondary science experience. Topics covered include molecular biology, cytology, genetics, cell physiology, ecology, and a survey of the biological kingdoms. Extensive laboratory technique, experimentation, and analysis are emphasized. *There is an end-of-course SOL Examination. Passing the SOL test and the course earns a verified credit.*

Biology, AP (34370) Laboratory course

Full year, one credit + 1.0 quality point per credit

upon completion of both credits and AP exam, double periods, concurrent enrollment with (34371)

Grades 11-12

Prerequisite: Successful completion of Intensified Science sequence or first level courses in biology and chemistry and permission of the instructor

Advanced Placement Biology is a college level biology course which presents students with an in-depth study of all of the major areas of biology. The course outline has been developed by the College Entrance Examination Board based on a recent survey of college biology courses. Through this course student are prepared to take the Advanced Placement Biology examination for which college credit may be awarded. Course content reflects the following three major topics: Molecules and Cells, Heredity and Evolution, and Organisms and Populations. A rigorous laboratory program is based on the laboratory activities required in the Advanced Placement Biology syllabus. *Students are required to take the AP exam associated with the two required courses. Students not taking the exam will not earn the additional quality point for either course. (24370) (24371)*

Selected Topics in Biology (34371)

Full year, one credit, double periods

Grades 11-12

Prerequisite: Concurrent enrollment in Advanced Placement Biology (34370)

Laboratory experience is an essential element of aspect of the course. The recommended biology laboratory topics include: diffusion and osmosis, enzyme catalysis, mitosis and meiosis, plant pigments and photosynthesis, cell respiration, molecular biology, genetics of organisms, population genetics and evolution, transpiration, physiology of the circulatory system, animal behavior, dissolved oxygen and aquatic primary productivity.

Chemistry (24410) Laboratory course**Full year, one credit****Grades 10-12**

Prerequisite: Successful completion of Algebra I or equivalent course

The primary goal is to give students a broad introduction to the fundamental aspects of chemistry, which could be applied to future studies in chemistry or to daily life. Concepts are reinforced through numerous laboratory activities. *There is an end-of-course SOL Examination. Passing the SOL test and the course earns a verified credit.*

Intensified Chemistry (24415) Laboratory course**Full year, one credit****Grades 10-11**

Prerequisite: Successful completion of Intensified Biology or Intensified Earth Science and completion or concurrent enrollment in Algebra II or permission of the instructor

This course aims to prepare students for college-level work in chemistry. The course provides a thorough introduction to the structure and behavior of atoms and molecules and the principles governing chemical reactions. Laboratory work, stressing analysis of quantitative data, is emphasized. *There is an end-of-course SOL Examination. Passing the SOL test and the course earns a verified credit.*

**Chemistry, AP (34470) Laboratory course,
Full year, one credit + 1.0 quality point per credit
upon completion of both credits and AP exam,
double periods, concurrent enrollment with
(34471)**

Grades 11-12

Prerequisite: Successful completion of Intensified Science sequence or first level course in Chemistry and permission of the instructor

Advanced Placement Chemistry is a college level course designed to develop an in-depth understanding of the major areas of chemistry. The curriculum is based on the topics included in the Advanced Placement Chemistry syllabus provided by the College Entrance Examination Board. Emphasis is placed on chemical calculation, mathematical formulation of principles, and laboratory work. *Students are required to take the AP exam associated with the two required courses. Students not taking the exam will not earn the additional quality point for either course. (24470) (24471)*

Selected Topics in Chemistry (34471)**Full year, one credit, double periods****Grades 11-12**

Prerequisite: Concurrent enrollment in Advanced Placement Chemistry (34470)

The focus of the Selected Topics class will be lab work that allows the students to gain experience with traditional laboratory exercises and to have opportunities to design and carry out their own investigations. Topics of study include, but are not limited to, atomic theory and atomic structure, chemical bonding, nuclear chemistry, gases, liquids and solids, solutions, reaction types, stoichiometry, equilibrium, kinetics, and thermodynamics.

Earth Science (24210) Laboratory course**Full year, one credit****Grades 9-12**

Prerequisite: Reading on or above ninth grade level

Earth Science is an introduction to geology, oceanography, meteorology, and astronomy. The course includes the formation of rocks and minerals, land forms and changes, interrelationships of the earth's interior, surface and land features, a study of the solar system, and cosmic phenomena. Laboratory experiences within these areas of study are provided. *There is an end-of-course SOL Examination. Passing the SOL test and the course earns a verified credit.*

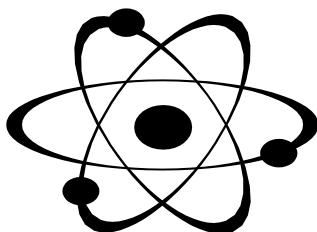
Intensified Earth Science (24215) Laboratory course,**Full year, one credit****Grades 9-12**

This course is designed for the capable and motivated student seeking a rigorous and comprehensive secondary science experience in geology, oceanography, meteorology, and astronomy. The course includes the formation of rocks and minerals; landforms and changes; interrelationships of the earth's interior, surface, and land features; a study of the solar system; and the life and death of stars. Laboratory technique, experimentation, and analysis are emphasized. *There is an end-of-course SOL Examination. Passing the SOL test and the course earns a verified credit.*

Physics, Principles of (24500) Laboratory course,**Full year, one credit****Grades 10-12**

Prerequisite: None

The course is designed to be an introduction to the important ideas in physics. Topics will be dealt with on a conceptual level. The first semester emphasizes the study of motion and forces. The second semester emphasizes the study of light, electricity, magnetism, and nuclear physics.



Physics (24510) Laboratory course**Full year, one credit****Grades 10-12**

Prerequisite: Successful completion of or concurrent enrollment in Algebra II or an equivalent course

The primary goal of the course is to give a broad introduction to the fundamental topics/ideas in physics. Emphasis will be placed on the use of mathematical skills in solving problems involving motion, forces, momentum, energy, heat, light, electricity, and magnetism.

Intensified Physics (24515) Laboratory course**Full year, one credit****Grades 11-12**

Prerequisite: Successful completion of Intensified Biology and Intensified Chemistry and successful completion of or concurrent enrollment in Algebra II or an equivalent course

This course is designed for highly capable and motivated students. Intensified Physics is a thorough and rigorous introduction to classical mechanics, thermodynamics, waves, light, electromagnetism, quantum mechanics, relativity, and nuclear physics on the high school level. The course emphasizes the development of mathematical and other problem-solving skills. Laboratory work involving quantitative data collection and analysis will be stressed.

**Physics I, AP (34578) Laboratory course,
Full year, one credit + 1.0 quality point per credit
upon completion of both credits and AP exam,
double periods, concurrent enrollment with
(34568)**

Grades 11-12

Prerequisite: Successful completion of Pre-calculus or Math-Analysis/Trigonometry or completion of Physics Intensified or Physics. Concurrent enrollment in Selected Topics in Physics I, AP is required.

This is an algebra-based physics course that is equivalent to a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; mechanical waves; and sound. It will also introduce electric circuits. *Students not taking the exam will not earn the additional quality point for either course. (24578) (24568)*

Selected Topics in Physics I, AP (34568)**Full year, one credit, double periods****Grades 11-12**

Prerequisite: Concurrent enrollment in Physics I, AP (34578)

The predominant focus of the Selected Topics class will be in-depth lab work that challenges the students to apply knowledge to real life. Topics of study will complement the material taught in Physics I, AP.

**Physics II, AP (34579) Laboratory course,
Full year, one credit + 1.0 quality point per credit
upon completion of both credits and AP exam,
double periods, concurrent enrollment with
(34569)**

Grades 11-12

Prerequisite: Successful completion of Pre-calculus or Math-Analysis/Trigonometry or completion of Physics Intensified or Physics. Concurrent enrollment in Selected Topics in Physics II, AP is required.

This is an algebra-based physics course that is equivalent to a second-semester college course in algebra-based physics. The course covers fluid mechanics; thermodynamics; electricity and magnetism; optics; and atomic and nuclear physics. *Students not taking the exam will not earn the additional quality point for either course. (24579) (24569)*

Selected Topics in Physics II, AP (34569)**Full year, one credit, double periods****Grades 11-12**

Prerequisite: Concurrent enrollment in Physics II, AP (34579)

The predominant focus of the Selected Topics class will be in-depth lab work that challenges the students to apply knowledge to real life. Topics of study will complement the material taught in Physics II, AP.

**Physics C: Mechanics and Electricity &
Magnetism, AP (34570) Laboratory course,
Full year, one credit + 1.0 quality point per credit
upon completion of both credits and AP exam,
double periods, concurrent enrollment with
(34571)**

Grade 12

Prerequisite: Successful completion of Intensified Science sequence or first level course in Physics and permission of the instructor. Successful completion of or concurrent enrollment in Calculus AB, AP or BC, AP.

Physics C, AP represents the first part of a university-level sequence in physics. Calculus is used to derive physical principles and to solve problems. A rigorous laboratory program is conducted that complements the advanced placement syllabus. The first semester is an in-depth study of Newtonian Mechanics and the second semester is concerned entirely with Electricity and Magnetism. *Students are required to take the AP exam associated with the two required courses. Students not taking the exam will not earn the additional quality point for either course. (24570) (24571)*

Selected Topics in Physics C (34571)**Full year, one credit, double periods**

Prerequisite: Concurrent enrollment in Advanced Placement Physics C: Mechanics and Electricity & Magnetism (34570)

Selected Topics in Physics provides students the opportunity to extend laboratory experiences in mechanics and electricity and magnetism. In addition, students have the opportunity to study other areas of physics. These topics emphasize laboratory explorations, critical thinking, and represent the opportunity to engage in independent research. Topics include, but are not limited to, relativity, waves, alternating current circuits, and energy conversions.

Astronomy (24700) Laboratory course**Full year, one credit****Grades 11-12**

Prerequisite: Successful completion of Earth Science or Physics

Astronomy is an introductory study of the universe, its contents and physical laws. Content includes solar system physics, celestial navigation, constellation study, and cosmology. Laboratory activities provide exercises in celestial mechanics and observations and predictions of astronomical events.

Remedial Independent Self-Paced Education**(RISE) Biology (20205)****(RISE) Earth Science (20206)****One semester, one-half elective credit****Grades 11-12**

Prerequisite: Students have passed the class(es) but failed the SOL assessment(s) and are lacking the necessary verified credits to graduate.

Students study/do remedial work in the academic areas in which they have passed the class but failed the SOL assessment, using instructional software and/or on-line programs. Although study will be teacher assisted, the majority of student work will be completed on an independent study basis. *Note: Students will take this class on a pass/fail basis.*

**FULL YEAR SCIENCE PROGRAMS
(CAREER CENTER)****Biotechnology Techniques and Applications
(28467)****Full year, two credits****Grades 10-12**

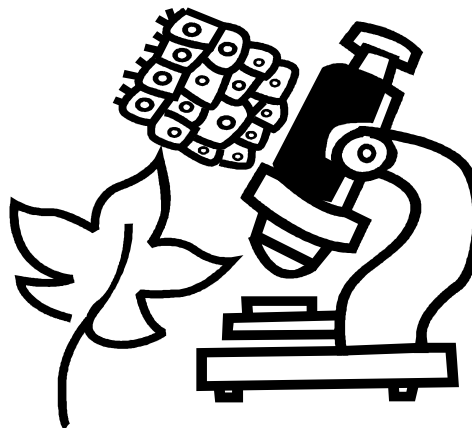
See page 83 for description of this course.

**Emergency Medical Technician/Basic Human
Anatomy and Physiology (98334W)****Full year, two periods, two credits + 1.0 quality
point****Grades 10-12**

See page 87 for description of this course.

**Physical Therapy/Sports Medicine Technology
(28332)****Full year, two periods, two credits (Optional: 105
clinical hours for three credits)****Grades 10-12**

See page 89 for description of this course.



SUGGESTED SCIENCE COURSE SEQUENCES 2017-18

Courses taken prior to high school	Middle School Courses Grades 6-8					Minimally Algebra I (23130) or Algebra I Intensified (13140)
	Suggestion: Ninth grade course selection will determine subsequent year course selections.					
9th Grade Freshman Year		Standard Biology (24312)	HILTEX Biology (24317)	Earth Science (24210)	Biology (24310)	Intensified Biology (24315) Intensified Earth Science (24215)
10th Grade Sophomore Year ++	Standard Biology (24312) HILTEX Biology (24317) Earth Science (24210) Biology (24310)	Earth Science (24210) *Chemistry (24410)	Earth Science (24210) *Chemistry (24410)	Biology (24310)	Earth Science (24210) *Chemistry (24410) *Intensified Chemistry (24415) Intensified Earth Science (24215)	*Chemistry (24410) *Intensified Chemistry (24415) Intensified Earth Science (24215) Intensified Biology (24315)
11th Grade Junior Year++	Standard Biology (24312) HILTEX Biology (24317) Earth Science (24210) Biology (24310) *Chemistry (24410)	Earth Science (24210) *Chemistry (24410) Principles of Physics (24500) *Physics (24510)	Earth Science (24210) *Chemistry (24410) Principles of Physics (24500) *Physics (24510)	*Chemistry (24410) *Intensified Chemistry (24415) Principles of Physics (24500) *Physics (24510) *Intensified Physics (24515) Astronomy (24700)	Earth Science (24210) *Chemistry (24410) *Intensified Chemistry (24415) Principles of Physics (24500) *Physics (24510) *Intensified Physics (24515) Astronomy (24700) Intensified Earth Science (24215)	*Physics (24510) *Intensified Physics (24515) **Biology, AP (34370) **Chemistry, AP (34470) Intensified Earth Science (24215)
12th Grade Senior Year++	Intensified Earth Science (24215) Biology (24310) *Chemistry (24410) Principles of Physics (24500) *Physics (24510)	Earth Science (24210) *Chemistry (24410) Principles of Physics (24500) *Physics (24510) **Biology, AP (34370) **Chemistry, AP (34470) **Physics C, AP (34570) Environmental Science, AP (34270)	Earth Science (24210) *Chemistry (24410) Principles of Physics (24500) *Physics (24510) **Biology, AP (34370) **Chemistry, AP (34470) **Physics I, AP (34578) **Physics II, AP (34579) **Physics C, AP (34570) Environmental Science, AP (34270)	*Chemistry (24410) *Intensified Chemistry (24415) Principles of Physics (24500) *Physics (24510) *Intensified Physics (24515) Astronomy (24700) **Biology, AP (34370) **Chemistry, AP (34470) **Physics I, AP (34578) **Physics II, AP (34579) **Physics C, AP (34570) Environmental Science, AP (34270)	Earth Science (24210) *Chemistry (24410) *Intensified Chemistry (24415) Principles of Physics (24500) *Physics (24510) *Intensified Physics (24515) Astronomy (24700) **Biology, AP (34370) **Chemistry, AP (34470) **Physics I, AP (34578) **Physics II, AP (34579) **Physics C, AP (34570) Intensified Earth Science (24215) Environmental Science, AP (34270)	*Physics (24510) *Intensified Physics (24515) **Biology, AP (34370) **Chemistry, AP (34470) **Physics I, AP (34578) **Physics II, AP (34579) **Physics C, AP (34570) Intensified Earth Science (24215) Environmental Science, AP (34270)

NOTES: This chart outlines the recommended course sequences for students who are to complete three or more science courses for graduation. Students may select one or more courses from each block, thus varying the sequence of or year of enrollment in some courses.

*Requires completion or concurrent enrollment in specific mathematics courses. See the Science course descriptions.

**Requires successful completion of Intensified Science Sequence or first level courses in Biology and Chemistry or permission of the instructor.

+Additional science courses offered at Washington-Lee High School that may fulfill graduation requirements include: IB Environmental Systems and Societies (SL) (34275), IB Sports, Exercise and Health Science (SL) Part I (38055), IB Sports, Exercise and Health Science (SL) Part II (38057), IB Physics SL Part I (34576), IB Biology HL Part I(34376), IB Chemistry HL Part I(34476), IB Physics SL Part II (34577), IB Biology HL Part II(34377), and IB Chemistry HL Part II(34477).

++ Additional science courses offered at the Career Center that may fulfill science graduation requirements include: Biotechnology Techniques and Applications (28467), Emergency Medical Technician (28334), Physical Therapy (28332).

SOCIAL STUDIES

The Arlington Public Schools offer a comprehensive social studies program that develops essential knowledge, skills and values that enable students to become informed, responsible and reasoned citizens of a democratic society and an interdependent world.

A full range of offerings is available to all students, including intensified and advanced placement courses.

World History and Geography

This is one of the courses required for high school graduation. It is generally taken in grade 9, but may be taken in other grades after consultation with a counselor. Credit for World History may be taken in several forms as follows.

- **English 9 (21132) and World History (22343), Intensified**
- **(22345) World History & Geography: 1500 AD to the present, HILTEX**
- **(22216) World History & Geography: 1500 AD to the Present**
- **(22215) World History & Geography: Beginnings to 1500 AD**

English 9 (21132) and World History (22343), Intensified

Full year, two periods, two credits (one credit in English and one credit in World History)

Prerequisite: High academic achievement in both English and Social Studies. Teacher and/or counselor recommendation.

This course is designed for the needs of advanced students, and requires: extensive reading and writing, intensive grammar and vocabulary, rigorous study of fiction and nonfiction literature, and high-level performance in all strands of English Language Arts beyond that required in English 9. Through an interdisciplinary thematic approach, English and World History are taught together. Through the study of various genres of literature and nonfiction, students explore World History's thematic concepts of identity, culture, and conflict. This course is coordinated with gifted services within each school. The course is aligned with, but goes beyond the Virginia Standards of Learning for Grade 9. *Students will take the World History SOL test at the end of this course.*

World History & Geography: 1500 AD to the present HILTEX (22345)

Full year, one credit

Grade 9

Prerequisite: Assignment by Department of Counseling Services in conjunction with Social Studies/HILT Departments

This course is especially designed to meet the graduation requirement in World History for limited English speaking students. The course parallels the content offered in the regular World History course, but uses materials more suited to their reading and skill development levels. The course relates the subject matter in World History to student experiences and learning styles and follows a more conceptual framework than the traditional chronological approaches. *An SOL Examination is required. Passing the SOL test and the course earns a verified credit.*

World History & Geography: 1500 AD to the Present (22216)

Full year, one credit

Grade 9

Prerequisite: None

This course will focus on the significant events, people, and ideas of western and non-western civilizations from 1500 AD to the present. The concept of "identity" will be the organizing theme for this course of study. Students will view themselves relative to the changes in political, economic, social, cultural, and geographic developments of contemporary history since 1500 AD. A brief review of ancient civilizations will take place at the beginning of the course. Students will study four eras of history: expansion of world populations around 1500 AD, encounters and exchanges of exploration, the age of revolutions, and the world since World War I. *Passing the SOL test and the course earns a verified credit.*

World History & Geography: Beginnings to 1500 AD (22215)

Full year, one credit

Grades 10-12

Prerequisite: None

This fast-paced, challenging course will focus on an interdisciplinary study of ancient western and non-western civilizations from the beginnings of humankind to about 1500 AD. Students will read literature, compare and contrast philosophies and religions, investigate archaeological findings, research the beginnings of written language, analyze works of art, music, and dance, examine patterns of human and environmental interaction, and investigate historical and legal documents that describe cultures of this time period. *This course will prepare students to take the World History & Geography: Beginnings to 1500 AD*

SOL exam. This course, with a prerequisite of the post-1500 AD world history geography course, fulfills a requirement for the Advanced Studies Diploma candidates or is counted as an elective for Standard Diploma candidates. Passing the SOL test and the course earns a verified credit.

World History & Geography: Beginnings to 1500 AD (22219), Intensified

Full year, one credit

Grades 10-12

Prerequisite: None

This course, designed for advanced students, is a rigorous study of ancient world history from the dawn of humanity to about 1500 AD. An emphasis on integrating the humanities-literature, art, drama, and philosophy-will provide students a broad perspective of human development in the western and non-western worlds. From the earliest human settlements to the most advanced civilizations of the ancient world, students will learn the origins and growth of “community,” the focus of the course. As a result, this course will provide students with an excellent foundation for the understanding of the nature of our modern global community in terms of security, institutions, values and beliefs, culture, and the interaction with other communities. Specifically, students will study the Stone Age, early river valley civilizations, Ancient Greece and Rome, the Byzantine Empire, the rise of Christianity and Islam, the early Middle Ages, and the development of civilization in East Asia, India, Africa, and Mesoamerica. *This course will prepare students to take World History & Geography: Beginnings to 1500 AD SOL exam. This course fulfills a requirement for the Advanced Studies Diploma and serves as an elective for the Standard Diploma.*

Economics and Personal Finance (22212)

Full year, one credit

Grades 10-12

Prerequisite: None

This course explores the general scope of economics and personal finance. The course explores the American enterprise system, economic principles, economics of supply/demand, labor and industry, the Federal Reserve System, governmental fiscal policies, and the comparison of economic systems of major countries and economics philosophies to develop an understanding of the impact of global trade. Students learn the major areas in financial and investment planning, stock market, annuities, return on investments, retirement and estate planning, consumer credit and money management, budgeting, financial statements, insurance and risk management, home ownership, planning for college education, payroll

taxes, consumer protection laws and financial responsibilities. *Segments of this course will be taught online, thereby satisfying the graduation requirement for a virtual course. The WISE Financial Literacy Test will be administered at the end of the course for students to earn the graduation requirement of a Career and Technical credential. The course incorporates all economics and financial literacy graduation requirements. Students may also fulfill this graduation requirement through successful completion of AP or IB Economics. Students who successfully complete this course and a CTE course may qualify for completer status. This course may be used as a social studies, family and consumer sciences, or business credit for graduation. Consult with your guidance counselor for more information.*

Virtual Economics and Personal Finance (22212V)

Full year, one credit

Grades 10-12

Prerequisite: None

This course explores the general scope of economics and personal finance. The course explores the American enterprise system, economic principles, economics of supply/demand, labor and industry, the Federal Reserve System, governmental fiscal policies, and the comparison of economic systems of major countries and economics philosophies to develop an understanding of the impact of global trade. Students learn the major areas in financial and investment planning, stock market, annuities, return on investments, retirement and estate planning, consumer credit and money management, budgeting, financial statements, insurance and risk management, home ownership, planning for college education, payroll taxes, consumer protection laws and financial responsibilities. *This course will be taught in a virtual format thereby satisfying the online graduation requirement for a virtual course. The WISE Financial Literacy Test will be administered at the end of the course for students to earn the graduation requirement of a Career and Technical credential. The course incorporates all economics and financial literacy graduation requirements. This course may be used as a social studies, family and consumer sciences, or business credit for graduation. Consult your guidance counselor for more information.*

United States and Virginia History

This is one of the courses required for high school graduation. It is generally taken in grade 11, but may be taken in other grades after consultation with a counselor. Credit for Virginia and United States History may be taken in several forms.

(22360) United States and Virginia History
(32319) United States and Virginia History, AP
(22375) American Civilization (combined with English) *Note: See additional courses listed for Wakefield, Washington-Lee, and Yorktown.*

United States and Virginia History (22360)

Full year, one credit

Grade 11

Prerequisite: None

This course is organized around the theme of *perspectives*. The course objectives focus on the significant people, places, and events in American and Virginia history whose influence, position, and point of view have affected geography and environment, the democratization process, the development of enterprise, the evolution of global interaction, the impact of scientific and technological developments, and the meaning of the American Dream. *There is an end-of-course SOL Examination. Passing the SOL test and the course earns a verified credit.*

United States and Virginia History, AP (32319)

Full year, one credit + 1.0 quality point

Grade 11

Prerequisite: Teacher recommendation; "B" or better in previous high school social studies and English courses

This course is part of the Advanced Placement Program of the College Entrance Examination Board which makes demands on students equivalent to those of an introductory college course. Students electing this course in place of the regular Virginia and United States History course are expected to read extensively, give time to abstract concepts and thoughts, and deal with various topics in American History. The Advanced Placement syllabus gives a complete course description. Students electing this course are expected to work with materials and texts on an advanced level. *There are both an SOL Examination and an AP Exam at the end of the course. Passing the SOL test and the course earns a verified credit. Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point. (22360)*

Virtual US and Virginia History (22360V)

Full year, one credit

Grade 11

Prerequisite: None

This course is organized around the theme of perspectives. This course objective focus on the significant people, places, and events in American and Virginia history whose influence, position, and point of view have affected geography and environment, the democratization process, the development of enterprise, the evolution of global interaction, the impact of scientific, and technological developments, and the meaning of the American Dream. *This course will be taught in a virtual format thereby satisfying the online graduation requirement for the virtual course. There is an end-of-course SOL Examination. Passing the SOL test and the course earns a verified credit.*

United States and Virginia Government

Virginia and United States Government are required for high school graduation. Students may elect from among two different types of Virginia and United States Government courses.

(22440) United States and Virginia Government

(22446) HILT US/VA Government

(32445) United States and Virginia Government, AP

(92240W) United States and Virginia Government, Dual Enrollment

United States and Virginia Government (22440)

Full year, one credit

Grade 12

This course is organized around the theme of *power*. The objectives focus on the sources from which American governmental institutions derive their authority to function, and the applications of this authority to critical processes, procedures, and systems. The influence of various groups and the patterns of other world governments are also studied. The key concepts for study are the foundations of government, rights, responsibilities, liberties, institutions, political processes, public programs, policy making, and comparative political and economic systems.

HILT United States and Virginia Government

(22446)

Full year, one credit

Grades 9-12

This course emphasizes practical aspects of government and citizenship through literacy and skill development. Attention is given to basic American documents, state and local government, the function of the American political system and the understanding of how politics work at the national and

state level. This course is designed to provide, each student with a basic understanding of how government works and each person's as a citizen participating in the government.

United States and Virginia Government, AP (32445)

Full year, one credit + 1.0 quality point

Grade 12

Prerequisite: Recommendation of eleventh grade U.S. and Virginia History teacher

This course is part of the Advanced Placement Program of the College Entrance Examination Board, which makes demands on students' equivalent to those of an introductory year in political science at the college freshman level. The course is designed for the serious student who is willing to meet the demands of an in-depth analysis of both American Government and Politics and Comparative Government and Politics. In addition, course emphasis will be given to political theory and local and state government. Much emphasis is placed on writing and the student is expected to read extensively. *Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point. (22440)*

United States and Virginia Government, Dual Enrollment (92240W)

Full year, one credit + 1.0 quality point

Grade 12

Prerequisite: Students must meet the NOVA entrance requirements

The objectives of this course focus on the sources from which American governmental institutions derive their authority to function, and the applications of this authority to critical processes, procedures, and systems. The influence of various groups and the patterns of their world governments are also studied. The key concepts for students are the foundation of government, rights, responsibilities, liberty, institutions political processes, public programs policy making, and comparative political and economic systems. In addition, this course provides an in-depth analysis of American Government and Politics with emphasis on critical thinking and writing skills. *Some components of this course will be taught virtually. This course is only offered after school at a countywide location. The course meets twice weekly according to the NOVA college schedule.*

- **College Credit:** *This course is dual enrolled at Northern Virginia Community College (NOVA) as PLS 135-American National Politics and PLS 136- State and Local Politics for a total of 6 credits at NOVA pending acceptance at NOVA. The NOVA entrance requirements must be met before registering.*

The content of this course is taught at a college level. Please consult with your counselor for more details.

World Geography (22210)

Full year, one credit

Grades 9-12

Prerequisite: None

This course will focus on the interactions of people and their environment in such regions of the world as Africa, Asia, Australia, Central America, the Caribbean, Europe, the Middle East, North America, South America, and areas of the former Soviet Union. The five themes of **geography, location, place, human and environmental relationships, movement, and regions** will be used to study physical, cultural, political, economic, and other types of geography. *This course fulfills requirements for both the Advanced and Standard Studies Diplomas if the course as well as the SOL Examination are passed. Note: This course is identical to the World Geography course offered in the middle schools at grade eight.*

Remedial Independent Self-Paced Education

(RISE) World Geography (20208)

(RISE) World History II (20207)

(RISE) United States/Virginia History (20209)

One semester, one-half elective credit

Grades 11-12

Prerequisite: Students have passed the class(es) but failed the SOL assessment(s) and are lacking the necessary verified credits to graduate.

Students study/do remedial work in the academic areas in which they have passed the class but failed the SOL assessment, using instructional software and/or on-line programs. Although study will be teacher assisted, the majority of student work will be completed on an independent study basis. Courses offered for remediation include: English (writing), English (reading/literature and research), Algebra I, geometry, biology, earth science, world geography, and world history. *Note: Students will take this class on a pass/fail basis.*

World History, AP (32400)

Full year, one credit + 1.0 quality point

Grades 9-12*

Prerequisite: Teacher recommendation; "B" or better in previous social studies course

This course is part of the Advanced Placement Program of the College Entrance Examination Board that makes demands on students equivalent to those of an introductory college course. AP World History is a rigorous course that offers a balanced global coverage of Africa, the Americas, Asia and Europe. The scope

of the course is from 8000 B.C. to the present taught in five major time periods of history. Knowledge of year-to-year political events is not emphasized. Instead, knowledge of major developments of civilization in Africa, the Americas, Asia and Europe that illustrate six thematic areas is taught. The Advance Placement syllabus gives a complete course description. *Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point.* (22400) * Yorktown High School offers this course in Grades 10 - 12 only.

SOCIAL STUDIES ELECTIVE COURSES

European History, AP (32399)

**Full year, one credit + 1.0 quality point
Grades 10-12**

Prerequisite: Teacher recommendation; "B" or better in previous social studies course

This course is part of the Advanced Placement Program of the College Board which makes demands on students equivalent to those of an introductory college course. This rigorous course introduces students to cultural, economic, political, and social developments that played a fundamental role in shaping our world. Students are expected to demonstrate knowledge of the basic chronology, major events, movements, changes, and trends in Modern European history beginning with the Renaissance in the 1400s and ending with the creation of the European Union in the 1990s. This course stresses analytical thinking and writing skills, which are applied to document based question essays, seminars, class discussions and/or debates. The Advanced Placement syllabus gives a complete course description. *Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point.* (22399)

Human Geography, AP (32212)

**Full year, one credit + 1.0 quality point
Grades 10-12**

Prerequisite: Recommendation of current social studies teacher

This course is part of the Advanced Placement Program of the College Board which makes demands on students equivalent to those of an introductory level college course. AP Human Geography introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of the Earth's surface. Students learn to employ spatial concepts and landscape

analysis to examine human socioeconomic organization and its environmental consequences. On successful completion of the course, students should have developed skills that enable them to interpret maps and analyze geospatial data, understand, and explain the implications of associations and networks among phenomena in places, recognize and interpret the relationships among patterns and processes at different scales of analysis, define regions and evaluate regionalization process, and characterize and analyze changing interconnections among places. Geographic concepts emphasized through the course are location, space, place, scale, pattern, regionalization, and globalization. Topics covered will include: nature and perspectives of geography; population and migration; cultural patterns and processes; political organization of space, agriculture, food production and land use; industrialization and economic development; cities and urban land use. The Advanced Placement syllabus gives a complete course description. *Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point.* (22209)

Introduction to Law (22218)

**One semester, one-half credit
Grades 10-12**

Prerequisite: None

This course introduces students to the function of law in our society. It will include an overview of the American legal process, sources of laws, and the organization of both federal and state courts. Students will examine the litigation process, with comparisons between civil and criminal litigation. This course will include looking at and discussing constitutional protections, judicial policymaking, tort, contractual and constitutional law and criminal justice. Students will examine trial procedures and participate in class mock trials, simulations, and legal case studies.

Leadership Skills for Diversity Peer Trainers (22700)

**Full year, one credit
Grades 10-12**

Prerequisite: None

This course is designed to train students to facilitate workshops for their peers that address diversity issues and promote tolerance and mutual respect. Students will develop awareness and understanding of (1) prejudice, discrimination, stereotyping, and (2) the means by which they can become more directly involved in the school and community.

Psychology (22900)**Full year, one credit****Grades 10-12***Prerequisite: None*

This course introduces the student to the general field of psychology. Study includes the physiological basis of behavior, child growth and development, learning, personality, social psychology, abnormal psychology, and the adolescence and general psychological development of the human organism.

conflicts and discuss how foreign policy decisions and resolutions are made. Other topics covered include: diplomacy, international relations, institutions and organizations, human rights, terrorism, genocide, global and regional conflicts and issues, and recent and current events.

Psychology, AP (32902)**Full year, one credit + 1.0 quality point****Grades 11-12***Prerequisite: Recommendation of current social studies teacher*

The science of behavior is psychology. The purpose of the Advanced Placement Psychology course is to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Major topics in the AP course include the following: I. methods, approaches, and history. II. biological bases of behavior. III. sensation and perception. IV. states of consciousness. V. learning. VI. cognition. VII. motivation and emotion. VIII. developmental psychology. IX. personality. X. testing and individual differences. XI. psychological disorders. XII. treatment of psychological disorders. XIII. social psychology.

Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point. (22902)

Sociology (22500)**Full year, one credit****Grades 10-12***Prerequisite: None*

Sociology is the scientific study of groups of people and their impact on our individual lives. Emphasis is placed on an understanding of the "social facts" in each person's life. From parents to school teachers to our peers, groups of people impact who we are, what we value and who we will become. In-depth attention is also given to societal problems such as racism, and poverty and crime. The essential goal of Sociology is to help the student better understand society's impact on the individual and one's role within that society.

World Affairs (22388)**One semester, one-half credit****Grades 10 - 12***Prerequisite: None*

This course starts by reviewing the role of the United States in world affairs through the history of American foreign policy. We will examine the role of the United States and the United Nations in various

Suggested Arlington Public Schools High School Social Studies Pathways

The pathways are flexible and movement is not limited to staying in one column. Students may accelerate as they are ready to do so. Check graduation course requirements for Standard and Advanced Diploma. *

Grade 8	World Geography Suggestion: Ninth grade course selection will determine subsequent year course selections.				
Grade 9	<ul style="list-style-type: none"> World History and Geography: 1500 AD to the present (22216) or English 9 and World History and Geography: 1500 AD to the present (Yorktown Only) (22216/21130) or World History Intensified (22343) 	<ul style="list-style-type: none"> World History and --Geography: 1500 AD to the present (HILTEX) (22345) 	<ul style="list-style-type: none"> World History Intensified(22343) or World History and -- Geography: 1500 AD to the present (HILTEX) (22345) or World History AP (W-L and Wakefield Only) (32400) 	<ul style="list-style-type: none"> World History AP (W-L and Wakefield only) (32400) 	<ul style="list-style-type: none"> US/VA Part. 1 (IEP only) **
Grade 10	<ul style="list-style-type: none"> Economics and Personal Finance (22212) Virtual Economics and Personal Finance (22212V) or AP Economics (32806) (Wakefield and Yorktown only) World History and Geography: Beginnings to 1500 AD (22215) or World History and Geography: Beginnings to 1500 AD (22219) Intensified Human Geography, AP (32212) Introduction to Law (22218) Psychology (22900) Leadership Skills for Diversity (22700) Psychology, AP (32902) Sociology (22500) World Affairs (22388) 	<ul style="list-style-type: none"> Economics and Personal Finance (22212) Virtual Economics and Personal Finance (22212V) or AP Economics (32806) (Wakefield and Yorktown only) World History and Geography: Beginnings to 1500 AD (22215) or World History and Geography: Beginnings to 1500 AD (22219) Intensified Human Geography, AP (32212) Introduction to Law (22218) Psychology (22900) Leadership Skills for Diversity (22700) Psychology AP (32902) Sociology (22500) World Affairs (22388) 	<ul style="list-style-type: none"> AP Government (Pre-IB Students only at WL) (32445) 	<ul style="list-style-type: none"> AP Economics (32806) (Wakefield and Yorktown only) AP European History (32399) 	<ul style="list-style-type: none"> US/VA Part. 2 (IEP only)**
Grade 11	<ul style="list-style-type: none"> US/VA History (22360) or American Civilization (22375) and Economics and Personal Finance (22212) Human Geography, AP (32212) Introduction to Law (22218) Leadership Skills for Diversity (22700) Psychology (22900) or Psychology, AP (32902) Sociology (22500) World Affairs (22388) 	<ul style="list-style-type: none"> US/VA History (22360) or AP US History (32319) or American Civilization (22375) and Human Geography, AP (32212) Introduction to Law (22218) Psychology (22900) or Psychology, AP (32902) Leadership Skills for Diversity (22700) Sociology (22500) World Affairs (22388) 	<ul style="list-style-type: none"> IB History of the Americans HL Part 1 (32385) and IB Economics SL (32802) IB Geography SL (32210) IB Psychology SL (32901) HL Part I (32904) IB Philosophy SL (32600) IB Social Anthropology SL (32372) HL Part I (32374) 	<ul style="list-style-type: none"> AP US History (32319) 	<ul style="list-style-type: none"> Personal Living and Finance (20055) (IEP Only)**
Grade 12	<ul style="list-style-type: none"> US/VA Govt. (22440), HILT A US/VA Govt. (22446) or US/VA Govt DE (92240W) and Economics and Personal Finance (22212) Introduction to Law (22218) Leadership Skills for Diversity (22700) Psychology (22900) or Psychology, AP (32902) Sociology (22500) World Affairs (22388) 	<ul style="list-style-type: none"> US/VA Govt. (22440). Or AP US/VA Govt. (32445) or US/VA Govt DE (92240W) and Introduction to Law (22218) Leadership Skills for Diversity (22700) Psychology (22900) or Psychology, AP (32902) Sociology (22500) World Affairs (22388) 	<ul style="list-style-type: none"> IB Topics in 20th Century World History HL part 2 (32386) IB Economics SL (32802) IB Psychology SL (32901) HL Part II (32904) IB Philosophy (32600) IB Geography SL (32210) IB Social Anthropology SL (32372) Part II (32377) 	<ul style="list-style-type: none"> AP US/VA Govt. (32445) or AP US/VA Govt. and Comparative Govt. (32245) or US/VA Govt DE (92240W) and AP Psychology (32902) 	<ul style="list-style-type: none"> US/VA Govt. (20018) (IEP only) **

*Students must take a version of United States and Virginia History and a version of United States and Virginia Government as well as one course in either world history or geography or both to fulfill graduation requirements for a Standard diploma or two courses from this category for an Advanced Diploma.

**To earn a social studies credit for this course a student must complete both Part I and Part II, have a current Individual Education Plan in place which specifies this course, and take the associated VA SOL exam.

***Students must take a version of Economics and Personal Finance to fulfill graduation requirements for a Standard or Advanced Diploma.

SPECIAL EDUCATION

Special Education consists of a sequence of programs for students who have an identified special need. Instruction is individualized to meet the needs of the student. An Individualized Education Program (IEP) is developed for each student in accordance with federal law and Virginia regulations. For additional information concerning Special Education policies and procedures, contact the office of Special Education.

English 9 (20001)

Full year, one credit

Prerequisite: Student must be identified as in need of Special Education services

This course is a highly structured program designed to meet the needs identified in each student's IEP. Course work focuses on reading comprehension, spelling, vocabulary usage, sentence structure, paragraph development, and literature study through the short story, poetry, and the novel. Materials and textbooks are selected in accordance with the instructional level of the individual student.

English 10 (20002)

Full year, one credit

Prerequisite: Student must be identified as in need of Special Education services

This course is a highly structured program designed to meet the needs identified in each student's IEP.

Course work focuses on reading comprehension, vocabulary development, sentence mastery and paragraph development, review of basic grammar and mechanics, and literature study through the short story, poetry, and the novel. Materials and textbooks are selected in accordance with the student's instructional level.

Literature and Composition (20003)

Full year, one credit

Prerequisite: Student must be identified as in need of Special Education services

This course is an option for students who entered Grade 9 prior to 2013-2014 and who are eligible for a Modified Standard Diploma based on their IEP. This course is a highly structured program designed to meet the needs identified in each student's IEP. Course work focuses on reading comprehension, vocabulary development, composition writing which could include a research paper, study of grammar and mechanics, and literature study through the short story, poetry, and the novel. Materials and textbooks are selected in accordance with the student's instructional level. Students working toward a modified standard diploma will earn English credit upon successful completion of this course. *Students in*

this class will not be required to take an end-of-course SOL test.

English 12 (20004)

Full year, one credit

Prerequisite: Student must be identified as in need of Special Education services

This course is a highly structured program designed to meet the needs identified in each student's IEP. Content includes reading fiction and non-fiction, language usage, vocabulary study, and expository writing. Functional skills may also be included. Materials and textbooks are selected in accordance with the student's instructional level.

Reading (20015)

Full year, one credit;

(20006) Semester, one-half credit

Prerequisite: Student must be identified as in need of Special Education services.

This course is highly recommended for students who in need of additional reading support and strategies to prepare for SOL exams. The course includes fiction and nonfiction literature that will be new to the students, short passages appropriate for test preparation, and critical reading to enhance understanding. The course will be very focused on the improvement of reading and will use materials that will help students with reading in their other courses.

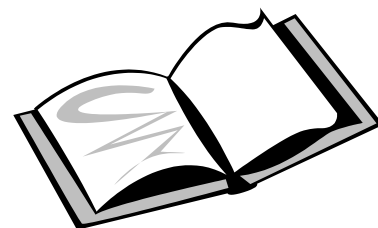
Algebra I Part I (20008)

Full year, one credit

Grades 9-12

Prerequisite: Student must be identified as in need of Special Education services

This course includes properties of the real number system, first-degree equations and inequalities, problem solving, graphing in the coordinate plane, and linear modeling. Students who are working toward a modified standard diploma will receive a mathematics credit upon successful completion of this course. Students who are seeking a standard diploma must go on to complete Algebra I Part II in order to receive a mathematics credit for this course. Completion of Part I and Part II of this sequence earns two mathematics credits toward graduation. The content of the Algebra I course (23130) is covered with the Algebra I SOL test given upon completion of Part II. Passing the SOL test earns verified credit.



Integrated Algebra and Geometry (20007)

Full year, one elective credit

Grades 9-12

Prerequisite: Student must be identified as in need of Special Education services

This course is an option for students who entered Grade 9 prior to 2013-2014 and who are eligible for a Modified Standard Diploma based on their IEP. This course will cover properties of the real number system, algebraic expressions and equations, graphing and interpretation of data, geometric measurement, plane and solid figures, ratios/proportions/percents, discussion as a means of developing understanding of the topics and increasing communication and higher level thinking skills. Students who are working toward a modified standard diploma will receive an elective credit upon successful completion of this course.

Selected Topics in Geometry (20054)

Full year, one credit

Prerequisite: Student must be identified as in need of Special Education services and have earned a grade of "D" or better in Algebra I, Part I

This course is an option for students who entered Grade 9 prior to 2013-2014 and who are eligible for a Modified Standard Diploma based on their IEP. This course is designed to enable the student to view geometry through applications with an emphasis on two- and three-dimensional reasoning skills, and coordination in geometry and the use of geometric models to solve problems. Such topics as angles, congruence, similarity, parallelism, triangles, quadrilaterals, and circles are included. Students who are working toward a modified standard diploma will receive mathematics credit upon successful completion of this course. *There is no end-of-course SOL examination.*

Personal Living and Finances (20055)

Full year, one credit

Prerequisite: Student must be identified as in need of Special Education services

This course is an option for students who entered Grade 9 prior to 2013-2014 and who are eligible for a Modified Standard Diploma based on their IEP. This course is designed to provide students with those skills necessary to handle personal business and finances. There is an emphasis on problem solving in areas such as banking and checking, wage-earning, loans and credit, and budgeting. Students who are working toward a modified standard diploma will receive mathematics credit upon successful completion of this course.

World Geography (20040)

Full year, one credit

Grades 9-12

Prerequisite: Student must be identified as in need of Special Education services

This course will focus on the interactions of people and their environment in such regions of the world as Africa, Asia, Australia, Central America, the Caribbean, Europe, the Middle East, North America, South America, and areas of the former Soviet Union. The five themes of geography: **location, place, human and environmental relationships, movement, and regions** will be used to study physical, cultural, political, economic and other types of geography. *This course fulfills requirements for both the Advanced and Standard Studies diplomas if the course and the SOL Examination are passed.* (This course is identical to the course offered in the middle schools in eighth grade.)

World History and Geography, 1500 AD to the Present, Part I (20051)

Full year, one credit

Prerequisite: Student must be identified as in need of Special Education services

This course focuses on the chronology of significant events, peoples and ideas of Western Europe from 1500 AD to the present. The various ways geography has influenced history will be explored with increasing attention given to the political, social, and economic changes affecting contemporary societies. The course parallels the content offered in the regular World History course, but uses materials and teaching/learning strategies suited to the needs of students with disabilities. *Students who are working toward a modified standard diploma will receive a social studies credit upon successful completion of this course. Students who are seeking a Standard or Advanced Studies Diploma must go on to complete World History and Geography 1500 AD to the Present, Part II in order to receive a social studies credit for this course. There is no end-of-course SOL examination.*

World History and Geography, 1500 AD to the Present, Part II (20052)

Prerequisite: Successful completion of World History and Geography, 1500 AD to the Present, Part I

This course focuses on the regional perspective of significant events, peoples, and ideals of Western Europe for 1500 AD to the present. Students will review content from Part I and then learn in-depth content for each world region during the established periods of history. *Students may earn Social Studies credit for this course. An end-of-course SOL Examination is required.*

United States and Virginia History, Part I (20016)
Full year, one elective credit upon completion of
US/VA History, Part II
Grades 9-12

Prerequisite: Successful completion of World Geography and student must be identified as in need of Special Education services and in need of Credit Accommodations

This course will span the time periods from America's discovery through the period of Reconstruction. The course objectives will focus on the influence of geography on American cultural politics and economy; the development of American government in meeting the needs of an evolving society; the impact of population movements on American society; the way that technological and scientific advancements have affected life in America; and the role of America as it evolved from a small confederation of states to a growing nation. Emphasis will be given to major issues and events in a chronological survey of Virginia and United States history. Materials and teaching/learning strategies suited to students reading skill development will be used. This is no end-of-course SOL Examination for this course.

United States and Virginia History, Part II (20019)
Full year, one social studies credit upon passing
US/VA History SOL Examination
Grades 10-12

Prerequisite: Successful completion of United States and Virginia History, Part I and student must be identified as in need of Special Education services and in need of Credit Accommodations

This course will span the time periods from America's post-Reconstruction era to the post-World War II era. The course objectives will focus on the influence of geography on American cultural politics and economy; the development of American government in meeting the needs of an evolving society; the impact of population movements on American society; the way that technological and scientific advancements have affected life in America; and the role of American as it has evolved from a growing nation to a global power. Emphasis will be given to major issues and events in a chronological survey of Virginia and United States history. Materials and teaching/learning strategies suited to students reading skill development will be used. There is an end-of-course SOL Examination covering content from US/VA Part I and US/VA Part II. Passing the SOL test and the course earns a verified credit.

United States History, Applications (20053)
Full year, one credit
Grade 11

Prerequisite: Student must be identified as in need of Special Education services

This course spans the time periods from America's discovery through the period of Reconstruction. The course objectives focus on the influence of geography on American culture, politics, and economy; the development of American government in meeting the needs of an evolving society; the impact of immigration and population movements on American society; the ways that technological and scientific advancements have affected life in America; and the role of America as a global power. Materials and teaching/learning strategies suited to students reading skill development will be used. *Students who are working toward a modified standard diploma will earn credit in Social Studies upon successful completion of this course. This course counts as a social science credit for students seeking a **Modified Standard Diploma**. There is no end-of-course SOL Examination.*

United States and Virginia History (20017)
Full year, one credit

Prerequisite: Student must be in the eleventh grade and have been identified as in need of Special Education services

This course is a highly structured program to meet the needs identified in each student's IEP. The student follows the historical development of society from its beginnings to the present. Emphasis is given to major issues and events in a chronological survey of Virginia and United States history. *An end-of-course SOL Examination is required.*

United States and Virginia Government (20018)
Full year, one credit

Prerequisite: Student must be in the twelfth grade and have been identified as in need of Special Education services

The course emphasizes practical aspects of government, citizenship, and skill development. Attention is given to basic American documents, state and local government, the functioning of the American political system, and understanding how politics work on the local level.

Applications in Earth and Space Science (24211)
Full year, one credit
Grades 10-12

Prerequisite: Student must be identified as in need of Special Education services

This course is an option for students who entered Grade 9 prior to 2013-2014 and who are eligible for a Modified Standard Diploma based on their IEP. This course is a study of the fundamental concepts common to earth space science to include geology, oceanography, meteorology, and astronomy. This is the first course of a two-part sequence and will include strategies to help students develop their skill in reading in the content area, study and organization,

and interdependence of various forms of data. *This course counts as a science credit for students seeking a Modified Standard Diploma. There is no end-of-course SOL examination.*

Biology, Part I (20020)

Full year, one credit

Prerequisite: Student must be identified as in need of Special Education services

This course is a study of the fundamental concepts common to Biology to include the cell; heredity and evolution; interdependence of organisms; matter, energy, and organization in living systems; and behavior of organisms. This is the first course of a two-part sequence and will include strategies to help students develop their skill in reading in the content area, study and organization, and interdependence of various forms of data. *This course counts as a science credit for students seeking a Modified Standard Diploma. There is no end-of-course SOL examination. This course may also count as a laboratory science credit for the Standard Diploma, with credit accommodations, if followed by Biology, Part II, and the Biology SOL exam.*

Biology, Part II (20021)

Full year, one credit

Prerequisite: Student must be identified as in need of Special Education services and must have successfully completed Biology, Part I

This course is a continued study of the fundamental concepts common to Biology to include greater depth of study of the cell; heredity and evolution; interdependence of organisms; matter; energy, and organization in living systems; and behavior of organisms. This is the second of a two-course sequence and will include strategies to help students continue to develop their skills in reading in the content area, study and organization, and interpretation of various forms of data. *There is an end-of-course SOL Examination. Students who complete this course and pass the Biology end-of-course SOL Examination will earn one verified science credit.*

Principles of Physics (20049)

Full year, one credit

Grades 10-12

Prerequisite: Students must be identified as in need of Special Education services

This course is an option for students who entered Grade 9 prior to 2013-2014 and who are eligible for a Modified Standard Diploma based on their IEP. This course is a study of the fundamental concepts of physics, motion, forces, light, electricity, magnetism, and nuclear physics. This course will include

strategies to help students develop their skills in reading in the content area, study and organization, and interpretation of various forms of data.

Instructional Studies (20028)

Full year, one credit; (20030)

Semester, one-half credit

Prerequisite: Student must be identified as in need of Special Education services

Course work is individualized based on the student's IEP and reinforces the needs of each student's general education courses. In addition, listening skills, writing skills, organizational and general study skills are emphasized.

Social Skills (20023)

Full year, one credit

Grades 9-12

The Social Skills class offers secondary students the opportunity to acquire and practice skills that are necessary for appropriate social interactions with others. Skills to be taught may include: Making and keeping friends, communicating with others, perspective taking, self-determination, working with groups, coping strategies for stress and frustration, and understanding the "unwritten rules" for social behavior. Organizational and self-advocacy will also be covered.

FUNCTIONAL ACADEMICS

The following classes are offered in a setting called Functional Life Skills. The curriculum content is in accordance with the student's instructional needs as delineated by an Individual Education Plan (IEP), and the Aligned Standards of Learning which supports the Virginia Alternative Assessment Program (VAAP). Curriculum focuses on developing functional life skills in the areas of communication, self-help, social skills, pre-vocational skills, and functional academic skills. Instruction takes place in a variety of natural settings within the school and community at large.

English (20035)

Full year, one credit

This course is a highly structured program designed to meet the needs identified in each student's IEP. Course work focuses on reading comprehension, spelling, vocabulary usage, sentence structure, paragraph development, and literature study through the short story, poetry, and the novel. Materials and textbooks are selected in accordance with the student's reading level.

Mathematics (20036)**Full year, one credit**

This course is a highly structured program designed to meet the needs identified in each student's IEP. Course work focuses on operations with whole numbers, fractions, decimals, integers, ratios and proportions, percent's, and measurement.

Social Studies (20039)**Full year, one credit**

This course is a highly structured program designed to meet the needs identified in each student's IEP. The student follows the historical development of society from its beginnings to the present. Emphasis is given to major issues and events in a chronological survey of Virginia and United States History.

Reading (20014)**Full year, one credit**

This course is a highly structured program designed to meet the needs identified in each student's IEP. Course work is designed to meet specific reading deficiencies as demonstrated by the student. In addition, reading for enjoyment and comprehension for specific skills that are necessary in utilizing other classroom materials are stressed.

Writing (20005)**One semester, one-half credit**

This course is designed to improve and refine paragraph development. Construction, editing, and proofreading skills are emphasized through descriptive, narrative, and expository writing. Students' progress to multi-paragraph reports. Correct sentence structure and a basic knowledge of paragraph form is required.

Living Skills (20026)**Full year, one credit****Grades 9-12**

Prerequisite: Student must be participating in the Life Centered Career Education Curriculum

This course will focus on four core areas including Health and Nutrition, Occupational Preparation, Home Maintenance, and Community Exploration. Concepts to be covered include but are not limited to basic personal health and awareness of the world, strengthening employment behaviors, menu planning, food preparation and establishing social relationships. This course may be taken more than one time for credit.

Science (20038)**Full year, one credit**

Prerequisite: Living Skills (20026)

This course will focus on basic personal health and awareness of the world. The concept of how one's personal health and grooming affect one's immediate

environment is emphasized. Many different types of materials are used. All concepts relate to everyday experiences.

VOLUNTEER SERVICES**Volunteer Service****Full year, (20155)****One semester, (20156)****Grades 9-12**

Credit earned as a volunteer is not counted toward total credits to fulfill graduation requirements.

The purpose of this program is to afford students pertinent learning experiences which increase their knowledge of the professional working responsibilities of the staff and many of the operational activities of the school. Close staff supervision is maintained for each student working with teachers, secretaries, and administrators. In addition, a job description by the adult supervisor which outlines specific responsibilities for volunteer service students is submitted to the administrative staff for approval. Many staff members and offices effectively utilize volunteer aides for a variety of clerical and non-clerical responsibilities which provide a wide range of learning experiences for students.



WORLD LANGUAGES

Students entering the Arlington Public Schools in grades 7-12 may receive world language credit for native language study and for the study of world languages. To receive world language credit, the following requirements must be met:

- A transcript verifying a minimum of 140 hours of formal language study for each credit must be submitted.
- The student must have earned a passing grade.
- A student's native language credits count as world language credit if the above requirements are met.
- A grade of "C" or better in the course must be verified if the student is to continue with the language in the Arlington Public Schools.
- A student may take one of the state approved credit-by-Exam offered by APS and earn up to four credits.

Speakers of other languages taught in the Arlington Public Schools should consult with counselors for placement testing.

Students seeking the Advanced Studies diploma will meet the world language requirements by completing three years/levels of study in one language or two years of study in each of two languages. Successful completion of each world language course results in one credit toward the Advanced Studies Diploma.

One or more levels of Arabic, Chinese, German, Japanese, and Latin may be delivered through distance learning technologies interspersed with face-to-face instruction. In some instances, languages may be available only through online courses by outside providers. Courses offered by online distance-learning providers elsewhere in the state or in the country have policies for grading, homework and attendance that may differ from those of APS.

American Sign Language I (25990)

Full Year, one credit

Grades 9 - 12

Prerequisite: None

Students will learn receptive and expressive language skills within the context of everyday interaction with others in their home, school, and community environments. Students will learn to ask and answer questions about family, school events and

celebrations. They will exchange essential information such as making introductions, leave-taking, getting attention and negotiating the signing environment using appropriate non-manual behaviors (i.e., facial expression, body posture, spatial organization). Students will study the history of American Sign Language and will explore aspects of Deaf culture.

American Sign Language II (25995)

Full Year, one credit

Grades 9-12

Prerequisite: Successful completion of ASL I, or equivalent proficiency as determined by the teacher

Students will expand and enhance the communicative skills in ASL. They will ask and respond to questions for clarification and be able to further express opinions and preferences regarding their everyday experiences and environment. Students will expand their vocabulary and conversational ability by studying more abstract topics and literary works. A deeper understanding of the Deaf community will also be a goal of this level, through the discussion of the community's norms and values. Students will gain an understanding of concepts that are unique to the Deaf community and their implications for language learning. They will be encouraged to interact with others using their ASL skills beyond the classroom level.

American Sign Language III (25997)

Full Year, one credit

Grades 9-12

Prerequisite: Successful completion of ASL II or equivalent proficiency as determined by the teacher

Students will apply the language skills and vocabulary acquired in previous levels to increase their conversational abilities, focusing on more abstract topics. These topics include literary works and current events and issues of the Deaf world. Students will deepen their understanding of the Deaf community through discussion of the community's norms and values. Through a more involved study of the ASL roots and linguistics, students will gain a better understanding of the language while also being able to compare it to their own language. Students will be encouraged to use the language both within and beyond the school setting. For example, students will interview members of the Deaf community on topics of personal interest, the greater community and/or world concern.

One or more levels of Arabic may be delivered through distance learning technologies. In some locations, Arabic may only be available via distance learning.

Arabic I (25800)

Full Year, one credit

Grades 9-12

Prerequisite: None

This level introduces students to the Arabic alphabet and sound system. This course is very rich in cultural and historical information. The history of the Arabic language, family tree of Arabic language and script are given. In addition to the initial focus on the sound and writing systems, students learn and reproduce sounds, stress patterns and intonation of the language. Basic grammatical structures and vocabulary are introduced so that students can produce basic formulaic exchanges in simple sentences and conversations in contexts appropriate to the novice level. Students will be able to write words and sentences accurately from dictation, read previously learned words and sentences, greet and introduce others, form simple questions and answers, engage in basic social interactions, talk about themselves, family members and others and exchange basic personal information. The principal topic around which language is developed is personal and family life.

Arabic II (25822)

Full Year, one credit

Grades 9-12

Prerequisite: Successful completion of Arabic I or equivalent proficiency as determined by the teacher

This course continues the development of listening, speaking, reading and writing at a novice proficiency level and revolves around daily life situations high school students in Arabic speaking countries may encounter. Students increase vocabulary building and continue to learn more about basic Arabic sentence structure and to apply basic grammatical structures for engaging in functional language. Upon completion of Arabic II, students will be able to initiate social interactions, and be aware of basic cultural perspectives. Students will be able to understand and respond to simple questions, short statements, and high frequency commands, especially on familiar topics. Using previously practiced or memorized sentences and phrases, students will be able to describe people, talk about how they look and feel, exchange information about hobbies and will be able to read and compose simple sentences and short paragraphs using previously learned material. They will also be familiar with some of the differences between formal and spoken Arabic. Topics include school and home life, social life and personal interests

and community life, including shopping, restaurants and food.

Arabic III (25830)

Full Year, one credit

Grades 9-12

Prerequisite: Successful completion of Arabic II or equivalent proficiency as determined by the teacher

Students continue to develop their listening, speaking, reading and writing skills. The content is focused on issues and challenges that relate to the lives of high school students. Themes and topics go beyond daily life situations into social issues related to the world around them. As part of the curriculum, students will be able to read and understand simplified texts that relate to issues that are of interest to Arabs as manifested in pop songs and poetry. Students will comprehend simple to more complex songs and video texts that revolve around familiar topics and be able to express views in simple terms about issues that rotate around the self and the people around you. Students will handle a number of uncomplicated communicative tasks relating to social situations and be able to read and understand basic instructions and standard messages and expressions such as those found on menus, maps and road signs. They will also understand main ideas in texts that are highly contextualized. Topics include additional and more sophisticated aspects of personal and family life, teen culture, future plans and choices and the environment.

Arabic IV (25840)

Full Year, one credit

Grades 9-12

Prerequisite: Successful completion of Arabic III or equivalent proficiency as determined by the teacher

This course continues the refinement of linguistic functions identified in the level III curriculum and develops more sophisticated communication skills with emphasis on the oral and written language. Themes focus on future plans and choices, current and historic events and the environment and include topics on careers, jobs and educational plans, national holidays and the arts, nature, ecology, conservation and eco-tourism. Students will be able to summarize, ask and answer questions related to themes and topics studied. In addition, students will be able to demonstrate an understanding of the practices, products and perspectives of the Arabic cultures and how they compare and contrast with their own culture.

Arabic V (25841)
Full year, one credit
Grades 9-12

Prerequisite: Successful completion of Arabic IV or equivalent proficiency as determined by the teacher

Arabic Level V is based on newspaper articles from different parts of the Arab world. The articles revolve around a number of themes, and the structure of the language is discussed and reviewed. Course material focuses on professional topics of everyday interest including health, economic and popular culture such as: Arab Markets (historical markets, markets of Jeddah, Om Derman market), and Arab Songs. At the end of the course, students should be able to read Arabic newspapers with a good general understanding, especially on familiar topics. Students should be able to express themselves by combining and recombining known elements.

One or more levels of Chinese may be delivered through distance learning technologies. In some locations, Chinese may only be available via distance learning.

Chinese I (25615)
Full Year, one credit
Grades 9-12

Prerequisite: None

Students develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. This communication is evidenced in all four language skills-listening, speaking, reading and writing. This course emphasizes the development of listening and speaking skills. Students are introduced to pinyin and also learn simplified Chinese characters that relate to the themes and grammatical elements targeted at this level. Students learn to recognize characters correctly, not only for reading, but also with the goal of developing their writing and ability to communicate in text on computers and on other electronic devices. Students begin to explore and study the themes of Personal and Family Life, School Life, Social Life, and Community Life.

Chinese II (25625)
Full Year, one credit
Grades 9-12

Prerequisite: Successful completion of Chinese I or equivalent proficiency as determined by the teacher

Students continue to develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. This communication is evidenced in all four language skills-listening, speaking, reading and writing-with emphasis on the ability to communicate orally. Students continue to expand their study on the themes of Personal and Family Life, School Life, Social Life, and Community Life, which were introduced in level I. Students continue to refine their writing skills in simplified Chinese. Students learn to recognize characters correctly, not only for reading, but also with the goal of developing their writing and ability to communicate in text on computers and on other electronic devices. In addition to the characters learned in level I, students are introduced to new simplified Chinese characters that relate to the themes and grammatical elements targeted at this level.

Chinese III (25630)
Full year, one credit
Grades 9-12

Prerequisite: Successful completion of Chinese II or equivalent proficiency as determined by the teacher

Students continue to develop and refine their proficiency in all four language skills-listening, speaking, reading and writing-with emphasis on the ability to interact orally. They communicate using more complex language structures on a variety of topics, moving from concrete to more abstract concepts. At this level, students comprehend the main ideas of the authentic materials that they read and hear, and they are able to identify significant details when the topics are familiar. Students gain a deeper understanding of the world around them while studying Rights and Responsibilities, Future Plans and Choices, Teen Culture, Environment, and Humanities while revisiting themes and topics from previous levels. However, the spiral character of the theme-based instruction requires students to demonstrate their communicative skills and sophistication at a new developmental level and understand announcements and messages connected to daily activities. Students present reports orally and/or in writing on topics being studied. They can write descriptions of people and objects from their everyday environment and school. Students also acquire information from a variety of sources about topics being studied. Student work will be required outside of class time.

Chinese IV (25640)
Full year, one credit
Grades 9-12

Prerequisite: Successful completion of Chinese III or equivalent proficiency as determined by the teacher

Students continue to develop and refine their proficiency in all four language skills-listening, speaking, reading, and writing-with emphasis on the ability to interact orally and in writing. They communicate using more complex language structures on a variety of topics, focusing on abstract concepts. At this level, students comprehend the main ideas of the authentic materials that they read and hear, and they are able to identify significant details when the topics are familiar. Students gain a deeper understanding of the world around them while studying Beijing, facets of China's traditional culture, social life, hobbies, the environment, work and college. Some familiar themes and topics from levels I, II, and III may reoccur at the same time. However, the spiral character of the theme-based instruction requires students to demonstrate their communicative skills and sophistication at a new developmental level. Students will be introduced to the Advanced Placement Chinese Language course and the College Board examination. Student work will be required outside of class time.

Chinese Language and Culture, AP (35860)
Full year, one credit
Grades 9-12

Prerequisite: Successful completion of Chinese IV

This course is designed to prepare high school students for the AP exam in May. It is a rigorous college level course equivalent to a fourth semester college course in Mandarin Chinese. Students will demonstrate proficiency in presentational, interpersonal and interpretative communication through listening, speaking, reading and writing; explore contemporary and historical Chinese cultures; study a variety of themes related to the Chinese Language and Culture as outlined by the College Board; broaden their global perspectives and compare Chinese cultures with their own environment. Students who are enrolled in a Virtual Virginia World Language course will be required to take a nationally recognized examination in their language as part of this course. Student work will be required outside of class time. *Students not taking the exam will not receive the quality point (25345).*

French I (25110)
Full year, one credit
Grades 9-12

Prerequisite: None

Students learn sounds, stress patterns, and intonation of the language. Basic structures and vocabulary are learned through practice in listening, speaking,

reading, and writing with emphasis on using language to communicate orally. Students express themselves both orally and in writing by recombining the vocabulary and language structures creatively. Students comprehend and read simple questions and statements about daily activities and interests. Students also learn basic information about the geography, customs and culture of the French speaking countries.

French II (25120)
Full year, one credit
Grades 9-12

Prerequisite: Successful completion of French I or equivalent proficiency as determined by the teacher

Students continue to develop their skills listening, speaking, reading and writing with an emphasis on oral communication. They participate in simple conversations about familiar topics using the vocabulary and grammatical patterns they learn. They read familiar material and write short, guided compositions on topics within their vocabulary and grammatical control. They expand their knowledge of the customs and culture of the French speaking countries to include social patterns, activities, and roles.

French III (25130)
Full year, one credit
Grades 9-12

Prerequisite: Successful completion of French II or equivalent proficiency as determined by the teacher

Students continue to develop their proficiency in the target language in all four skills: listening, speaking, reading, and writing. They understand short conversations and can be understood by natives accustomed to dealing with foreigners. Emphasis is on consistent use of the language for classroom activities. Students recount uncomplicated events and experiences orally, read short authentic material for main idea, and write about familiar topics using more complex grammatical structures. A deeper insight into the target culture is developed.

French IV (25140)
Full year, one credit
Grades 9-12

Prerequisite: Successful completion of French III or equivalent proficiency as determined by the teacher

Level IV students focus on increased accuracy and appropriateness of speech in formal presentations and spontaneous conversations when narrating, describing, seeking and giving information. Students read authentic material, particularly on familiar subjects, and discuss contemporary subjects. They also write about these topics in some detail. A broader knowledge of cultural contributions in the arts, historical and current events in the francophone culture is developed.

French V, (25150)
Full year, one credit
Grades 9-12

Prerequisite: Successful completion of French IV or equivalent proficiency as determined by the teacher

Students are able to discuss current events and to understand authentic material (from media, literary excerpts by native speakers, etc.). They read, write, and converse with some depth about selected topics on the culture, history, and literature of the target language and begin to extend comprehension beyond the literal level. The course also includes some analysis of literature in the target language.

Advanced Studies in French (25160)
Full year, one credit

Prerequisite: Grade of "B" or better in the preceding level or teacher recommendation

Grades 9-12

This course is designed for students who demonstrate a high level of fluency in the target language. The focus of the curriculum is on developing strong conversational and communicative skills by discussing contemporary topics that provide the background through which students engage in inquiry and rich discussions. Students will be able to understand authentic material from the Francophone world utilizing various media sources. They will read, write, and engage in conversations about selected topics on the literature, cinema, history, and popular culture of the cultures in which the target language is spoken.

French Language and Culture, AP (35165)
Full year, one credit + 1.0 quality point
Grades 9-12

Prerequisite: Grade of "B" or better in the preceding level or teacher recommendation

This course is designed for students who demonstrate a high level of fluency and can understand material on concrete and abstract topics. This course prepares students for the Advanced Placement examination in French. Students will demonstrate their abilities in all language skills (listening, speaking, reading, and writing) in various ways, such as writing coherent summaries, descriptions, narrations, and essays. They will comprehend, analyze, and discuss a variety of spoken and written texts, representing literary works, contemporary life and popular culture. Students will continue to refine syntax and mechanics of French both orally and in writing, demonstrating a more advanced control of language and also a deeper understanding and use of idiomatic expressions. *Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point. (25165).*

One or more levels of German may be delivered through distance learning technologies. In some locations, German may only be available via distance learning.

German I (25210)
Full year, one credit
Grades 9-12

Prerequisite: None

Students learn sounds, stress patterns, and intonation of the language. Basic structures and vocabulary are learned through practice in listening, speaking, reading, and writing with emphasis on using language to communicate orally. Students express themselves both orally and in writing by recombining vocabulary and language structures creatively. Students comprehend and read simple questions and statements about daily activities and interests. Students also learn basic information about the geography, customs, and culture of the German speaking countries.

German II (25220)
Full year, one credit
Grades 9-12

Prerequisite: Successful completion of German I or equivalent proficiency as determined by the teacher

Students continue to develop their skills listening, speaking, reading, and writing with an emphasis on oral communication. They participate in simple conversations about familiar topics using the vocabulary and grammatical patterns they learn. They read familiar material and write short, guided compositions on topics within their vocabulary and grammatical control. They expand their knowledge of the customs and culture of the German speaking countries.

German III (25230)
Full year, one credit
Grades 9-12

Prerequisite: Successful completion of German II or equivalent proficiency as determined by the teacher

Students continue to develop their proficiency in the language in all four skills: listening, speaking, reading and writing. They understand short conversations and can be understood by native speakers accustomed to dealing with non-native speakers of German. Emphasis is on consistent use of the language for classroom activities. Students recount uncomplicated events and experiences orally, read short authentic material for main idea, and write about familiar topics using more complex grammatical structures. Cultural information is expanded.

German IV (25240)**Full year, one credit****Grades 9-12***Prerequisite: Grade of "C" or better in the preceding level or teacher recommendation*

Students continue to develop their proficiency in the language focusing on increased accuracy and appropriateness of speech in formal presentations and spontaneous conversations. They read authentic material and discuss contemporary subjects. They also write about these topics in some detail. A broader knowledge of the practices and perspectives of the German culture is developed.

German Language and Culture, AP (35235)**Full year, one credit + 1.0 quality point****Grades 9-12***Prerequisite: Grade of "B" or better in the preceding level or teacher recommendation*

This course is designed for students who demonstrate a high level of fluency and can understand material on concrete and abstract topics. This course prepares students for the Advanced Placement examination in German. Students will demonstrate their abilities in all language skills (listening, speaking, reading, and writing) in various ways, such as writing coherent summaries, descriptions, narrations and essays. They will comprehend, analyze, and discuss a variety of spoken and written texts, representing literary works, contemporary life and popular culture. Students will continue to refine syntax and mechanics of German both orally and in writing, demonstrating a more advanced control of language and also a deeper understanding and use idiomatic expressions. *Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point (25235).*

One or more levels of Japanese may be delivered through distance learning technologies. In some locations, Japanese may only be available via distance learning.

Japanese I (25910)**Full Year, one credit****Grades 9-12***Prerequisite: None*

Students begin to acquire skills in understanding and speaking the Japanese language. Basic grammar and vocabulary used in daily living, practical conversations, and discussions of Japanese culture are studied. Hiragana, the Japanese syllabary writing system, and Katakana, the Japanese syllabary for foreign words are taught. A limited number of Kanji, Chinese characters, are also introduced. Through the language, students study history, geography, culture and customs of Japan.

Japanese II (25920)**Full Year, one credit****Grades 9-12***Prerequisite: Successful completion of Japanese I or equivalent proficiency as determined by the teacher*

Students continue to increase their skills in understanding, speaking, reading and writing Japanese. About 100 kanji characters are taught. Students are introduced to additional vocabulary and grammar in order to engage in more complex conversations. History, geography, culture and customs of Japan are emphasized.

Japanese III (25930)**Full Year, one credit****Grades 9-12***Prerequisite: Successful completion of Japanese II or equivalent proficiency as determined by the teacher*

Japanese III is designed to further enhance students' speaking, reading, and writing skills. The course will teach new skills through the study of topics related to contemporary life in Japan. About 100 new kanji characters will be introduced. Students will be able to discuss and express opinions and feelings in various speech styles by the end of the course.

One or more levels of Latin may be delivered through distance learning technologies. In some locations, Latin may only be available via distance learning.

Latin I (25310)**Full year, one credit****Grades 9-12***Prerequisite: None*

In this first Latin course, students are introduced to the language and life of the ancient Romans. A basic Latin vocabulary and the primary elements of grammar are learned, and students learn to read aloud with expression and enjoyment. Roman culture is introduced, especially family life, and Greek and Roman mythology. A special emphasis is placed on English word formation and vocabulary building from Latin roots.

Latin II (25320)**Full year, one credit****Grades 9-12***Prerequisite: Successful completion of Latin I or equivalent proficiency as determined by the teacher*

This course continues the program set forth in Latin I. The Latin readings become gradually longer and more complex as students work into the reading of real Latin texts. Roman culture, history, and mythology are studied in depth to round out students' knowledge of the Classical World. Grammatical principles are reviewed and consolidated as students are introduced to Latin prose and poetry.

Latin III (25330)**Full year, one credit****Grades 9-12***Prerequisite: Successful completion of Latin II or equivalent proficiency as determined by the teacher*

Students complete the study of Latin grammar and enlarge their vocabularies, exhibiting increased knowledge of derivatives. They can identify and interpret syntax common to each author read. They continue to read Latin aloud and interpret selected passages through critical analysis, responding to the work as an art form.

Latin IV (25340)**Full year, one credit****Grades 9-12***Prerequisite: Grade of "C" or better in the preceding level or teacher recommendation*

Students review grammar in context, read, and continue to enlarge their vocabularies and knowledge of derivatives. They identify and interpret the syntax of each author with increased facility, and practice the skill of critical analysis. Students synthesize the cultural and historical contexts of the work read.

Latin V (25350)**Full year, one credit**

(This course may be combined with Latin, AP.)

Grades 9-12*Prerequisite: Grade of B or better in the preceding course or teacher recommendation*

Students review grammar in the context of the work, read, and continue to enlarge their vocabularies and knowledge of derivatives. They identify and interpret the syntax of each author with increased facility, and practice the skill of critical analysis. Students synthesize the cultural and historical contexts of the work read.

Latin, AP (35350)**Full year, one credit + 1.0 quality point**

(This course may be combined with Latin V.)

Grades 9-12*Prerequisite: Grade of B or better in the preceding course or teacher recommendation*

This course is designed for students who are fully conversant with Latin grammar and syntax and are able to analyze original texts, both literally and figuratively, preparing them for the Advanced Placement examination in Latin. The curriculum exposes students to some of the finest examples of Latin literature, comprising of both poetry and prose. Examining both Vergil's poetry and Caesar's prose, students will study the literature and civilization of those authors in great depth and will demonstrate their proficiency through analytic essays that show a firm grasp of the nuances of those authors' respective

literary genres with a particular focus on critical reading and analytical writing. In addition, the course approaches the study of classical literature through various cultural contexts, allowing students to draw connections between the ancient texts they read and a variety of other disciplines, as well as their own personal life experiences. *Students are required to take the AP exam associated with this course. Students not taking the exam will not receive the quality point (25350).*

Advanced Studies in Latin (25360)**Full year, one credit****Grades 9-12***Prerequisite: Grade of B or better in previous course or teacher recommendation*

This course, recommended as a post AP experience, is designed for students who are fully conversant with Latin grammar and syntax and are able to analyze original texts, both literally and figuratively. Students review grammar in the context of the works they read in class, and continue to enlarge their vocabularies and knowledge of derivatives. Students identify and interpret the syntax of each author read in class with increased facility, and practice critical analysis skills. Students synthesize the cultural and historical contexts of the works they read.

Spanish I (25510)**Full year, one credit****Grades 9-12***Prerequisite: None*

Students learn sounds, stress patterns, and intonation of the language. Basic structures and vocabulary are learned through practice in listening, speaking, reading, and writing with emphasis on using language to communicate orally at the novice level. Students express themselves both orally and in writing by recombining vocabulary and language structures creatively. Students comprehend and read simple questions and statements about daily activities and interests. Students also learn about the geography, customs, and culture of the Spanish speaking countries.

Spanish for Fluent Speakers I (25517)**Full year, one credit****Grades 9-12***Prerequisite: Demonstrated oral fluency in Spanish as determined by the teacher*

This course is designed for students who have oral fluency in Spanish but have not mastered basic reading and writing skills. Students develop communication skills in reading, writing, and speaking and begin the study of Spanish grammar. Students develop a deeper understanding of perspectives and practices of the Hispanic culture.

Spanish II (25520)
Full year, one credit
Grades 9-12

Prerequisite: Successful completion of Spanish I or equivalent proficiency as determined by the teacher

Students continue to develop their skills in listening, speaking, reading, and writing with an emphasis on oral communication at the novice level. They participate in simple conversations about familiar topics using the vocabulary and grammatical patterns they learn. They read familiar material and write short, guided compositions on topics within their vocabulary and grammatical control. They expand their knowledge of cultural perspectives and practices.

Spanish for Fluent Speakers II (25527)
Full year, one credit
Grades 9-12

Prerequisite: Successful completion of Spanish for Fluent Speakers Level I or equivalent proficiency in the language

This course is designed for students who already know how to read and write in Spanish at a basic level. Students improve spelling and mechanics and write short compositions. They read original works and begin to interpret and/or analyze narratives and poetry. The study of grammar is continued. Students improve their oral communication skills through class presentations and other interpersonal activities. Cultural perspectives and practices are explored and a deeper understanding is developed through the context of literature.

Spanish III (25530)
Full year, one credit
Grades 9-12

Prerequisite: Successful completion of Spanish II or equivalent proficiency as determined by the teacher

Students continue to develop their proficiency in the language in all four skills: listening, speaking, reading, and writing. They understand short conversations and can be understood by native speakers accustomed to dealing with non-native speakers of Spanish. Emphasis is on consistent use of the language for classroom activities. Students recount uncomplicated events and experiences orally, read short authentic material for main idea, and write about familiar topics using more complex grammatical structures. Knowledge of cultural perspectives and practices is expanded.

Spanish for Fluent Speakers III (25537)
Full year, one credit
Grades 9-12

Prerequisite: Successful completion of Spanish for Fluent Speakers Level II or equivalent proficiency as determined by the teacher

This course is designed for students who know how to read and write at a more advanced level. Students will

be able to write letters, compositions, and reports, and interpret and/or analyze more complex and longer narratives. In addition, students will present oral and written reports on a variety of topics. Cultural perspectives and practices are shared and a deeper understanding is developed through the context of literature.

Spanish IV (25540)
Full year, one credit
Grades 9-12

Prerequisite: Successful completion of Spanish III or equivalent proficiency as determined by the teacher

Level IV students focus on increased accuracy and appropriateness of speech in formal presentations and spontaneous conversations when narrating, describing, seeking and giving information. Students read authentic material, particularly on familiar subjects, and discuss contemporary subjects within a cultural context. They also write about these topics in more detail. A deeper understanding of cultural perspectives and practices is developed through literature and authentic materials.

Spanish V, (25550)
Full year, one credit
Grades 9-12

Prerequisite: Successful completion of Spanish IV or equivalent proficiency as determined by the teacher

Students are able to discuss current events and to understand authentic material (from media, literature excerpts from native speakers, etc.). They read, write, and converse with some depth about selected topics on the culture, history, and literature of the language, and begin to extend comprehension beyond the literal level. The course also includes some analysis of literature in the target language.

Advanced Studies in Spanish (25560)
Full year, one credit

Prerequisite: Grade of "B" or better in the preceding level or teacher recommendation

Grades 9-12

This course is designed for students who demonstrate a high level of fluency in the target language. The focus of the curriculum is on developing strong conversational and communicative skills by discussing contemporary topics that provide the background through which students engage in inquiry and rich discussions. Students will be able to understand authentic material representing the richness of the Spanish speaking countries utilizing various media sources. They will read, write, and engage in conversations about selected topics on the literature, cinema, history, and popular culture of the target language.

Spanish Language and Culture, AP (35565)**Full year, one credit + 1.0 quality point****Grades 9-12**

Prerequisite: Grade of "B" or better in the preceding level or teacher recommendation

This course is designed for students who demonstrate a high level of fluency and can understand material on concrete and abstract topics. This course prepares students for the Advanced Placement examination in Spanish Language. Students will demonstrate their abilities in all language skills (listening, speaking, reading, and writing) in various ways, such as writing coherent summaries, descriptions, narrations, and essays. They will comprehend, analyze, and discuss a variety of spoken and written texts, representing literary works, contemporary life, and popular culture. Students will continue to refine syntax and mechanics of Spanish both orally and in writing, demonstrating a more advanced control of language and also a deeper understanding and use of idiomatic expressions. *Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point (25555).*

Spanish Literature, AP (35580)**Full year, one credit + 1.0 quality point****Grades 9-12**

Prerequisite: Grade of "B" or better in the preceding level or teacher recommendation

This course is designed for students who demonstrate a high level of fluency and can understand material on concrete and abstract topics, including literary texts representing various genres and literary styles. This course prepares students for the Advanced Placement examination in Spanish Literature, AP. The curriculum exposes students to a wide range of literature from across Spanish speaking countries. Students will study literature and civilization in greater depth and will demonstrate proficiency in Spanish across all language skills, with a particular focus on a critical reading and analytical writing. In addition, this course approaches the study of literature through various cultural contexts, allowing students to understand the literary texts they read while at the same time relating this content to many other areas of learning and connecting it to their own life. *Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point. (25580)*

World Languages Sequences of Study¹

American Sign Language

7 th grade	8 th grade	9 th grade	10 th grade	11 th grade	12 th grade
	Level 1	Level 2	Level 3		
		Level 1	Level 2	Level 3	
			Level 1	Level 2	Level 3
				Level 1	Level 2

Arabic

7 th grade	8 th grade	9 th grade	10 th grade	11 th grade	12 th grade
Level 1	Level 2	Level 3	Level 4	Level 5	
	Level 1	Level 2	Level 3	Level 4	Level 5
		Level 1	Level 2	Level 3	Level 4

Chinese

7 th grade	8 th grade	9 th grade	10 th grade	11 th grade	12 th grade
Level 1	Level 2	Level 3	Level 4	Chinese Language and Culture, AP	
	Level 1	Level 2	Level 3	Level 4	Chinese Language and Culture, AP
		Level 1	Level 2	Level 3	Level 4

French

7 th grade	8 th grade	9 th grade	10 th grade	11 th grade	12 th grade
Level 1	Level 2	Level 3	Level 4	Level 5 or French Language and Culture, AP	French Language and Culture, AP or Advanced Studies in French
	Level 1	Level 2	Level 3	Level 4	Level 5 or French Language and Culture, AP
		Level 1	Level 2	Level 3	Level 4

German

7 th grade	8 th grade	9 th grade	10 th grade	11 th grade	12 th grade
		Level 1	Level 2	Level 3	Level 4 or German Language and Culture, AP
	Level 1 <i>*Available at H-B Woodlawn only</i>	Level 2	Level 3	Level 4, or German Language and Culture, AP	German Language and Culture, AP

¹ This sequence is for regular programs. For a complete description of the International Baccalaureate language offerings, please see pages 116-118

Japanese

7 th grade	8 th grade	9 th grade	10 th grade	11 th grade	12 th grade
		Level 1	Level 2	Level 3	
	Level 1 <i>*Available at H-B Woodlawn only</i>	Level 2	Level 3		

Latin

7 th grade	8 th grade	9 th grade	10 th grade	11 th grade	12 th grade
Level 1	Level 2	Level 3	Level 4	Level 5 or Latin, AP	Latin, AP or Advanced Studies in Latin
	Level 1	Level 2	Level 3	Level 4	Level 5 or Latin, AP
		Level 1	Level 2	Level 3	Level 4

Spanish

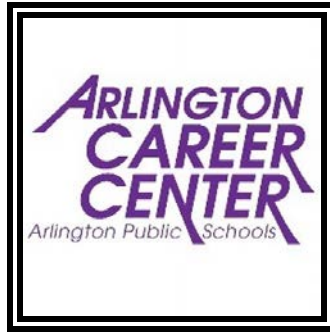
7 th grade	8 th grade	9 th grade	10 th grade	11 th grade	12 th grade
Level 1	Level 2	Level 3	Level 4	Level 5 or Spanish Language and Culture, AP	Spanish Language and Culture, AP or Spanish Literature, AP or Advanced Studies in Spanish
	Level 1	Level 2	Level 3	Level 4	Level 5 or Spanish Language and Culture, AP
		Level 1	Level 2	Level 3	Level 4

Spanish for Fluent Speakers

7 th grade	8 th grade	9 th grade	10 th grade	11 th grade	12 th grade
Level 1	Level 2	Level 3	Spanish Language and Culture, AP	Spanish Literature, AP	Advanced Studies in Spanish
	Level 1	Level 2	Level 3	Spanish Language and Culture, AP	Spanish Literature, AP or Advanced Studies in Spanish
		Level 1	Level 2	Level 3	Spanish Language and Culture, AP

Notes:

1. Some or all courses in Arabic, Chinese, German, and Japanese may be delivered via Distance Learning or as hybrid courses (combining online and face-to-face instruction).
2. An AP exam is not available in Arabic.
3. An AP course is not offered in Japanese.
4. APS students who demonstrate strong proficiency in one or more foreign languages may earn up to 4 credits (Level 1-4) by participating successfully in the Credit by Exam. Please see www.apsva.us/worldlanguages for more information.



ARLINGTON CAREER CENTER

2017-2018

The Arlington Career Center serves all high school students in Arlington Public Schools by offering academic programs, Career and Technical Education (CTE) programs, and now dual-enrolled college courses through the Governor's Career & Technical Academy. The mission of the Career Center is to instill a passion for learning by doing. In addition, the Career Center provides enhanced opportunities in four areas: 1) Project based curriculum; 2) industry certifications; 3) college credit; and, 4) career experiences such as internships and client projects.

The Governor's Career and Technical Academy builds programs around "Relationships, Relevance and Rigor," with opportunities for high level, integrated projects and dual enrollment opportunities with Northern Virginia Community College (NOVA). Students have opportunities to take courses in Business and communications, Industry and Engineering, Health and Human Services, and Education and Government pathways. Any student who enrolls in a dual-enrolled CTE course at the Arlington Career Center is part of the Academy. They also may take NOVA's one-credit orientation course (SDV100) on the Career Center campus. For more information about the Arlington Career Center and its programs, please call 703-228-5800.

Program Offerings

SEQUENCE OPTIONS OF THE CAREER AND TECHNICAL EDUCATION COURSES AT THE ARLINGTON CAREER CENTER

CAREER AND TECHNICAL COURSES AT THE ARLINGTON CAREER CENTER

ADDITIONAL COURSES OFFERED AT THE ARLINGTON CAREER CENTER

INTERNSHIP OPTIONS

ARLINGTON TECH

THE ACADEMIC ACADEMY

HILT INSTITUTE

PROGRAM FOR EMPLOYMENT PREPAREDNESS (PEP)

Sequence Options of the Career and Technical Education Courses at the Arlington Career Center

Graduation requirements for the Standard Diploma require a least two sequential electives. In CTE this requirement may be fulfilled using one of the options listed below. In some cases, the option is a two credit, two period course for which a student earns the sequence. Please see your counselor for more details.

I. Business and Communication				
Arts, A/V Technology and Communications	<u>Sequence Option 1:</u> Photo and Video I (28625) and Photo and Video II (28626)	<u>Sequence Option 2:</u> Digital Animation (28457) and Graphic Communication System (28458)	<u>Sequence Option 3:</u> Television Production I (28689) and Television & Multimedia Production II (28690) DE Television & Multimedia Production III (28691)	
Business Management & Administration	<u>Sequence Option 1:</u> Advanced Topics in Business Administration (28170) Advanced Topics in Business Management (28171)			
Information Technology: Cybersecurity/Networking	<u>Sequence Option 1:</u> Introduction to Information Technology (26116) and Computer Information Systems (26614) and (96614W) DE	<u>Sequence Option 2:</u> Advanced Topics in Computer Information Systems (26649) (96649W) DE Advanced Topics in Information Technology, (26648) (96648W) DE	<u>Sequence Option 3:</u> Cybersecurity Level I: Cybersecurity I: Networks (26653) (96653W) DE Cybersecurity I: Operating Systems (26654) (96654W) DE Cybersecurity I: Systems Administration (26655) (96654W) DE Cybersecurity I: Telecommunications & Routing Protocols (26656) (96656W) DE <i>(all above courses taken concurrently)</i>	<u>Sequence Option 4:</u> Cybersecurity Level II: Cybersecurity II: Networks Operations (26657) (96657W) DE Cybersecurity II: Network Operations Advanced (26658) (96658W) DE <i>(all above courses taken concurrently)</i>
Information Technology: Computer Programming/ Advanced Topics	<u>Sequence Option 1:</u> Computer Programming (26638) (96638W) DE Computer Programming Advanced (26643) (96643W) DE	<u>Sequence Option 2:</u> Advanced Topics in Computer Information Systems (26649) (96649W) DE Advanced Topics in Information Technology (26648) (96648W) DE		
II. Industry and Engineering				
Transportation, Distribution, and Logistics	<u>Sequence Option 1:</u> Automotive Technology I (28509) DE and Automotive Technology II (28507) DE **	<u>Sequence Option 2:</u> Automotive Collision Repair I (28677) and Automotive Collision Repair II (28678)		
Architecture and Construction	<u>Sequence Option 1:</u> Construction Technology (28512) and Computer Assisted Architectural Drawing (28408) DE	<u>Sequence Option 2:</u> Construction Technology (28512) and Sustainable and Renewable Technologies (28460)	<u>Sequence Option 3:</u> Electricity I (28534) and Electricity II (28535) DE	<u>Sequence Option 4:</u> Energy and Power (28536) Sustainable and Renewable Technologies (28460)

II. Industry and Engineering (continued)				
Science, Technology, Engineering and Mathematics	<u>Sequence Option 1:</u> Computer Assisted Architectural Drawing (28408) DE and Comp-Assisted Technical Drawing (28439) DE	<u>Sequence Option 2:</u> Engineering I: Intro to Engineering Design (28491) and Engineering II: Principals of Engineering (28492)	<u>Sequence Option 3:</u> Computer Assisted Technical Drawing (28439) DE and Computer Assisted Engineering Drawing (28438)	
III. Health and Human Services				
Agriculture, Food and Natural Resources	<u>Sequence Option 1:</u> Technical Animal Science I/Small Animal Care (28064) and Technical Animal Science II/Veterinary Science (28061)	<u>Sequence Option 2:</u> Advanced Animal Science I/ Veterinary Assistant I (28062) and Advanced Animal Science II/Veterinary Assistant II (28063)		
Health Sciences	<u>Sequence Option 1:</u> Health Sciences (28303) DE and Medical Terminology (28383) DE**	<u>Sequence Option 2:</u> Health Sciences (28303) Pharmacy Technician (28305)	<u>Sequence Option 3:</u> Health Sciences (28303) Physical Therapy/Sports Medicine (28332)	
Hospitality and Tourism	<u>Sequence Option 1:</u> Culinary Arts & Sciences I (28522) and Culinary Arts and Sciences II (28523)			
Human Services	<u>Sequence Option 1:</u> Early Childhood Education I (28235) and Early Childhood Education II (28236) DE	<u>Sequence Option 2:</u> Cosmetology I (28528) Cosmetology II (28529) and Cosmetology III (28530)	<u>Sequence Option 3:</u> Barbering I (28531) Barbering II (28532) Barbering III (28526)	
IV. Education and Government				
Government and Public Administration	<u>Sequence Option 1:</u> Air Force Junior ROTC I (28741) and Air Force Junior ROTC II (28742)	<u>Sequence Option 2:</u> Air Force Junior ROTC III (28743) and Air Force Junior ROTC IV (28744)	<u>Sequence Option 3:</u> Air Force Junior ROTC V (28745) Air Force Junior ROTC VI (28746)	
Law, Public Safety, Corrections and Security	<u>Sequence Option 1:</u> Forensic Technology with application in Biotechnology (28325) and Biotechnology Techniques and Applications (28467) s			

S – Course provides science credit.

DE – Course is also available for qualified students to earn dual-enrolled credit. Please see course description or more information.

**Additional levels of some sequences are available.

- All courses fulfill the Career and Technical/Fine Arts requirement for high school graduation.
- Students may earn a selected verified credit upon completion of a CTE sequence and successfully passing a state approved industry certification for that sequence.
- Each CTE course provides an opportunity for industry certification for students entering high school in 2013-2014 and beyond to fulfill the career and technical certification required for the Standard Diploma graduation requirement.

CAREER AND TECHNICAL COURSES AT THE ARLINGTON CAREER CENTER

All courses qualify for the Career and Technical/Fine Arts credit.

Each Career and Technical course offers the opportunity to earn the career and technical credential required for the Standard Diploma graduation requirement. Please see your counselor for more information.

Advanced Topics in Business Administration (28170)

Full year, one credit
Grades 10-12

Prerequisite: Concurrent enrollment with Advanced Topics in Business Management

Students enhance word processing and communication skills as they develop competencies needed by administrative support professionals. Students study office procedures as information processing, telecommunications, electronic record management, and financial records management. Students prepare for the Microsoft Office Specialist Certification.

- **Work Experience:** Work experience is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. Additional credits can be earned with the completion of work experience: 1 credit for 396 hours, 2 credits for 792 hours.
- **College Credit:** Selected course topics may be dual-enrolled at Northern Virginia Community College (NOVA) towards an Associate's Degree in the fields of business and information technology, pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of the course is taught at the college level. Please consult with your counselor for more details.
- **Certification:** Students will receive a certificate of completion after finishing the course. Students earn additional certifications by passing a course related industry certification.

Advanced Topics in Business Management (28171)

Full year, one credit
Grades 10-12

Prerequisite: Concurrent enrollment with Advanced Topics in Business Administration

Students study basic management concepts and leadership styles as they explore business ownership, planning, operations, marketing, finance, economics, communications, the global marketplace, and human relations. Quality concepts, project management, problem solving, and ethical decision making are an integral part of the course. Student leadership skills may be enhanced by participation in school-based or virtual enterprises, job shadowing, internships, cooperative education, and/or the Future Business Leaders of America (FBLA).

- **Work Experience:** Work experience is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. Additional credits can be earned with the completion of work experience: 1 credit for 396 hours, 2 credits for 792 hours.
- **College Credit:** Selected course topics may be dual-enrolled at Northern Virginia Community College (NOVA) towards an Associate's Degree in the fields of business and information technology, pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of the course is taught at the college level. Please consult with your counselor for more details.
- **Certification:** Students will receive a certificate of completion after finishing the course. Students earn additional certifications by passing a course related industry certification.

Advanced Topics in Information Technology (26648) (96648W)

Full Year, one credit + 1.0 quality point
Grades 10-12

Prerequisite(s): Introduction to IT or permission of instructor, and concurrent enrollment with Advanced Topics in Computer Information Systems (26649)

Advanced topics in information technology provides students choice in developing expertise among specific information technology career pathways. These include such areas as computer programming, network administration, database management and administration, digital multimedia, web page design,

graphic design, game design and programming, technical support or system options. The requirements for the course can be satisfied through individual or team projects, mentorship, or independent study. Students can prepare multiple IT industry certifications. This course integrates science, technology, engineering, and mathematics principles and concepts and is a career pathway course in Information Technology.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA). Course equivalency and credits awarded are dependent upon topic studied with NOVA courses used towards an Associate's Degree in Information Technology. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*

Advanced Topics in Computer Information Systems (26649) (96649W)

**Full Year, one credit + 1.0 quality point
Grades 10-12**

Prerequisite(s): Introduction to IT, Computer Information Systems, or permission of instructor, and concurrently enrolled in Advanced Topics in Information Technology

Students apply problem-solving skills to real-life situations through advanced integrated software applications, including printed, electronic, and Web publications. Students work individually and in groups to explore advanced computer maintenance activities, Web site development, programming, networking, emerging technology, and employability skills.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA). Course equivalency and credits awarded are dependent upon topic studied with NOVA courses used towards an Associate's Degree in Information Technology. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*

Air Force Junior ROTC I (28741)

**Full year, one credit
Grades 9-12**

Prerequisite: *Students must be least 14 years of age and concurrently enrolled in AFJROTC II*

The focus of AFJROTC is to develop citizens of character dedicated to serving their nation and community. This is accomplished through development of self-discipline, respect, customs & courtesies, character, integrity, service and leadership.

Enrollment in AFROTC does not obligate a student to military service.

AFJROTC courses include Aviation History, Leadership, Global Studies, Space Exploration, Cadet Health and Wellness, and Management of the Cadet Corps. As a I and II level cadet, students will learn about dynamic followership, teamwork and professionalism and will be assigned to positions in the cadet squadron.

Air Force Junior ROTC II (28742)

Full year, one credit

Grades 9-12

Prerequisite(s): Students must be least 14 years of age, comply with USAF grooming and concurrently enrolled in AFJROTC I

The focus of AFJROTC is to develop citizens of character dedicated to serving their nation and community. This is accomplished through the development of self-discipline, respect, customs & courtesies, character, integrity, service and leadership. Enrollment in AFROTC does not obligate a student to military service.

AFJROTC courses include Aviation History, Leadership, Global Studies, Space Exploration, Cadet Health and Wellness, and Management of the Cadet Corps. As a I and II level cadet, students will learn about dynamic followership, teamwork and professionalism and will be assigned to positions in the cadet squadron.

Air Force Junior ROTC III (28743)

Full year, one credit

Grades 10-12

Prerequisite(s): Completion of AFJROTC I & II, compliance with USAF grooming standards and concurrently enrolled in AFJROTC IV

The focus of AFJROTC is to develop citizens of character dedicated to serving their nation and community. This is accomplished through development of self-discipline, respect, customs & courtesies, character, service, integrity, service and leadership. Enrollment in AFJROTC does not obligate a student to military service.

AFJROTC classes include Aviation History, Leadership, Global Studies, Space Exploration, Cadet Health and Wellness, Management of the Cadet Corps. As a III and IV level cadet, students will learn about leadership and be assigned leadership positions in the cadet squadron.

Air Force Junior ROTC IV (28744)

Full year, one credit

Grades 10-12

Prerequisite(s): Completion of AFJROTC I & II, compliance with USAF grooming standards, and concurrently enrolled in AFJROTC III

The focus of AFJROTC is to develop citizens of character dedicated to serving their nation and

community. This is accomplished through development of self-discipline, respect, customs & courtesies, character, service, integrity, service and leadership. Enrollment in AFJROTC does not obligate a student to military service.

AFJROTC courses include Aviation History, Leadership, Global Studies, Space Exploration, Cadet Health and wellness, Management of Cadet Corps. As a III and IV level cadet, students will learn about leadership and be assigned leadership positions in the cadet squadron.

Air Force Junior ROTC V (28745)

Full year, one credit

Grades 11-12

Prerequisite(s): Completion of AFJROTC III & IV, compliance with USAF grooming standards, and concurrently enrolled in AFJROTC VI

The focus of AFJROTC is to develop citizens of character dedicated to serving their nation and community. This is accomplished through development of self-discipline, respect, customs & courtesies, character, integrity, service and leadership. Enrollment in AFJROTC does not obligate a student to military service.

AFJROTC courses for level V and VI cadets include more in-depth Leadership and Management of the Cadet Corps courses, along with practical application. As a V/VI level cadet, students will work closely with the instructors to build upon their leadership and management skills.

Air Force Junior ROTC VI (28746)

Full year, one credit

Grades 11-12

Prerequisite(s): Completion of AFJROTC III & IV, compliance with USAF grooming standards, and concurrent enrollment with AFJROTC V

The focus of AFJROTC is to develop citizens of character dedicated to serving their nation and community. This is accomplished through development of self-discipline, respect, customs & courtesies, character, integrity, service and leadership. Enrollment in AFJROTC does not obligate a student to military service.

AFJROTC courses for level V and VI cadets include more in-depth Leadership and Management of the Cadet Corps courses, along with practical application. As a V/VI level cadet, students will work closely with the instructors to build upon their leadership and management skills.

Automotive Collision Repair I (28677)

Full year, two periods, two credits

Grades 10-12

Prerequisite(s): None

In the global automotive repair industry, there is a growing demand for qualified auto body technicians. In this course, students are taught non-structural

analysis, damage repair, and welding. Students work with a variety of materials, using metal finishing and body filling techniques to prepare surfaces and repair panels. In addition, students practice shop safety and gain career skills.

Automotive Collision Repair II (28678)

Full year, two periods, two credits

Grades 10-12

Prerequisite(s): Automotive Collision Repair I.

This program is designed to prepare students for employment in the auto body field. There are two areas of specialization: auto painting and collision work. Although students obtain experience in both, it is possible to specialize in one particular area. The majority of time is spent in practical "hands-on" experience.

- **Certification:** Upon successful completion of level II, students can take the Automotive Service Excellence (ASE)/Skills USA Automotive Technicians test for paint and refinishing.

Automotive Technology I (28509) (98509W)

Full year, two periods, two credits + 1.0 quality point

Grades 9-12

Prerequisite(s): None

Automotive Technology I is the beginning courses in the Advanced Automotive Technology program sequence at the Career Center. It may also be taken as a general interest course. Students are introduced to career opportunities in the automotive field and how the Automotive Youth Education System (AYES) can help them find employment in an automotive career path. Students will develop competencies in many of the ASE certified areas of automotive technology including brakes and engine repair. Students also will learn how to work with tools and perform vehicle maintenance. The majority of this course is hands-on, and allows students to work on cars, including their own.

- **College Credit:** This course may be dual-enrolled at Northern Virginia Community College (NOVA) as AUTO100 for a total of 2 credits at NOVA towards an Automotive Technology Associate of Applied Science Degree pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.

Automotive Technology II (28507) (98507W)
Full year, two periods, two credits + 1.0 quality point
Grades 10-12

Prerequisite(s): Automotive Technology I

Automotive Technology II involves "real world training" in an on-the-job type facility. Training in the most up-to-date technologies enables a student to gain experience in this exciting and fast growing industry. Use of modern specialized equipment with emphasis on "hands-on" training makes this course beneficial to future technicians, as well as automobile owners. This course is a prerequisite for Automotive Technology III.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as AUTO265 for a total of 6 credits at NOVA towards an Automotive Technology Associate of Applied Science Degree pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*
- **Certification:** *ASE/AYES/SkillsUSA Automotive Technician End-of-Program Examinations*

Automotive Technology III (28508) (98508W)
Full year, two periods, two credits + 1.0 quality point
Grades 11-12

Prerequisite(s): Automotive Technology II

Automotive Technology III is the culmination of the three-year sequence in Advanced Automotive Technology. Students continue to build competencies in ASE-certified areas of automotive technology, including specialized areas such as computer controlled systems, fuel injection and front wheel alignment. Use of sophisticated testing devices and other modern equipment prepares students with job skills required for success in the automotive industry. In the spring semester, students can participate in the Career Center's nationally-recognized internship program, where students interview for paid internships at local automotive dealerships and independent service facilities. During the summer, most of these internships turn into full-time, paid positions.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as AUTO241 and AUTO266 for a total of 8 credits at NOVA towards an Automotive Technology*

Associate of Applied Science Degree pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.

- **Certification:** *ASE/AYES/SkillsUSA Automotive Technician End-of-Program Examinations*

Aviation Technology (28731)
Full year, two periods, two credits
Grades 9-12

Prerequisite(s): Students must be fifteen years old prior to completion of the course.

Aviation Technology provides an introduction to the world of aviation and the aerospace industry. It is designed for students who intend to pursue either pilot training or aviation related career fields. This is one of only four courses in the Commonwealth of Virginia in which students get to fly real airplanes. Course content includes careers in aviation and aerospace, aviation history, principles of flight, aircraft systems and performance, meteorology for pilots, interpreting weather data, basic navigation, electronic navigation, aviation physiology, flight planning and decision making. Students receive flight training in full motion and stationary flight simulators and participate in two actual aircraft flights at a local airport. The curriculum is enriched with field trips to the Smithsonian Air and Space Museum, Reagan National Airport and Lockheed Martin's Flight Demonstration Center.

Certification: *Students will take the Federal Aviation Administration (FAA) aeronautical knowledge written examination for a private pilot license.*

Barbering I (28531)
Full year, two credits, two periods
Grades 10-11

Prerequisite: None

Barbering is the study of hair, scalp, and skin. Student study and prepare in a clinical lab setting, using mannequins and live models for manipulative practice. The program emphasizes safety and sanitation, communication, and management skills. Related areas of study include psychology, ethics, and professional image. Competency completions prepare the student to work or apprentice in a local shop or beauty salon.

Barbering II (28532)**Full year, two credits, two periods****Grades 10-11***Prerequisite: Barbering I*

Students apply their knowledge of barbering skills in a clinical lab setting, using mannequins and live models for manipulative practice. The program emphasizes safety and sanitation, communication skills, and management of a barber shop or beauty salon. Related areas of study include psychology, ethics, and professional image. Competency completions prepare the students for the Virginia state licensing exam.

Barbering III (28526)**Full year, two credits, two periods****Grades 10-11***Prerequisite: Barbering I & II*

In this advanced course, students build on their theoretical foundation of general sciences and practices in barbering to increase proficiency in hair cutting and styling on live models, with attention to professionalism, client consultation, safety, and infection control. Students are trained in safe chemical processes related to chemical texture services and advanced hair coloring techniques. They also develop artistic skills with wigs and hair additions. An advanced business management unit focuses on managing the shop. Competency completion prepares the student for the Virginia State Licensing Exam. Students can combine classroom instruction and supervised on-the-job training in an approved position or internship with continuing supervision throughout the school year.

Biology II/Human Biology (28085) (98085W)**Full year, one credit + 1.0 quality point****Grades: 11-12***Prerequisite(s): Biology I*

This is an introductory course to human body structure and designed for students interested in the health and medical pathway. This course will examine body structure and function at the cellular, tissue, organ, and organ system levels with emphasis on normal anatomy and physiology throughout the course.

- **College credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as Bio141 for a total of 4 credits at NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*

Biotechnology Techniques and Applications**(28467)****Full year, two credits****Grades 10-12***Prerequisite(s): Biology I*

This course addresses the principles, techniques and applications of biotechnology. Students will examine biotechnology procedures and protocols while applying them to problems commonly addressed in the major biotech career paths of forensic science, agriculture, medicine, environmental science and genetic engineering. Specific techniques include sterile techniques, micropipetting, bacteria culturing, Polymerase Chain Reaction (PCR), DNA extraction, use of DNA vectors, and protein analysis. This course is recommended for students who like science.

- **Additional high school credit:** *A credit earned in this course will satisfy the third lab science credit for the standard diploma or the fourth lab science credit for the advanced diploma (Biology II-Genetics 24350). In addition to the science credit, students will receive a second credit for fine/practical arts. This also counts as a sequence for the modified standard diploma.*

Career Investigations (22010)**Full year, one credit****Grades 9-12***Prerequisite: None*

This course consists of an in-depth study of career clusters through a variety of investigative activities. Students observe, analyze, and report on the demand for workers, worker qualifications, organizational structures, quality control measures, selected policies and regulations, ethical issues, and rewards of work. Students analyze career assessment results, compare various educational options, and develop or revise a plan related to their academic and career-related goals.

Computer Assisted Architectural Drawing (28408)**(98408W)****Full year, one period, one credit + 1.0 quality point****Grades 10-12***Prerequisite(s): Concurrent Enrollment in Computer Assisted Technical Drawing*

This is a drawing course which focuses on the practices of the fields of architecture and construction through the use of mechanical drafting and computer assisted drawing. These documents include floor plans, electrical plans, wall sections, elevations, and renderings. Students build scale models and reports on various building materials and their individual properties. This class provides information helpful for the homeowner and is especially beneficial to the future architect, interior designer, or contractors, including students' involved in the construction trade

skill classes. Computer aided drafting using AutoCAD is a component of this course.

- **College Credit:** This course may be dual-enrolled at Northern Virginia Community College (NOVA) as CAD 165 or other course code for a total of 3 credits at NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.

Computer Assisted Engineering Drawing (28438) (98438W)

**Full year, one period, one credit + 1.0 quality point
Grades 9-12**

Prerequisite: Concurrent enrollment in Computer Assisted Technical Drawing

This is a drawing course which focuses on the practices of the fields of engineering and design. Students prepare working drawings necessary in the design and manufacturing of components and assemblies through the use of mechanical drafting and computer assisted drawing programs. These documents include isometric and orthographic drawings as well as models of the drawings. Students also study building materials and their individual properties. This class teaches essential programs for the future engineer and is especially beneficial for college bound STEM students. Computer aided drafting using AutoCAD is a critical part of this course.

- **College Credit:** This course may be dual-enrolled at Northern Virginia Community College (NOVA) as EGR 115 or CAD 140 or other course code for a total of 3 credits at NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.

Computer Assisted Technical Drawing (28439) (98439W)

**Full year, one period, one credit + 1.0 quality point
Grades 10-12**

Prerequisite(s): Concurrent Enrollment in Computer Assisted Architectural Drawing

This is a beginning level mechanical drawing class which introduces the skills required to communicate effectively through the use of graphic language. Students use three methods of graphic representation: freehand sketching, mechanical drafting, and computer-assisted drawing. The course content includes career opportunities in the field of technical drawing, freehand sketching, lettering techniques, line types, geometric constructions, multi-view drawings,

dimensioning, sectional views, auxiliary views, and computer assisted design. This course is especially recommended for future engineers, architects, or home builders, including students involved in the construction trades.

- **College Credit:** This course may be dual-enrolled at Northern Virginia Community College (NOVA) as EGR 115 or CAD 140 for a total of 3 credits at NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.

Computer Information Systems (26614) (96614W) Fully year, one credit + 1.0 quality point Grades 9-12

Prerequisite: Concurrent enrollment with Introduction to Information Technology

Students apply problem solving skills to real-life situations through word processing, spreadsheets, databases, multimedia presentations, and integrated software applications. Students work individually and in groups to explore computer concepts, operating systems, networks, telecommunications, and emerging technologies. Work experience is available for this course (optional). Students combine classroom instruction and supervised on-the-job training at an approved work site with continuing supervision throughout the school year. With this course student can meet the career and technical industry certification graduation and the online course graduation requirement.

- **College Credit:** This course may be dual-enrolled at Northern Virginia Community College (NOVA) as BUS226 for a total of 3 credits at NOVA pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.
- **Certification:** Student selected verified credit can be earned by passing the course-related industry certification.

Computer Programming (26638) (96638W) Full year, one credit + 1.0 quality point Grades 10-12

Prerequisite(s): Successful completion of Algebra I

Students learn to use the JAVA and Python programming language to code and compile programs in an open source or Windows environment. Course

content includes program design and problem solving, control structures, functions, parameter passing, data structures, arrays, and file processing. Emphasis is on program design.

- **College Credit:** This course may be dual-enrolled at Northern Virginia Community College (NOVA) as ITP120 for a total of 3 credits or CSC130 for 3 credits and CSC185 for 1 credit if the student has passed Precalculus at NOVA towards an Associate's Degree in Information Technology pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.

Computer Programming Advanced (26643) (96643W)

Full year, one credit + 1 quality point

Grades 10-12

Prerequisite: year 1 of Computer Science course DE and Calculus are required.

Advanced computer programming builds on the foundation of programming skills. Advanced Programming students use object-oriented programming concepts, I/O control structures, functions and/or methods, data abstractions, data structures to develop database applications, interactive multimedia applications including game applications, mobile applications, and Web applications. The course discusses computer network architecture and the function of computer hardware, including networks and operating systems, data organization, algorithms, and software engineering. Students continue to develop their employability skills as they research pathways for continuing education and careers in the information technology and computer sciences industries and engage in various career building activities.

- **College Credit:** This course may be dual-enrolled at Northern Virginia Community College (NOVA) as ITP120 for a total of 3 credits or CSC200 for 3 credits and CSC201 for 1 credit if the student has passed Precalculus at NOVA towards an Associate's Degree in Information Technology pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.

Construction Technology (28512)

Full year, one credit

Grades 9-12

Prerequisite: Prior enrollment in Carpentry I or concurrent enrollment in Sustainable and Renewable Technologies (28460)

In this course, students learn about structures and the related industries to investigate such jobs as architects, civil engineers, carpenters, electricians, plumbers, surveyors, contractors, masons, and construction and environmental management. Students develop and use carpentry skills to build model structures, plan site preparation, design structures and infrastructure projects, and utilize computer software and other appropriate tools used in such industries.

Cosmetology I (28528)

Full year, two credits

Grades 10-12

Prerequisite(s): None

Cosmetology I is designed for students interested in becoming licensed cosmetologists. Students learn the science and art of being a professional cosmetologist by investigating the past, analyzing the present and concluding with a total beauty result. Students gain knowledge in the foundations of professional ethics, bacteriology, anatomy/physiology, basic chemistry/electricity, properties of hair and scalp, principles of hair design, shampooing/conditioning, haircutting, hairstyling, facials, manicuring and pedicuring. Instruction is designed to prepare students to meet the qualifications for Cosmetology II (28529). Cosmetology kits are provided for student use, or they may purchase their own (approximate cost \$170).

- **Certifications:** Virginia State Board of Barbers and Cosmetology Examination (once students have completed both Cosmetology I & II).

Cosmetology II (28529)

Full year, two periods, two credits

Grades 10-12

Prerequisite(s): Cosmetology I.

Students build on Cosmetology I by learning through a scientific approach to the art of cosmetology. Students learn how to braid with extensions, make wigs, permanent waving, chemical hair relaxers, soft curl-perms, theory and application of color, skin care, hair removal, facial makeup, nail care, advanced nail techniques, and the business of cosmetology. As part of their training, students also will work in the lab on clients to gain real salon experience, attend beauty shows, and work with senior citizens at various local community centers. Cosmetology kits are provided for student use, or they may purchase their own (approximate cost \$170).

- **Certifications:** Virginia State Board of Barbers and Cosmetology Examination (once students have completed both Cosmetology I & II).

Cosmetology III (28530)

Full year, two periods, two credits

Grades 11-12

Prerequisite(s): Cosmetology II

Cosmetology III is an advanced level course designed for those students who have successfully completed Cosmetology II. Students will continue to learn through the scientific approach on how to become a Professional Cosmetologist. Students will begin a rigorous training in preparation for the Virginia State Board of Barbers and Cosmetology Exam thereby increasing their proficiency in all practical skills. Also, students manage the school salon while developing expertise in the business. Additionally, students will work in the industry as salon interns. Upon completion of the program, students will be qualified to take the Virginia State Board of Cosmetology Exam, work in the industry as shampoo assistant, stylist assistant, receptionist, sales representative, and/or state board investigator. Supplies for this course will be according to the needs of the students at their expense.

Culinary Arts & Sciences I (28522)

Full year, two periods, two credits

Grades 10-12

Prerequisite(s): Students must submit a chest x-ray or negative TB skin test.

In this course, students will begin learning the knowledge, skills, and work habits required for success in the food services industry. Using the Career Center's commercial kitchen and dining room, students will learn basic safety and sanitation, as well as fundamental cooking techniques such as frying, sautéing and roasting of meats and vegetables. In addition, students will gain an introduction to baking, and an understanding of how to properly prepare rice, pasta, and fresh salads. Students will be exposed to real-life industry scenarios which will assist them in career decision-making.

Culinary Arts & Sciences II (28523)

Full year, two credits

Grades 10-12

Prerequisite(s): Culinary Arts & Sciences I and submission of a chest x-ray or negative TB skin test

Culinary Arts & Sciences II presents an intense curriculum designed to prepare students for post-secondary education or entry-level employment in the food service industry. This course focuses on the following: cook-to-order entrées; correct cooking of meats, fish and vegetables; pizza and bread making; business entrepreneurship; and, food sciences and nutrition.

Students work in a real-world kitchen environment preparing meals for real customers. In addition, advanced baking skills are taught with an emphasis on production costs, profits and loss, scaling formulas, and successfully running a small business. Qualified

students may compete in the SkillsUSA competitions, where they can win scholarships and other valuable awards.

Culinary Arts and Sciences II covers the fundamental chemistry, mathematics and technologies required of the successful culinarian. Students will practice scaling formulas and recipes; extrapolating service requirements for banquets; as well as varying essential combinations of ingredients (acids, bases, proteins, and fats) to control their effects on the final products.

Cybersecurity I: Networks (26653) (96653W)

One semester, one half credit, + 1.0 quality point

Grades 10-12

Prerequisite(s): Concurrent enrollment with Cybersecurity I: Systems Administration; Cybersecurity I: Telecommunications & Routing Protocols; Cybersecurity I: Operating Systems

This course develops the student's skills needed to become network technicians, computer technicians, cable installers, and help-desk technicians. It provides a hands-on introduction to networking and the internet, using tools and hardware commonly found in home and small business environments. Labs include PC installation, internet connectivity, wireless connectivity, file and print sharing, and the installation of game consoles, scanners, and cameras. Additionally, students will become proficient in Microsoft Office, which includes word processing, spreadsheet, database, and presentation software to demonstrate skills required for digital literacy.

- **College Credit:** This course may be dual-enrolled at Northern Virginia Community College (NOVA) as ITE115 for a total of 3 credits at NOVA pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.
- Student-selected verified credit can be earned by passing the course-related industry certification.

Cybersecurity I: Operating Systems (26654) (96654W)

One semester, one half credit, + 1.0 quality point

Grades 10-12

Prerequisite(s): Concurrent enrollment with Cybersecurity I: Networks; Cybersecurity I: Systems Administration; Cybersecurity I: Telecommunications & Routing Protocols

This course introduces students to network design and cybersecurity process and procedures for personal and enterprise networks. Students follow a standard design

process to expand and upgrade each network, which includes requirements gathering, proof-of-concept, and project management. Focuses instruction on the installation, configuration and administration of the Windows and/or Linux operating system and emphasizes the use of Linux as a network client and workstation.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as ITN106 for a total of 3 credits at NOVA pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*
- *Student-selected verified credit can be earned by passing the course-related industry certification.*

Cybersecurity I: Systems Administration (26655) (96655W)

**One semester, one half credit, + 1.0 quality point
Grades 10-12**

Prerequisite(s): Concurrent enrollment with Cybersecurity I: Networks; Cybersecurity I: Telecommunications & Routing Protocols; Cybersecurity I: Operating Systems

This course provides students instruction in the basic overview of routing and remote access, addressing, and security. It also familiarizes students with servers that provide e-mail services, Web-space, security, and authenticated access. Students learn about the soft skills required for system administration and basic hardware configuration. Includes specially designed instruction to give a student a basic knowledge of hardware and software configurations, and cybersecurity. Includes the installation of various peripheral devices as well as basic system hardware components.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as ITN101 for a total of 3 credits at NOVA pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*
- *Student-selected verified credit can be earned by passing the course-related industry certification.*

Cybersecurity I: Telecommunications & Routing Protocols (26656) (96656W)

**One semester, one half credit, + 1.0 quality point
Grades 10-12**

Prerequisite(s): Concurrent enrollment with Cybersecurity I: Networks; Cybersecurity I: Systems Administration; Cybersecurity I: Operating Systems

This course familiarizes students with the equipment applications and protocols installed in enterprise networks, with a focus on switched networks, IP Telephony requirements, and security. It also introduces to various routing protocols. Hands-on exercises, including configuration, installation, and troubleshooting, reinforce student learning. The course also surveys data transmission systems, communication lines, data sets, network, modes of transmission, protocols, and interfacing. Emphasizes network structure and operation.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as ITN154 for a total of 3 credits at NOVA pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*
- *Student-selected verified credit can be earned by passing the course-related industry certification.*

Cybersecurity II: Network Operations (26657) (96657W)

**Full year, one credit + 1.0 quality point
Grade 10-12**

Prerequisite: Cybersecurity I, or permission of instructor

This course is designed to teach many aspects of computer support and network administration. Students learn networking concepts, from usage to components, and create peer-to-peer network systems and client server networks. Students install and configure network cards and connect them to networks. Student learn how to install operating systems, set up and manage accounts, load software, and establish and implement security plans. This course may cover software-based network operating systems, such as Windows Server or Linux.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as ITN171 for a total of 3 credits at NOVA pending acceptance to NOVA. The NOVA entrance requirements*

must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.

- *Student-selected verified credit can be earned by passing the course-related industry certification.*

Cybersecurity II: Network Operations Advanced (26658) (96658W)

Full year, one credit + 1.0 quality point

Grade 10-12

Prerequisite: Cybersecurity I, or permission of instructor

Offered as concurrent enrollment with Cyber Security II: Network Operations (26657).

This course teaches the fundamental concepts, architectures and protocols related to network security. Students will learn network administration, focusing on the management and support of network users and systems. Students learn communication protocols, troubleshooting techniques for systems and client-server networks, web site management, and other advanced networking topics. Topics covered include: overview of network security; basics of cryptology and encryption; threat models, authentication and authorization mechanisms and standards; public key infrastructure; electronic mail security; transport layer and web security; packet filtering, firewalls, intrusion detection, and virtual operating systems, set up and manage accounts, load software, and create and implement security plans are taught. This course may provide instruction about software-based network operating systems, such as Windows Server or Linux. Instruction will emphasize preparation for industry certification.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as ITN260 for a total of 3 credits at NOVA pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*
- *Student-selected verified credit can be earned by passing the course-related industry certification.*

Digital Animation (28457)

Full year, one credit

Grades: 10-12

Prerequisite: Concurrent enrollment in Graphic Communications System

Students gain experiences related to computer animation by using graphics and design concepts. Students solve problems involving 3-D object manipulation, storyboarding, texturing/mapping, lighting concepts, and environmental geometry. Students create a variety of animations that reflect real-world applications and are introduced to interactive and 3-D animation software. Production of a portfolio showcasing examples of original student work is included

Early Childhood Education I (28235)

Full year, two periods, two credits

Grades 10-12

Prerequisite(s): A tuberculin skin test and/or a chest x-ray may be required.

Early Childhood Education I is designed for students interested in preparing to be early childhood teachers in child care occupations and elementary education. Students receive classroom instruction and practical experience working with infant, toddler, preschool, elementary and special needs children. Students learn basic principles of child growth and development, explore the characteristics of early childhood programs and implementation of early childhood curriculum.

Early Childhood Education II (28236) (98236W)

Full year, two periods, two credits + 1.0 quality point

Grades 11-12

Prerequisite(s): Early Childhood Education I, or Child Development & Parenting; also, a tuberculin skin test and/or a chest x-ray may be required

This course continues to improve students' skills in teaching young children. Students become familiar with the full range of occupational opportunities in the Early Childhood Education field and focus on special-needs children. Students implement a variety of Early Childhood curriculum activities through field work placements.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as CHD120 and CHD165 for a total of up to 6 credits at NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*
- **Certifications:** *Completion of Early Childhood Education I & II will assist students in achieving the Child*

- *Development Associate (CDA) National Credential.*

Electricity I (28534)

Full year, two periods, two credits

Grades 10-12

Prerequisite(s): None

Electricity I enables students to develop electrical skills in working in residential (home) construction. Students are taught the proper use of common electrical tools, wiring techniques, the building and analyzing of electrical circuits, reading of electrical plans, and electrical problem-solving. Students are introduced to commercial new construction and communication wiring. Instruction is based on the National Electric Code. Most of the instruction is practical and hands-on. Safety and good work habits are emphasized.

Electricity II (28535)

Full year, two periods, two credits

Grades 10-12

Prerequisite(s): Electricity I

Electricity II provides instruction in the wiring methods of commercial construction and communications cabling, including telephone wiring, cable television wiring, BICSI/RBT Systems Copper based Network Cabling and Fiber Optic Network Cabling. The Occupational Safety and Health Administration (OSHA) Construction is also offered. Seniors may be eligible for a work-study program in the electrical supplies distribution field. The commercial wiring is taught to the standards of the National Electrical Code. The network cabling is taught to the BICSI/RBT Systems standard and meets the TIA/EIA 568A standard. Students will study communications wiring standards, wiring methods and techniques, network and cabling history and terminology. Those students who complete all network cabling instruction and meet all state, local, and instructor requirements will have an opportunity to take the exam for the BICSI/RBT certification, which is nationally-recognized by the telecommunications industry.

- **Certifications:** *OSHA-10 Construction Safety card; BICSI/RBT Systems Copper-based Network Cabling and Fiber Optic Network Cabling Certifications (given in English only).*

Emergency Medical Technician/Human Anatomy and Physiology (98334W)

Full year, two periods, two credits + 1.0 quality point

Grades 11-12

Prerequisite(s): Biology I and students must meet all Virginia Department of Health, Office of Emergency Medical Services regulatory eligibility requirements to attend an EMT program, including: Be at least 16 years of age at the start of the course; have parental

permission if under age 18; be proficient in reading, writing, speaking and understanding the English language as determined by Arlington Public Schools.

This program is a college-level course taught to the National Highway Transportation Safety Agency/US Department of Transportation 1994 Emergency Medical Technician-Basic (EMT-B) National Standard curriculum. This program is ideal for the student interested in the medical field or any career requiring First Aid certification. Students will study anatomy, physiology, introduction to emergency medical care, airway management, patient assessment, medical emergencies, obstetrical/gynecological emergencies, care of the trauma patient, pediatric emergencies, and ambulance operations. Students will also complete the American Heart Association Basic Life Support for the healthcare provider and a first aid course. Students will also be provided the opportunity to assist and observe in a hospital emergency department or ride-along on an emergency ambulance.

- **Additional high school credit:** *A credit earned in this course satisfies the third lab science credit for the standard diploma or the fourth lab science credit (Biology II Anatomy/Physiology 24330) for the advanced diploma. Students receive one credit for laboratory science and a second credit for fine/practical arts.*
- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as EMS11 and MS120 for a total of up to 8 credits at NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details. This allows a pathway for the student to obtain an AAS degree in EMS with an automatic acceptance to George Washington University's on-line Bachelors in Health Sciences degree program at reduced tuition.*

Energy and Power (28536)

Full year, one credit

Grades 10-12

Prerequisite(s): Concurrent enrollment in Electricity I

In this course students analyze energy sources and explore the generation, transmission, and distribution of electricity. The course provides math, science, and technical writing skills through hands-on application. Students have an opportunity to take the Energy Industry Fundamentals Certificate Assessment.

Engineering I: Intro to Engineering Design (28491)**Full year, one credit****Grades 9-12***Prerequisite(s): None*

Engineering I emphasizes the development of engineering design. Students use computer software to produce, analyze and evaluate models of project solutions. They study the design concepts of form and function, and then use state-of-the-art technology to translate conceptual design into reproducible products. This course teaches students to understand and apply the design process, apply adaptive design concepts to develop sketches, solve design problems while they develop, create and analyze product models using solid modeling computer design software.

Engineering II: Principles of Engineering (28492)**Full year, one credit****Grades 10-12***Prerequisite: Engineering I or concurrent enrollment in Engineering I*

This course provides an overview of engineering technology. Students develop problem-solving skills by tackling real-world engineering problems. Through theory and practical hands-on experiences, students address the emerging social and political consequences of technological change. Some of the topics covered will be an overview and perspective of engineering, the design process, communication and documentation, and engineering systems, statics, materials and materials testing, and thermodynamics

Engineering III: Computer Integrated Production Engineering (28493)**Full year, one credit****Grades 10-12***Prerequisite: Engineering I*

In this specialization course, students are taught concepts of robotics and automated manufacturing by creating 3-D designs with computer modeling software and producing computer-controlled models of their designs.

Engineering IV: Design and Development/Capstone Course (28494)**Full year, one credit****Grades 10-12***Prerequisite: Engineering I and II*

In this capstone course, teams of students, guided by community mentors, work together to research, design, and construct solutions to engineering problems. Students synthesize knowledge, skills, and abilities through an authentic engineering experience. Students are expected to develop and formally present an independent-study project and a team-oriented project that are critiqued by an evaluation committee.

Project Lead the Way (PLTW)

“Project Lead the Way” is a nationally-recognized sequence of courses for orienting students to engineering and preparing them for success in college engineering programs. Students entering this program of study must be enrolled in a college prep sequence of math and science.

Forensic Technology with application in Biotechnology (28325)**Full year, two credits****Grades 10-12***Prerequisite(s): Biology I*

Forensic Technology with application in Biotechnology is designed for students seriously interested in any of the forensic sciences as a career field, particularly ones involving biotechnology. It is a challenging course because of the amount of college-level material. Students will learn how to process crime scenes, perform DNA analysis, complete refractive index tests on glass samples, analyze blood spatter patterns, and participate in seminars which are designed to discuss case studies. Students will be required to perform standard laboratory protocols, and follow the scientific method in all analyses. Students will learn various techniques used in the different forensic sciences, for example, entomology, osteology, anthropology, forensic botany, toxicology, and DNA analysis. This course is especially recommended for students who have a strong science background.

Graphic Communications System (28458)**Full year, one credit****Grades: 10-12***Prerequisite: Concurrent enrollment in Digital Animation*

Graphic Communications System focuses on creating computer graphic images for display on the World Wide Web. Students acquire knowledge regarding the difference between Web graphics and print graphics. Through class projects, students create work using a variety of image-making software. By developing quality art images, students learn the highly transferable skills of visual communication. These skills are increasingly in demand in our web-connected world. Students create a professional digital portfolio of completed work.

Health Sciences (28303)**Full year, one credit****Grades: 10-12***Prerequisite: Concurrent enrollment in Medical Terminology*

This course introduces the student to a variety of healthcare careers and develops basic skills required in all health and medical sciences. It is designed to help students understand the key elements of the U.S. healthcare system and to learn basic healthcare terminology, anatomy and physiology for each body system, pathologies, diagnostic and clinical procedures, therapeutic interventions, and the fundamentals of traumatic and medical emergency care. Throughout the course, instruction emphasizes safety, cleanliness, asepsis, professionalism, accountability, and efficiency within the healthcare environment. Students also begin gaining job-seeking skills for entry into the health and medical sciences field. In addition, instruction may include the basics of medical laboratory procedures, pharmacology fundamentals, biotechnology concepts, and communication skills essential for providing quality patient care.

Introduction to Information Technology (26116)**Full year, one credit****Grades 9-12***Prerequisite(s): Concurrent enrollment with Computer Information Technology*

This course is an essential foundation class for all students interested in computers, networking, and web-based application and programming. Students who like computers and want to know more about set-up, troubleshooting, and how they work should consider this course. Included technologies are computer solutions for home, school and business. The course prepares students for upper level study and certifications in PC platforms (A+, Net+), network hardware and operating systems, and web-based programming (Java).

Medical Terminology (28383) (98383W)**Full year, one credit + 1.0 quality point****Grades: 10-12***Prerequisite: Concurrent enrollment in Health Sciences (28303)*

Medical Terminology is designed to help students learn health care language. Topics are presented in logical order, beginning with each body system's anatomy and physiology and progressing through pathology, diagnostic procedures, therapeutic interventions, and finally pharmacology. Students learn concepts, terms, and abbreviations for each topic.

- **College credit:** This course may be dual-enrolled at Northern Virginia Community College (NOVA) as HIM 111 for a total of 3 credits at NOVA. The NOVA entrance

requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.

Pharmacy Technician (28305)**Full year, two credits****Grade 10-12***Prerequisite(s): None*

This certificate program is designed to provide students with the basic skills and knowledge to begin work as a pharmacy technician. The coursework will fulfill the requirements of the Board of Pharmacy and prepare students to take either the state examination or the national examination administered by the Pharmacy Technician Certification Board. Trained, experienced pharmacy technicians who can demonstrate the right skills and knowledge would be able to pursue many exciting and respected career options or postsecondary study in the pharmacy field.

- **Certifications:** Pharmacy Technician Certification Board (PTCB) Examination

Photo and Video Technology I (28625)**Full year, one credit****Grades 10-12***Prerequisite: Concurrent enrollment in Photo and Video Technology II*

Imaging Technology introduces students to the basic principles of photography while providing a strong emphasis on digital imaging. Students study the development of photography as a communication medium and its evolution into the digital realm. Students learn to use image-editing software to manipulate digital images.

Photo and Video Technology II (28626)**Full year, one credit****Grades 10-12***Prerequisite: Concurrent enrollment in Photo and Video Technology I*

This course offers students a hands-on opportunity to study all aspects of video and media production. Students will conceptualize, plan, and contribute through all production phases: preproduction, production, and postproduction. In addition, students will practice various methods of gathering and recording information and creating novel content to create a variety of video and media productions while operating studio editing software and video and audio equipment.

Physical Therapy/Sports Medicine Technology (28332)

Full year, two periods, two credits (Optional: 105 clinical hours for three credits)

Grades 10-12

Prerequisite(s): Biology I and a chest X-ray or tuberculin skin test is required if participating in the optional 3rd credit- Clinical Observation.

Physical Therapy/Sports Medicine Technology is designed for students interested in all aspects of rehabilitative medicine such as physical therapy, athletic training, exercise physiology, occupational therapy, and sports medicine. It is a very challenging course because of the substantial amount of college-level material and competency-based curriculum. Students will study anatomy and physiology, cardiovascular stress testing, therapeutic exercise, body composition, ambulation, effects of ultrasound/electrical stimulation, hydrotherapy, and goniometry. They become skilled in the evaluation of athletic injuries, initial emergency medical assessment and care, modality application, formation of rehabilitative exercise programs and taping. In addition, students will receive certification in American Red Cross CPR/AED and Standard First Aide for healthcare providers. An integral part of the program is the “hands-on” experience students can gain while assisting and treating patients under the supervision of licensed physical therapists, certified athletic trainers, orthopedic physicians, and exercise physiologists during clinical internships.

- **Additional high school credit:** A credit earned in this course will satisfy the third lab science credit for the standard diploma or the fourth lab science credit for the advanced diploma (Biology II-Anatomy and Physiology 24330).

Robotic Design (28421)

Full year, one credit

Grades 9-12

Prerequisite(s): None

Students engage in the study of computers and microprocessors and their applications to manufacturing, transportation, and communication systems. Topics include computer equipment and operating systems, robotics, programming, control systems, and social/cultural impact of these technologies. Problem-solving activities challenge students to design, program, and interface devices with computer systems. Learning activities include robotics, computer-aided design, computer-aided manufacturing and design, and control of electromechanical devices. Students will be eligible for certification through both the Robotics and Automation Technology Exam and Workplace Readiness Exam.

Technical Animal Science I/ Small Animal Care (28064)

Full year, one credit

Grades 9-12

Prerequisite: Biology I-Concurrent Enrollment in Veterinary Science

Students learn how to care for and manage small animals, focusing on instructional areas in animal health, nutrition, management, reproduction, and evaluation. Course content also includes instruction in tools, equipment, and facilities for small animal care, and provides activities to foster leadership development.

Sustainable and Renewable Technologies (28460)

Full year, one credit

Grades 9-12

Prerequisite: Concurrent enrollment in Construction Technology (28512)

This course introduces students to the historic, economic, political, environmental, and cultural issues that impact the global community and its’ future. Students will address issues affecting the health of our environment and explore solutions offered by sustainable agriculture, energy efficient building design, and renewable energy sources. Students will enhance their carpentry skills as they learn about and build structural models and/or prototypes with an emphasis on materials science, renewable energy systems and sustainable technologies, and the related industries. Students will investigate relevant jobs in architecture, architectural engineering, civil engineering, carpentry, electricity, plumbing, heating and air conditioning, surveying, contract management, masonry, and construction engineering and construction management, and environmental management. Students build and test scale-model structures, plan site preparation, design structures and infrastructure projects, and utilize computer software and other appropriate tools used in these careers.

Television Production I (28689) (98689W)**Full year, two periods, two credits + 1.0 quality point****Grades 9-12***Prerequisite(s): None*

Television Production I covers the theory and practice of digital media production. Students develop skills through “hands-on” projects in the Career Center’s Digital Media Production Facility, one of the best of its kind in Virginia. Production assignments range across the fields of television, radio and the internet, and include public service announcements (PSAs), music videos, independent short films, radio spots, websites and animation. Television Production students routinely earn local, state and even national prizes through many opportunities for competitions and client work afforded by this course. Students work individually and in groups to produce original pieces, which they take with them as professional digital portfolios at the end of the class.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) PHT 130 for a total of 3 credits at NOVA towards an Associate’s Degree in Information Technology pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*

Television & Multimedia Production II (28690) (98690W)**Full year, two periods, two credits + 1.0 quality point****Grades 10-12***Prerequisite: Television I or permission of instructor*

Television & Multimedia Production II is an intense, hands-on course that prepares students to function as professional media producers. The class models a commercial production company, giving students multiple opportunities to produce creative projects in the Career Center’s impressive Digital Media Production Facility. Projects may be produced for competitions, clients and community partners. Students also are given the opportunity to produce independent projects, such as original short films or documentaries. These projects teach students the media production business while helping them to build professional portfolios that will set them apart from their peers. This advantage leads to awards, internships, scholarships, and successful higher education and career paths.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) PHT 131 for a total of 3 credits at NOVA towards an Associate’s Degree in Information Technology pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*

Television & Multimedia Production III (28691)**Full year, two periods, two credits****Grades 11-12***Prerequisite: Television & Multimedia Production II*

Students will demonstrate mastery of media production knowledge and skills. They will function as media producers by creating original productions as they develop and market programs for target audiences. Students will assemble a professional digital portfolio to advance postsecondary and career goals. They will investigate the dynamic media production industry and identify opportunities for real-world experiences (e.g., internship, job shadowing). Students will research postsecondary opportunities and formulate strategies for both college and career success.

Technical Animal Science II/Veterinary Science (28061)**Full year, one credit****Grades 9-12***Prerequisite: Biology I-Concurrent enrollment in Technical Animal Science I/ Small Animal Care*

Veterinary Science enables students to acquire the employability and technical knowledge and skills needed to succeed in postsecondary education as well as in a career in veterinary medicine or a related occupation. Students work with the wide variety of domestic and exotic animals housed at the Animal Science facility. Course content integrates application of academics, development of career competencies, and instruction in course specific knowledge and skills, such as business management, the use of tools, equipment, and facilities related to veterinary medicine. The program’s strong partnerships with local animal related businesses allows for opportunities to build leadership skills and participate in internships. Students enrolled in the course should have a strong background in math and science and should be familiar with small animal care. Students may earn 3 articulation credits for ZOO 276- Animal Management Internship 2, from State University New York – Jefferson Community College towards an Associate of Applied Science Degree in Zoo Technology.

- **Additional high school credit:** A credit earned in this course will satisfy the third lab science credit for the standard diploma or the fourth lab science credit for the advanced diploma (Biology II-Advanced Survey of Biology Topics 24320)). In addition to the science credit, students will receive a second credit for fine/practical arts. This course also counts as a sequence for the modified standard diploma.

Advanced Animal Science I/Veterinary Assistant I (28062)

Full year, one credit

Grades 9-12

Prerequisites: Biology I and Concurrent enrollment in Advanced Animal Science II/Veterinary Assistant II

Advanced Animal Science combines the hands-on skills needed to succeed in animal related careers, including but not limited to veterinary science, with the theoretical knowledge to prepare students for further study of the field through postsecondary education. Students focus on small companion animals. Their handling, feeding, maintenance and grooming are practiced daily. Students learn about behavior and train the various lab animals. Students can become certified in cat and dog first aid through the American Red Cross. Students interact with the wide range of small companion animals housed at the animal science facility including dog, cats, rabbits, mice, rats, and gerbils. Through this program's strong partnership with local animal related businesses, successful students have the opportunity to participate in internships.

Advanced Animal Science II/Veterinary Assistant II (28063)

Full year, once credit

Grades 10-12

Prerequisite: Biology I-Concurrently enrollment in Veterinary Assistant I

Students expand their knowledge of animal science and the care of animals, including comparative anatomy, disease prevention, parasitology, genetics and breeding. Students will focus on handling the large and exotic animals in the lab such as a miniature horse, goats, chicken, parakeets, cockatoos, snakes, lizards, turtles, frogs, fish and arthropods. Additional technical skills in veterinary assisting will be introduced and practiced. Students may earn 3 articulation credits for ZOO 276 - Animal Management Internship 2, from State University New York - Jefferson Community College towards an Associate of Applied Science Degree in Zoo Technology.

- **Additional high school credit:** A credit earned in this course will satisfy the third lab science credit for the standard diploma or the fourth lab science credit for the advanced diploma (Biology II-Advanced

Survey of Biology Topics 24320). In addition to the science credit, students will receive a second credit for fine/practical arts. This course also counts as a sequence for the standard diploma.

ADDITIONAL NON-COURSES OFFERED AT THE ARLINGTON CAREER CENTER

Pre-Calculus: NOVA MTH 163/164 Dual Enrollment (93162W)

Full year, one credit + 1.0 quality point

Grades 9-12

Prerequisite: Qualifying score on the VPT (pass all 9 units, up to Algebra II content)

NOVA MTH 163 presents college algebra, matrices, and algebraic, exponential, and logarithmic functions. NOVA MTH 164 presents trigonometry, analytic geometry, and sequences and series. This course prepares the student for MTH173/174 calculus and Analytical Geometry I/II.

Calculus: Dual Enrollment (23176) (93176W)

Full year, one credit + 1.0 quality point

Grades 9-12

Prerequisite: MTH 166 or MTH 164 or two units of Algebra, one unit of Geometry, and one-half unit each of Trigonometry and Pre-calculus

Presents analytic geometry of algebraic and transcendental functions including the study of limits, derivatives, differentials, and an introduction to integration along with their applications. Designed for mathematical, physical and engineering science program.

English 12 Dual Enrollment (91160W)

Full year, one credit, + 1.0 quality point

Grade 12

Prerequisite: Students must meet the NOVA entrance requirements

In addition to fulfilling the requirements delineated for English 12 (21160), English 12 dual enrollment introduces students to critical thinking and the fundamentals of academic writing. Through the writing process students refine topics; develop and support ideas; investigate, evaluate, and incorporate appropriate resources; edit for effective style and usage; and determine appropriate approaches for a variety of contexts, audiences, and purposes. Writing activities will include exposition and argumentation with at least one researched essay that requires students to locate, evaluate, integrate, and document sources and effectively edit for style and usage.

- **College credit:** *This course is dual-enrolled at Northern Virginia Community College (NOVA) as English 111 and English 112 for a total of 6 credits at NOVA pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*

Environmental Science (24365)

Full year, one credit

Grades 10-12

Prerequisite: Successful completion of Biology

This is a laboratory course. The course is designed to explore topics in both biology and environmental science in depth rather than breadth. This is an interdisciplinary course that approaches topics from not only scientific, but also, literacy, political, and historical perspectives. Some of the topics studied in this course include agriculture, food issues, sources of pollution and their effects on living things, biodiversity, conservation techniques, the energy crisis, as well as local ecological impacts.

United States and Virginia Government, Dual Enrollment (92240W)

Full year, one credit + 1.0 quality point

Grade 12

Prerequisite: Students must meet the NOVA entrance requirements

The objectives of this course focus on the sources from which American governmental institutions derive their authority to function, and the applications of this authority to critical processes, procedures, and systems. The influence of various groups and the patterns of their world governments are also studied. The key concepts for students are the foundation of government, rights, responsibilities, liberty, institutions political processes, public programs policy making, and comparative political and economic systems. In addition, this course provides an in-depth analysis of American Government and Politics with emphasis on critical thinking and writing skills.

- **College Credit:** *This course is dual enrolled at Northern Virginia Community College (NOVA) as PLS 135-American National Politics and PLS 136- State and Local Politics for a total of 6 credits at NOVA pending acceptance at NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at a college level. Please consult with your counselor for more details.*

INTERNSHIP PROGRAMS

PRIME (Professional Related Intern-Mentorship Experience) (29060)

Full year, one credit

Grades 11-12

Prerequisite(s): Students must be 16 years of age and able to provide their own transportation

PRIME is an internship program for students who have been identified for gifted services and/or have completed at least one year in a CTE class with the expectation to continue to the next level. It is designed to provide students with an opportunity to be placed as interns in professional organizations that relate to their fields of interest. Students are assigned a mentor with whom they spend 140 hours during the summer for credit. Please check the Career Center website for more information and forms.

School to Work Transition/Internship (29828)

Full year, two periods, two credits

Grades 11-12

Prerequisite(s): Minimum 16 years of age; completion of Career Center CTE program (full program series) with a grade of "C" or better; plus, a written recommendation from CTE Skills teacher

This course is designed for students who have completed a Career & Technical Education (CTE) program sequence and wish to further their education and skills by either working in a job related to their career choice or continuing their training through mastery of advanced skills in their chosen skill area. Students will receive internship referral assistance from the CTE instructor and the internship coordinator. Students must be at the internship site a minimum of 280 hours per school year in order to earn two credits. Students are evaluated by the internship supervisor twice per quarter in order to determine the quarter grade.

ACADEMIC PROGRAMS

Arlington Tech at the Career Center

The dynamic program, Arlington Tech, is centered on project based learning that prepares students to succeed in college and in the workplace through rigorous coursework and collaborative problem solving. Students will learn how to effectively combine their interdisciplinary core academic knowledge with their developed skills in Career Technical Education (CTE) classes to solve environmental, ecological, and engineering problems. There will be an emphasis on hands-on work based activities and projects in which students will put theory into action, and use critical thinking skills to solve relevant local and global real world problems.

Arlington Tech will provide the opportunity for students to explore and become certified in a variety of CTE programs. Certifications will allow students to enter into a range of professional careers upon exiting high school. This program will also allow students to get a jump start on college by earning college credits through dual enrolled academic and STEM related courses in Engineering and IT/Digital Media.

The Academic Academy Grades 9-12

Prerequisite(s): Admission to the Academic Academy is made by the Program's Coordinator

The Academic Academy is a program designed for students as an alternative to the comprehensive high school. Students in grades 10 through 12 are served, as well as 9th grade students who have not yet completed the requisite coursework for admission to high school in Arlington Public Schools.

This program is designed with small class settings, low teacher/student ratio, individualized teacher mentoring, and structured academics. Curriculum areas include English, math, social studies, and science. In addition to academics, students have the option of enrolling in one the many Career and Technical Education (CTE) elective classes offered at the Career Center. Students may attend the Academy for five periods and return to the comprehensive high school for an additional two classes, or students may choose to spend the entire academic day at the Career Center.

Ninth grade students enrolled in the Academy spend one year in a transition schedule allowing them to move from the middle school setting, and after successful completion of coursework, return to a 10th grade placement in the comprehensive high schools. This includes a schedule of classes designed to meet the 9th grade curriculum, while at the same time

scheduling 8th grade coursework not yet successfully completed.

The Academic Academy is located at the Arlington Career Center, 816 South Walter Reed Drive, Arlington, Virginia. The Program Coordinator can be reached at 703-228-5790.

- **High School credit:** *Students earn credits in all Academy courses, which are applied toward a high school diploma.*

Institute for Career Development and Academic Achievement (HILT Institute) Grades 9-12

Prerequisite(s): Admission to the HILT Institute is made by the Program's Coordinator

The Institute program is designed for the older HILT or HILT-EX students (ages 16-21) who would benefit most from a small and structured academic environment, integrated with a career and technical component. Students who are selected for the Institute enroll in a two-period integrated block of language instruction in reading, writing and grammar. They also take three additional credits in math, science, and social studies. Finally, students enroll in a two-period Career & Technical Education (CTE) elective class at the Career Center. Students who attend the program benefit by working toward their high school diplomas while obtaining certifications or licenses in their selected professional areas, and/or receiving college credits for their technical classes.

- **High School credit:** *Students earn credits in all Institute courses, which may be applied toward a standard or advanced high school diploma.*

Program for Employment Preparedness (PEP)

(Formerly known as SWAT/EBCE)

Full year, all day program; 6-8 credits Grade 12 and post-graduate

Prerequisite(s): The referral process must begin with the Transition Coordinator at the comprehensive high school.

Besides having a current Individual Education Program (IEP), PEP students must be close to ending their home school academic experiences; be able to function independently or with only some assistance from staff; and, be capable of taking public transportation independently or with minor assistance, after minimal training; and be able to function independently or with some assistance in the community at career internships. Student can be enrolled in CTE classes, provided they can independently, or with minor assistance, assimilate with the curriculum rigor required for each individual class, at the Career Center. The PEP Program can provide a combination of office technology, unpaid career internships, as well as occupational knowledge, and/or offer personal finance and social skills both at the Career Center, and/ or the

community at large. There are some academic courses that can be offered based on each student's individual needs. A student's week will include three to four hour days at internship sites, and may include exploration of non-SOL related academic course work. Supervision can be provided for some students at their internships, as students are expected to reach a certain level of independence with training.

PEP provides students with a combination of academic instruction and unpaid career exploration at internship sites in the community. A typical student's schedule includes two full days of academic classes at the Career Center and three four-hour days at an internship site. Most students will explore two or three different careers during the school year. PEP students earn academic credits required for a high school diploma or certificate, as well as elective credits. Students may be earning any type of diploma, but please note that EBCE cannot offer verified academic credits.

Occupational Knowledge (20998)

Full year, one credit

Grade 12 and post-graduate

Prerequisite(s): Enrollment in PEP

Students in PEP meet with the Program Coordinator one day per week for academic instruction related to the world of work. Students are encouraged to analyze their placements and evaluate their own performance. They consider how the demands and satisfactions of a particular type of work mesh with their abilities and needs. Each student compiles a transition notebook. This course may be taken more than once.

Occupational Exploration (20999)

Full year, two credits

Grade 12 and post-graduate

Prerequisite(s): Enrollment in PEP

PEP students intern at community sites three days a week for a total of approximately 12 hours. PEP staff develop and analyze potential sites prior to student placement. Sites are assigned on the basis of student interest and abilities, as well as the demands of available sites. At the sites, regular employees serve as mentors and oversee student progress. Students receive written evaluation of their work-related performance, skills, and behavior. Journals and regular conferences with EBCE staff encourage students to talk about internship concerns and growth.

Occupational Training/Education for Employment (20976)

Full year, two periods, two credits. May be repeated for two additional elective credits.

Grades 9-12

Prerequisite(s): Students must have either a current Individualized Education Program (IEP), or a referral from a teacher or counselor.

Students participate in both classroom activities and career and technical skill exercises designed to develop and strengthen employability behaviors, positive attitudes toward work, interpersonal and co-worker relationships, and social and independent living skills. Structured work experiences are also available for students enrolled in the program.

CAREER ASSESSMENT SERVICES

Eligibility and referral: The assessment program is available to all high school students with an Individualized Education Program (IEP). Students are usually referred for assessment services through the Transition Office of each secondary school. Recommendations can come from school counselors, special education staff, family, or through self-referral.

Career & Technical Assessment Services is designed to provide a comprehensive picture of a student's career interests, aptitudes, employability behaviors, and career decision-making skills. Each assessment is established by the evaluator and the referral source, and is individualized according to each student's needs. Following the assessment, a report is prepared which outlines the results of the student's evaluation and provides both short-term and long-term recommendations for career and technical preparation programs.

ARLINGTON COMMUNITY HIGH SCHOOL

Arlington Community High School is a county-wide school of choice for students age 16 and older completing their high school diploma. As an accredited high school of enrollment, diplomas are awarded under the Arlington Community High School name. It is distinguished by offering courses required for a high school diploma on a semester basis (day classes – up to 8 credits per year) and on a year-long basis (evening classes – up to 2 electives and 2 core classes per year). Classes operate in both the day and evening hours, from 8:00 a.m. to 9:10 p.m.

Arlington Community High School's extremely diverse student population is focused on earning a high school diploma, while preparing themselves for college, work, and their future. In addition to offering courses for all diploma requirements, opportunities exist for completing Career and Technical courses through both day and evening schedules. And dual enrollment college credits with Northern Virginia Community College Students interested in enrolling in Arlington Community High School should contact the school directly, or see their current school counselor for enrollment information.

ADDITIONAL Non-AP COURSES OFFERED AT ARLINGTON COMMUNITY HIGH SCHOOL

Career Investigations (22010)

Full year, one credit

Prerequisite: None

Students assess their roles in society, identify their roles as workers, analyze their personal assets, complete a basic exploration of career clusters and select career fields or occupations for further study, and identify or secure a career field job-shadowing position with a local employer.

English 12 Dual Enrollment (91160W)

Full year, one credit, + 1.0 quality point

Grade 12

Prerequisite: Students must meet the NOVA entrance requirements

In addition to fulfilling the requirements delineated for English 12 (21160), English 12 dual enrollment introduces students to critical thinking and the fundamentals of academic writing. Through the writing process students refine topics; develop and support ideas; investigate, evaluate, and incorporate appropriate resources; edit for effective style and usage; and determine appropriate approaches for a variety of contexts, audiences, and purposes. Writing activities will include exposition and argumentation with at least one researched essay that requires students to locate, evaluate, integrate, and document sources and effectively edit for style and usage.

- **College credit:** *This course is dual-enrolled at Northern Virginia Community College (NOVA) as English 111 and English 112 for a total of 6 credits at NOVA pending acceptance to NOVA. The NOVA entrance requirements must be met before registering. The content of this course is taught at the college level. Please consult with your counselor for more details.*

Environmental Science (24365)

Full year, one credit

Grades 10-12

Prerequisite: Successful completion of Biology

This is a laboratory course. The course is designed to explore topics in both biology and environmental science in depth rather than breadth. This is an interdisciplinary course that approaches topics from not only scientific, but also, literacy, political, and historical perspectives. Some of the topics studied in this course include agriculture, food issues, sources of pollution and their effects on living things, biodiversity, conservation techniques, the energy crisis, as well as local ecological impacts.

HILT/HILTEX Grammar Development (20891)

Full year, one credit

Grades 9-12

Prerequisite(s): Enrollment in HILT/HILTEX program

This elective course will provide an opportunity for HILT/HILTEX students to receive focused instruction and practice in specific areas of grammar according to their needs.

WAKEFIELD HIGH SCHOOL

Special Programs for All Students

2017 - 18

**FOUNDATION PROGRAM for ACADEMIC EXCELLENCE
(Grade 9)**

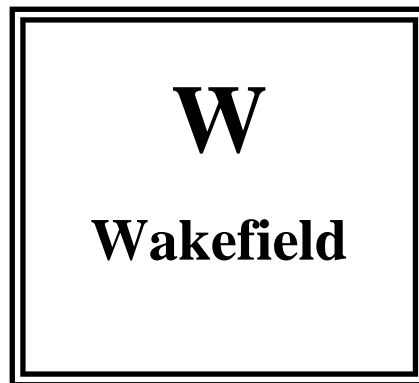
**COMPUTER INFORMATION SYSTEMS
SEQUENCE**

**SENIOR PROJECT GRADUATION REQUIREMENT
(Grade 12)**

ADDITIONAL COURSE OFFERINGS AT WAKEFIELD

IMMERSION PROGRAM

ADVANCED PLACEMENT NETWORK



Arlington, VA

FOUNDATION PROGRAM FOR ACADEMIC EXCELLENCE

GRADE 9

Grade nine students come to high school ready for the important challenge of passing through adolescence to adulthood, preparing themselves for a successful entrance into the post-high school world of higher education, job and career commitment, and social maturity. Our program for ninth graders is designed to prepare students for success in the intellectual, social, and physical domains of adulthood.

In our Foundation for Academic Excellence Program, we provide ninth grade students who have just exited their middle school as young teenagers, with what we consider the fundamental intellectual and learning tools to succeed academically in all areas of their high school experience. They will acquire skills, content knowledge, and intellectual acumen to master intensive blocks of advanced level subject area instruction.

The Foundation for Academic Excellence Program provides students with a rigorous offering in math, English, science, and social studies that infuses technology into the curriculum, allowing for a greater and more robust academic experience for all students. The program provides for intensified and regular level sections of English 9, World History, Biology, and mathematics. The houses also offer co-taught sections of core courses to accommodate the learning needs of special education students.

PROGRAM CHARACTERISTICS

Personalized Instruction

Students are grouped into academic teams, or “*Houses*”, for a portion of their school day. They are taught by a team of teachers who get to know each student. The teachers are able to differentiate instruction and provide enrichment, remediation, and acceleration as appropriate.

Interdisciplinary Learning

The House organization allows for the team of teachers to plan together and develop interdisciplinary units. These units allow students to see connections between content areas and transfer knowledge and learning to real life experiences. Technology is taught as a tool to support learning in all areas.

Student Responsibility for Learning

Students acquire the skills and intellectual tools to learn to take responsibility for their own learning, to develop confidence in their own growing abilities to set personal goals, to manage time and commitments to meet these goals. They also begin to establish long-term goals in post-high school and career plans.

STUDENT ASSESSMENT

All students are expected to demonstrate mastery of the four core areas (English, mathematics, science, and social studies) as specified by the curriculum objectives for each subject based on APS curricula and Virginia Standards of Learning. Forms of assessment include traditional tests, daily assignments, exhibits, group and individual projects, and interdisciplinary multi-media presentations.

Student progress is monitored on a continual basis by each teacher in the house and reviewed with the student. At the mid-term of the second marking period, each student is assigned a parent - student-teacher conference appointment during the Foundation Program conference day. This provides parents and students with an overview of achievement during the first semester, goals for the second semester, and answers to questions concerning course selection for the tenth grade. Additional opportunities for conferences are provided during the year as needed.

INSTRUCTION

Curriculum

The county-approved curriculum is followed in the core subjects of science, (Biology, Intensified Biology, or Immersion Intensified Biology), English (English 9 or English 9 Intensified), mathematics (Algebra I, Part I, Algebra I, or Geometry, Intensified Geometry), and social studies (World History 1500 to the present or Intensified World History 1500 to the present). Students who enter Grade 9 ready to take Algebra II and/or AP World History may take the class(es) out of the House.

Students receive a MacBook Air in the beginning of the school year and are exposed to a variety of computer programs and applications such as word processing, spreadsheets, databases, publishing, graphics, web page creation, and visual basic programming. Students also learn how to use audio, visual, and video technology to design presentations.

Gifted Differentiation

The curriculum presented in all intensified and upper level courses includes explicit and extended instruction in creative and critical thinking, problem solving, seminar discussion skills and research methods. The pacing of instruction and the expectations of performance are aimed to meet the intellectual aptitude of the gifted student.

Acceleration/Remediation

Each house operates in a flexible and differentiated manner which facilitates varied levels of learning. Opportunities for advanced learning are provided to students as they demonstrate need and desire. Grouping within the House exists to accommodate students who demonstrate their readiness for an accelerated program. The House structure provides differentiated opportunities for student support through individual remediation and strengthening.

Special Education Students

The Foundation Program includes opportunities for inclusion of Special Education students.

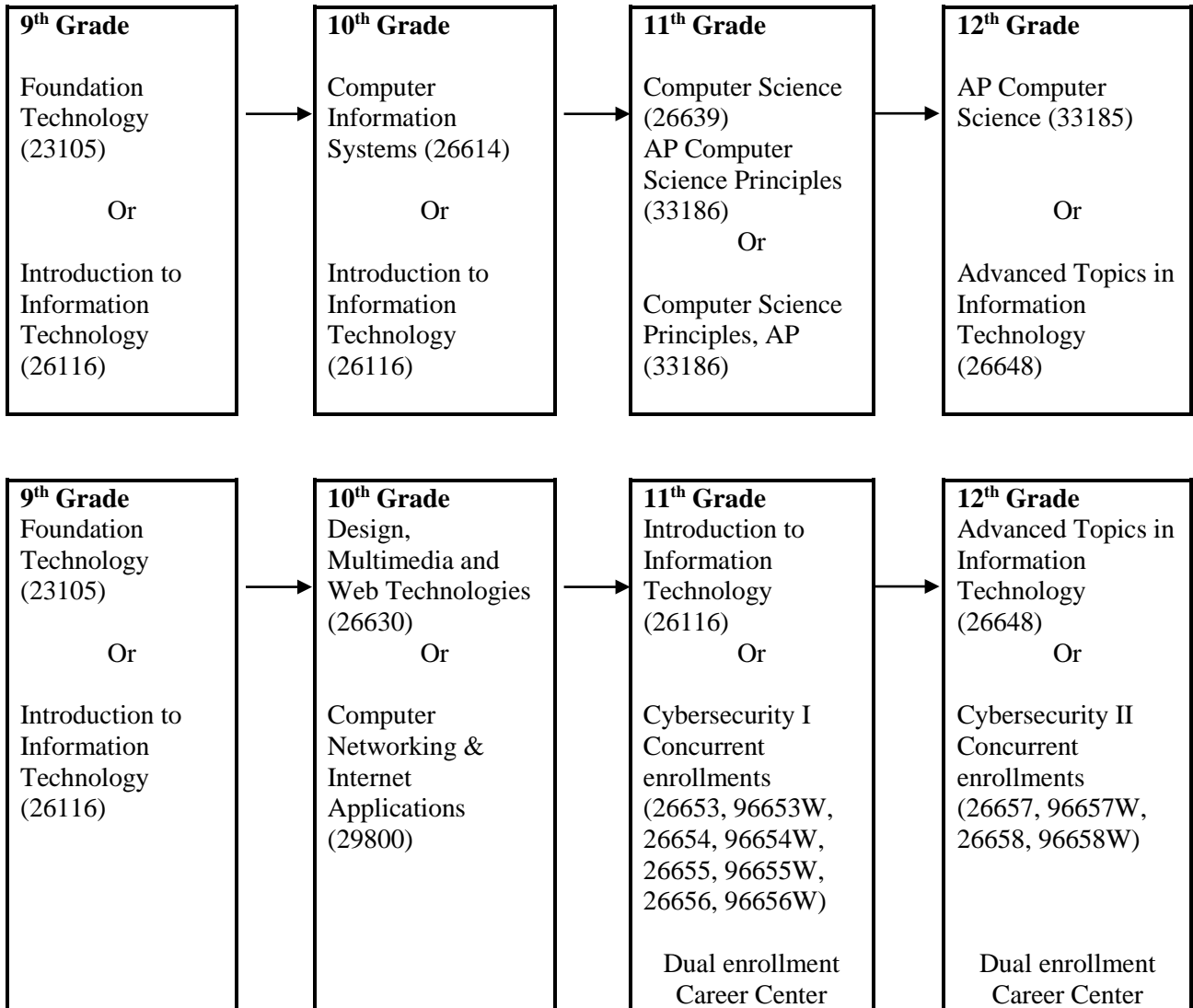
ORGANIZATION AND SCHEDULE

- Each House has a team of core teachers and a counselor(s) who share the same group of students.
- Each House includes students who are identified for gifted services, students who receive Special Education services, and students who are English Language Learners.
- Students take their math and elective classes out of the House. These electives include Health and PE I, world language courses, and fine and performing arts.

INFORMATION TECHNOLOGY PATHWAY
Course Sequence

The Information Technology course sequence builds on the core Grade 9 Foundation Technology course and is designed for students who wish to pursue future college study and/or a career in the computer field, and for students who have an interest in learning the use of computer technology to enhance their lives. Students will learn computer programming, networking, and computer applications including multimedia and graphic design. Students will also have the opportunity to work in the community and participate in internships using the knowledge they have gained. After completing this program student will have the computer skills necessary to make informed decisions and choices about their education and careers in computer technology.

Information Technology Sample Sequences:



SENIOR PROJECT GRADUATION REQUIREMENT

Grade 12

Senior Project Seminar

Full year, one credit (20190)

Semester, one half credit (21095)

Grade 12

Senior Project Independent Study (20191)

Full year, one credit

Grade 12

The Senior Project is an independently researched and prepared product completed by each 12th grader on a topic of his/her choice. The Senior Project is an opportunity for the student to demonstrate his/her ability to select, research, write and produce a significant product which is presented to an assessment panel including a faculty member, a peer, an expert consultant, and another adult. The Senior Project includes a proposal, an authentic journal of progress over time, an expository essay and an oral presentation with visual aids. Each senior works under the guidance of a faculty advisor and a consultant in the preparation and presentation of this project. The Senior Project can serve as a piece for review by future employers, as well as for review by college and university personnel, and may also serve as a basis for continued research beyond high school. ***Because this represents a capstone experience for our Wakefield students, a challenge for which they have been prepared in 9th, 10th and 11th grades, Senior Project is a graduation requirement.*** Students will receive one credit upon satisfactory completion of the Senior Project. Students may complete the Senior Project as an independent study (20191) or by enrolling in a Senior Project Seminar class (20190) for a full year or in the second semester of his/her senior year (21095) for .5 credit.

ADDITIONAL ADVANCED PLACEMENT COURSES OFFERED AT WAKEFIELD

Environmental Science, AP (34270)

Full year, one credit + 1.0 quality point per credit upon completion of both credits and AP exam, double periods, concurrent enrollment with (34271)

Grades 11-12

Prerequisite: Successful completion of two lab sciences (one life and one physical); however, students may be concurrently enrolled in Chemistry IF they have completed 2 lab sciences (one life and one physical); satisfactory completion of or concurrent enrollment in Algebra II or an equivalent class, concurrent enrollment in Selected Topics in Environmental Science and permission of the instructor

Advanced Placement Environmental Science is a college level course designed to provide students with the scientific principles, concepts and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them.

Students are required to take the AP exam associated with the two required courses. Students not taking the exam will not earn the additional quality point for either course. (24365) (24271)

Selected Topics in Environmental Science (34271)

Full year, one credit, double period

Grades 11-12

Prerequisite: Concurrent enrollment in AP Environmental Science

These topics will provide students with the opportunity to conduct extensive laboratory investigations in several areas on environmental science. Field experiences combined with laboratory research will allow the students to learn about the environment through first hand observations. Interdependence of earth systems, population dynamics, and renewable/nonrenewable resources will be covered the first semester. Environmental quality, global change, and environment and society will be covered the second semester.

This course will count as a general elective credit. In addition, design and completion of an individual or small -group research project is required.

Economics, AP (32806)

Full year, one credit, + 1.0 quality point

Grades 10-12

Prerequisite: None

This course is part of the Advanced Placement Program, which makes demands on students “equivalent to those of an introductory year in economics at the college freshman level.” Students enrolled in this course will take a semester of Macro Economics which focuses on a thorough understanding of the principles of economics that apply to an economic system as a whole. In addition, students will take a semester of Micro Economics which focuses on the principles of economics that apply to the functions of individual decision makers, both consumers and producers within the economic system.

Students are required to take the two AP exam associated with this course. Students not taking the exams will not earn the additional quality point (22806). Successful completion of this course will meet the Economics and Personal Finance graduation requirement for students. Segments of this course will be taught online, thereby satisfying the graduation requirement for a virtual course.

AP Study Seminar (20184)

Full year, one period, no credit

Grades 11-12

Prerequisites: Students enrolled in 2 or more AP courses who are also on track to earn an advanced diploma

- Reading, Quiet Study
- Tutoring/Individual Help in AP Subject Matter
- Homework, Make-Up Work
- Study Group Formation
- AP Test Review Sessions
- PSAT/SAT Workshops
- AP Coping Workshops (e.g., time-management, organizational skills, stress management)
- College Planning Workshops

ADDITIONAL Non-AP COURSES OFFERED AT WAKEFIELD

American Civilization: English (21176) and Social Studies, Intensified (22376)

Full year, two periods, two credits (one credit in English and one credit in United States and Virginia History)

Prerequisite: None

This course is designed to parallel the literature, language, and composition study of eleventh grade English. Greater attention is given to the development of practical and fine arts, as well as the social and intellectual history of the United States. Correlations are drawn between literary and historical periods of United States history. *There are three end-of-course Standard of Learning assessment: reading, writing, and United States and Virginia History. Passing the SOL tests and the course earns two verified credits.*

Environmental Science (24365)

Full year, one credit

Grades 10-12

Prerequisite: Successful completion of Biology

This is a laboratory course. The course is designed to explore topics in both biology and environmental science in depth rather than breadth. This is an interdisciplinary course that approaches topics from not only scientific, but also, literacy, political, and historical perspectives. Some of the topics studied in this course include agriculture, food issues, sources of pollution and their effects on living things, biodiversity, conservation techniques, the energy crisis, as well as local ecological impacts.

Film Study II (21447)

One semester, one-half credit

Grades 11-12

Prerequisite: Completion of Film Study I or permission of instructor

Film Study II will continue to expand upon the concepts taught in Film Study I. Students will more completely sample the genre and sample film making as a part of understanding film viewing. In addition to practicing oral and written communication skills, Film Study II will explore director studies, actor studies, ethnic film, screenwriting, filmmaking practice, mysteries, and film noir.

World Literature (21518)

Full year, one credit

Grade 12

Prerequisite: Teacher recommendation

World Literature is designed to parallel English 12 in language and composition. Studies include extensive reading in comparative literature from Europe, Africa, Asia, South and Central America, focusing on the development of modern thought. Students initiate independent study projects to present to the class, participate in panel discussions and seminars, and write many short papers. Recommended for the highly motivated, disciplined student.

WAKEFIELD IMMERSION

The Immersion Program at Wakefield is designed to continue and expand on the study of Spanish language and culture begun in the middle school. Students are provided advanced level course work in the target language and have the option to take content area courses in Spanish. Immersion students may also complete all or part of their Senior Project in Spanish.

Spanish Immersion 9 (25511)

Full year, one credit

Grade 9

Prerequisite: Successful completion 8th grade immersion at Gunston.

Students continue developing Spanish language skills in an experiential setting. A focus on reading and writing skills prepares students for upper level Spanish courses such as AP Language and Culture as well as Spanish Literature, AP. Students relate the study of the Spanish language to experiences in other curricular areas and make interdisciplinary connections. They continue the development of cultural knowledge of the Spanish-speaking world and apply their knowledge beyond the classroom.

Spanish Immersion 10 (25521)

Full year, one credit

Grades 10-12

Prerequisite: Successful completion of Spanish Immersion 9 (25511).

Students continue their study of the Spanish language and the culture of the Spanish-speaking world with a continued emphasis on reading, grammar, writing, listening and speaking skills through the study of literature and thematic content area units. It is a continuation of the Immersion I course for those students wishing further training for eventual enrollment in the AP Language and Culture course.

ADVANCED PLACEMENT SEQUENCE

Immersion students are typically prepared for AP and advanced level Spanish courses by their sophomore or junior year, allowing them to take multiple college level classes prior to graduating.

Intensified Biology Laboratory Course-Immersion (24319)

Full year, one credit

Grade 9

Prerequisite: Enrollment in the Immersion Program

This course is designed for the capable and motivated student seeking a rigorous and comprehensive secondary science experience. Topics covered include molecular biology, cytology, genetics, cell physiology, ecology, and a survey of the biological kingdoms. Extensive laboratory technique, experimentation, and analysis are emphasized. *There is an end-of-course SOL Examination. Passing the SOL test and the course earns a verified credit.*

Economics and Personal Finance-Immersion (22211)

Full year, one credit

Grades 10-12

Prerequisite: Enrollment in the Immersion Program

The content/instruction of this course is provided in Spanish. This course explores the general scope of economics and personal finance. The course explores the American enterprise system, economic principles, economics of supply/demand, labor and industry, the Federal Reserve System, governmental fiscal policies, and the comparison of economic systems of major countries and economics philosophies to develop an understanding of the impact of global trade. Students learn the major areas in financial and investment planning, stock market, annuities, return on investments, retirement and estate planning, consumer credit and money management, budgeting, financial statements, insurance and risk management, home ownership, planning for college education, payroll taxes, consumer protection laws and financial responsibilities. ***Segments of this course will be taught online, thereby satisfying the graduation requirement for a virtual course.*** *The WISE Financial Literacy Test will be administered at the end of the course for students to earn the graduation requirement of a Career and Technical credential. The course incorporates all economics and financial literacy graduation requirements. Students may also fulfill this graduation requirement through successful completion of AP Economics. Students who successfully complete this course and a CTE course may qualify for completer status. This course may be used as a social studies, family and consumer sciences, or business credit for graduation. Consult with your guidance counselor for more information.*



THE ADVANCED PLACEMENT (AP®) NETWORK

Building Bridges to Your Student's Future

Wakefield High School, Arlington, VA - 703.228.6700 - www.apsva.us/wakefield



What Is Advanced Placement (AP®)?

The **Advanced Placement Program (AP®)**, sponsored by the College Board (i.e., “the SAT people”) offers high school students the opportunity to take **college-level courses in high school and receive credit, advanced placement, or both when they enter college.** Currently, AP® exams are offered in 36 subjects. When the Advanced Placement (AP®) Program began in 1955, 1,229 students took AP® exams. In 2015, over 2.5 million students took more than 4.5 million exams, and over 2,000 universities worldwide use the AP® Program to some extent.

What Is The Wakefield High School Advanced Placement (AP®) Network?

Stemming from *Wakefield's commitment to the notion that AP® courses are designed for prepared and not just “gifted” students*, the **Wakefield AP® Network** began as an Exemplary Project approved by the Arlington County School Board in the spring of 2004. The Wakefield Advanced Placement Network is a county - wide program meaning that students who reside in Arlington but who live outside of Wakefield's attendance zone can request an academic transfer to participate in the program.

Once enrolled at Wakefield, a student's participation in the AP Network can begin as early as ninth grade. Freshman can enroll in AP World History or other Pre-AP intensified classes that are offered in the 9th grade Foundation program. As part of their freshman experience, students work with their counselors to create a four-year academic plan. This plan is tailored to the students' strengths and areas of interest. All students are encouraged to take as rigorous a course load as possible to best prepare them for their future.

Many of these challenging courses are taught as AP courses, of which Wakefield offers 30 of the 37 AP courses authorized by the College Board. As one of the first public high schools in the United States to open enrollment in AP courses to all students, Wakefield recognized the need to support students as they took on the academic and personal challenges that these courses present. The AP Network was created to provide this support and continues to do so through a variety of academic and counseling initiatives, including the following:

- The **Wakefield AP Summer Bridge Program** – a 3-day series of workshops and class sessions for AP students to attend in August to better prepare them for AP courses they will be taking in the coming school year.
- **AP Study Seminar** -a class that meets every day during 3rd period to provide students with access to AP content teachers and time to complete their AP assignments.
- Collaboration with **Wakefield's Cohort for Minority Males** and **United Minority Girls programs** to address the achievement gap between white and non-white students.
- Faculty participation in AP vertical team training and AP content course training at College Board-sponsored events.
- Faculty identification and recruitment of students, Grades 8 through 12, who have the potential to succeed in advanced, intensified, and AP level courses.
- Faculty-conducted workshops and evening presentations that explain the advantages of intensified and AP classes.

The International Baccalaureate Program at Washington-Lee High School

The International Baccalaureate (IB) program is an internationally recognized program of studies available at Washington-Lee to highly motivated 11th and 12th grade students. This program provides the rigor, the structure, and the experience necessary to challenge academically talented and motivated students. The IB program comprises a holistic philosophy of learning that seeks to address the intellectual, philosophical, and social development of the student.



The IB is a two-year program of studies across the disciplines. The components of the program are as follows:

- *Successful completion of six academic courses in different subject areas*
- *Completion of an external examination in each area*
- *Participation in CAS (Creativity, Activity, and Service)*
- *Enrollment in the Theory of Knowledge course*
- *The writing and submission of an Extended Essay in an area of interest to the student*

The International Baccalaureate Organization of Geneva, Switzerland awards an IB Diploma to students who complete all of the above components and perform successfully on the six external examinations. Frequently, the diploma serves as an academic passport to universities around the world. Many U.S. colleges and universities have also extended official recognition to the diploma and/or to the subject certificates earned in the partial fulfillment of it. (A complete listing of such recognition policies is available from the guidance department and the IB Coordinator or by Internet at www.ibo.org/) Students may choose to select certain IB courses without earning the full IB Diploma. Students who earn an IB diploma are also considered to have met the requirements for an Advanced Studies Diploma. Otherwise, see page 10 for requirements for earning an Advanced Studies Diploma. The prerequisites for all courses are listed in this addendum to the Program of Studies.

COMPONENTS OF THE IB DIPLOMA PROGRAM

Areas of study are grouped according to the following:

- Group 1: Studies in Language and Literature - English Literature A and Spanish Language and Literature A
- Group 2: Language Acquisition - Mandarin Chinese B, French B, Latin, Spanish B, and Arabic
- Group 3: Individuals and Societies - Business and Management, Economics, Geography, History of the Americas, Topics in Twentieth Century World History, Information Technology in a Global Society, Philosophy, Psychology, and Social Anthropology
- Group 4: Experimental Sciences - Biology, Chemistry, Computer Science, Design Technology, Environmental Systems and Societies, Physics, Sports, Exercise, and Health Science
- Group 5: Mathematics - Math Studies and Mathematics
- Group 6: The Arts – Film, Music, Theatre Arts, and Visual Arts
- The core: Theory of Knowledge, Extended Essay, and CAS (Creativity, Activity, and Service)

The IB Learner Profile

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet help to create a better and more peaceful world.

IB learners strive to be:

Inquirers	They develop their natural curiosity. They acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives.
Knowledgeable	They explore concepts, ideas and issues that have local and global significance. In so doing, they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.
Thinkers	They exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.
Communicators	They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willingly in collaboration with others.
Principled	They act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of the individual, groups and communities. They take responsibility for their own actions and the consequences that accompany them.
Open-minded	They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.
Caring	They show empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.
Risk-takers	They approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs.
Balanced	They understand the importance of intellectual, physical and emotional balance to achieve personal well-being for themselves and others.
Reflective	They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.

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Washington-Lee High School International Baccalaureate Curriculum

IB Group	Grade 9	Grade 10	Grade 11	Grade 12
Group 1 Language A	English 9*	English 10* AP Spanish Fluent Speakers	IB English Literature HL part 1 IB Spanish Language and Literature HL (Fluent Speakers - bilingual diploma) part 1	IB English Literature HL part 2 IB Spanish Language and Literature HL (Fluent Speakers - bilingual diploma) part 2
Group 2 Language Acquisition	Spanish III or FS II French III Chinese III Latin III	Spanish IV or FS III French IV Chinese IV Latin IV	IB Spanish B SL/HL part 1 IB French SL/HL part 1 IB Mandarin/Chinese SL part 1 IB Latin SL/HL part 1 IB Arabic SL part 1	IB Spanish B SL/HL part 2 IB French SL/HL part 2 IB Mandarin /Chinese SL part 2 IB Latin SL/HL part 2 IB Arabic SL part 2
Group 3 Individuals and Societies	World History**	AP Government for Sophomores	IB History of the Americas HL part 1 AP US History	IB Topics in 20 th Century World History HL part 2 or Group 3 elective
Group 4 Experiential Sciences	Biology*	Chemistry*	IB Physics SL part 1 IB Biology SL (one year) or HL part 1 IB Chemistry HL part 1 IB Computer Science HL part 1 IB Sports, Exercise & Health Science SL part 1 IB Design Technology SL part 1 IB Environmental Systems SL (one year, double block)	IB Physics SL part 2 IB Biology HL part 2 IB Chemistry HL part 2 IB Computer Science HL part 2 IB Sports, Exercise & Health Science SL part 2 IB Design Technology SL part 2 IB Environmental Systems SL (one year, double block)
Group 5 Mathematics	Geometry* or Algebra II*	Algebra II* or IB Mathematics SL part 1 (accelerated)	Math Analysis/Trigonometry IB Mathematics SL part 1 (Pre-calculus) IB Mathematics SL part 2 / HL part 1 (BC Calc)	IB Math Studies SL (one year) IB Mathematics SL part 2 (AB or BC Calculus) IB Mathematics HL part 2
Group 6 and Electives	Elective	Elective	IB Music SL (one year) IB Theatre SL (one year) or Theatre HL part 1 IB Visual Arts SL (one year) or Visual Arts HL part 1 IB Film SL/HL part 1 IB Business and Management SL, IB Economics SL, IB Geography SL, IB ITGS SL, IB Philosophy SL, IB Psychology SL or IB Social Anthropology SL (all one year) IB Psychology HL part 1 IB Social Anthropology HL part 1 or elective	IB Music SL (one year) IB Theatre SL (one year) or Theatre HL part 2 IB Visual Arts SL (one year) or Visual Arts HL part 2 IB Film SL/HL part 2 IB Business and Management SL, IB Economics SL, IB Geography SL, IB ITGS SL, IB Philosophy SL, IB Psychology SL or IB Social Anthropology SL (all one year) IB Psychology HL part 2 IB Social Anthropology HL part 2 or elective
Other	Health/PE I	Health PE II	Elective/Generals Period	Elective/Generals Period /TOK

Note: *Intensified recommended. ** Intensified or AP recommended. HL means Higher Level and requires a minimum of 240 hours of instruction. All HL courses are taught over two years. SL means Standard Level and requires a minimum of 150 hours of instruction. Full IB diploma students must take one subject from each subject group. A student may earn a bilingual diploma by taking two group 1 subjects. Students may take up to two SL exams at the end of their junior year. Specific schedules in Grades 11 and 12 will reflect each student's personal options.

CREATIVITY, ACTIVITY, SERVICE, PROGRAM

While the Creativity and Activity component of CAS can be largely met through curricular and extra-curricular programs, the Service component is the responsibility of the student. Each diploma candidate must complete approximately 150 hours, at least 50 of which should be community service, during the last two years (and summer) of high school. The services may be rendered individually or in groups. Information about service opportunities is available from the CAS Supervisor or the IB Office at W-L. The candidate must submit plans for these important projects to the CAS Supervisor for approval prior to undertaking them.

THEORY OF KNOWLEDGE

The interdisciplinary Theory of Knowledge (TOK) course is designed to provide coherence by exploring the nature of knowledge across disciplines, encouraging an appreciation of other perspectives.

EXTENDED ESSAY

The extended essay (about 4,000) words, is defined as an in-depth study of a limited topic chosen from one of the six groups of the IB curriculum. It is designed to provide the candidate the opportunity to engage in independent research. Students are encouraged to pursue an area of special interest to them. In the second semester of the junior year, the student decides on a topic and seeks the sponsorship of a faculty mentor. Students are expected to begin work on the project during the junior year and continue during the following summer under the supervision of a mentor. The mentor and student will create a timetable for the essay's completion, which takes into account the rising senior's academic load, college application process and other time constraints. The extended essay is submitted at the end of the first semester of the senior year.

INTERNATIONAL BACCALAUREATE COURSE OFFERINGS

Group 1

Language A

IB English Literature (HL)	Part I (31197)	Two years, two credits (+ 1.0 quality point each year upon completion of both years)
	Part II (31198)	

Grades 11 - 12

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisite: English 10 Intensified or recommendation of the Instructor

The IB English Literature HL course is a two-year course of study, which meets the requirements of the IB program as well as those of the State of Virginia and the Arlington Public Schools. Within the context of the IB English Literature HL course, students focus on the study of literature according to the prescribed IB guidelines. At the same time, students develop their creative and critical thinking abilities, increasing the skills and knowledge necessary for contributing world citizens and life-long learners. *This course prepares students for the required High Level IB examination in English to be taken at the end of the senior year. Students not taking the exam will not earn the additional quality point (21197) (21198).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course. Successful completion of this course and an additional Language A course qualifies the student for a Bilingual IB Diploma. *There is a SOL examination at the end of Part I. Passing the SOL test plus the course earns a verified credit.*

IB Spanish Language and Literature (HL) Part I (35577) Two years, two credits
Part II (35587) (+ 1.0 quality point each year
upon completion of both years)

Grades 11-12

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisite: Spanish for Fluent Speakers IV AP and teacher recommendation

The IB Spanish Language and Literature HL course is a two-year course of study which meets the requirements of the IB program. Within the context of the IB Spanish Language and Literature HL course, students focus on the study of language and literature according to the prescribed IB guidelines. At the same time, students further develop their creative and critical thinking abilities, increasing skills and knowledge necessary for them to be contributing world citizens and life-long learners. This course prepares students for the required High Level IB examination in Spanish to be taken at the end of the senior year. *Students not taking the exam will not earn the additional quality point (25577) (25587).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course. Successful completion of this course and an additional Language A course qualifies the student for a Bilingual IB Diploma.

Group 2

Language B

IB Arabic (SL) Part I (35841) Two years, two credits
Part II (35845) (+1.0 quality point each year
upon completion of both years)

Grades 11-12

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisites: Arabic level IV and teacher recommendation

The IB Arabic course is a two-year course of study which meets the requirements of the IB program. The main focus of this course is on language acquisition and development of language skills. These language skills are developed through the study and use of a range of written and spoken material. Such material will extend from the everyday oral exchanges to literary texts. Thematic units include a variety of topics such as communication and media, global issues, social relationships, cultural diversity, customs and traditions, health, leisure, science and technology, as well as literary study. *This course prepares students for the required standard level IB examination in Arabic, which will be taken at the end of the 6th year of the language study. Students not taking the exam will not earn the additional quality point (25841) (25845).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course.

IB Mandarin Chinese (SL) Part I (35815) Two years, two credits
Part II (35825) (+1.0 quality point each year
upon completion of both years)

Grades 11-12

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisites: Chinese level IV and teacher recommendation

The IB Mandarin Chinese course is a two-year course of study which meets the requirements of the IB program. The main focus of this course is on language acquisition and development of language skills. These language skills are developed through the study and use of a range of written and spoken material. Such material will extend from the everyday oral exchanges to literary texts. Thematic units include a variety of topics such as communication and media, global issues, social relationships, cultural diversity, customs and traditions, health, leisure, science and technology, as well as literary study. *This course prepares students for the required standard level IB examination in Mandarin Chinese, which will be taken at the end of the 6th year of the language study. Students not taking the exam will not earn the additional quality point (25815) (25825).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course.

Group 3

Individuals and Societies

IB Business and Management SL (36114)

Full year, one credit

Grade 11 or 12

(1.0 quality point)

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisite: B average in previous math and science courses

This course is designed to provide a rigorous and critical study of the ways in which individuals and groups interact in a dynamic business environment. It examines how business decisions are made, how these decisions make an impact on internal and external environments, and how these decisions foster international cooperation and responsible citizenship. The cooperative education method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision through the school year. *This course prepares students for the required Standard Level IB examination in Business and Management at the end of the course of study. Students not taking the exam will not earn the additional quality point (26114).* This course earns a Career and Technical/Fine Arts credit.

IB Economics (SL) (32802)

Full year, one credit

Grade 11 or 12

(+1.0 quality point)

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisite: Written recommendation of the previous social studies teacher or permission of the Instructor

Economics is a dynamic social science that looks at how and why resources are distributed the way they are. It combines elements of history, geography, psychology, sociology, politics, math, and science into an interesting and relevant study of how individuals, organizations, and nations organize themselves in pursuit of economic objectives. The focus of the class will be on applying theories to practical, real world problems. Major topic areas include microeconomics, macroeconomics, international trade, and economic development. A number of the issues to be considered are: Should taxes be raised or lowered? Does a trade deficit matter? Is it possible to reduce unemployment? Can a future government afford to pay social security and should it put a price tag on the environment? What are the arguments for the cancellation of developing countries' debt? Should Britain adopt the Euro? Should the U. S. continue in NAFTA? *This course prepares students for the required Standard Level IB examination in Economics at the end of the course of study. Successful completion of this course will meet the Economics and Personal Finance graduation requirement. Segments of this course will be taught online, thereby satisfying the graduation requirement for a virtual course. Students not taking the examination will not earn the additional quality point. (22802).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course.

IB Geography (SL) (32210)

Full year, one credit

Grades 11 and 12

(+1.0 quality point)

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisites: Recommendation from the Social Studies Teacher or IB Coordinator

This course is thematic in organization, human in focus, and comprehensive in coverage. At its core are the interrelated themes of population, resources and development including economic and quality of life principles. Accompanying the core is a series of options in physical geography, each stressing issues of human management and response. Strongly skill oriented, and highlighting the distinctive use of mapping and similar techniques by geographers, the options seek to integrate the human and physical aspects of the subject through topographical maps, other maps and images. *This course prepares students for the required standard level IB examination in Geography at the end of the course study. Students not taking the exam will not earn the additional quality point (22210).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course.

**IB History of the Americas (HL)
Part 1 (32385) Grade 11**

**Full year, one credit
(+ 1.0 quality point upon completion of
both years and HL IB examination)**

Open to all Grade 11 W-L students who meet the prerequisites.

Prerequisites: World History (Intensified recommended) & Completion of United States. and Virginia Government. Before the 11th grade. (AP Government. for sophomores recommended)

History of the Americas provides students with an in-depth thematic study of the Americas. This course introduces students to history as a discipline, and helps students understand the processes of historical inquiry. History of the Americas is a detailed study of the political, social, economic, and cultural history of the nations of the Americas, with emphasis placed on the history of the United States. Students are introduced to history as part science in its approach to evidence and part art in recording and communicating its findings. History is the attempt made by professional historians to record and reconstruct the past through the study of evidence derived from a variety of sources. It is concerned with individuals and societies in the widest context: political, social, economic, and cultural. Students understand the nature of history and are able to manipulate primary sources to interpret and make sense of the historical record. *This course, along with Topics in Twentieth Century World History, satisfies the Virginia State requirement in American History and prepares students for the required High Level IB examination in History taken at the end of the senior year. Students not taking the exam will not earn the additional quality point (22385).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course.

Students choosing not to continue on to Topics in Twentieth Century World History, who have passed the History of the Americas course and the US/VA SOL exam will receive credit for US/VA History if they have completed the Internal Assessment and all of the requirements of the course; however, they will forfeit the quality point and their transcript will be changed to read US and Virginia History (regular).

**IB Topics in 20th Century World History (HL)
Part 2 (32386) Grade 12**

**Full year, one credit
(+1.0 quality point upon completion of
both years and HL IB Examination)**

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisite: IB History of the Americas (HL) Part 1

This course gives students an opportunity to study selected topics in Twentieth Century World History while concentrating on the History of the Americas as the regional emphasis. Major events and issues of Twentieth Century history as they happened and/or influenced the Americas are explored through the study of individual case histories. *This course along with History of the Americas, satisfies the Virginia State requirement in American History and prepares students for the required High Level IB examination in history to be taken at the end of the senior year. Students not taking the exam will not earn the additional quality point (22386).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course.

**IB Information Technology in a Global Society (SL) (36613) Full year, one credit
Grade 11 or 12 (+1.0 quality point)**

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisite: None

The Diploma Programme Information Technology in a Global Society (ITGS) course is the study and evaluation of the impact of information technology (IT) on individuals and society. It explores the advantages and disadvantages of the use of digitized information at the local and global level. ITGS provides a framework for the student to make informed judgments and decisions about the use of IT. *This course prepares students for the required Standard Level IB examination in ITGS at the end of the course of study. Students not taking the exam will not earn the additional quality point (26616).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course.

IB Philosophy (SL) (32600)**Grade 11 or 12****Full year, one credit****(+1.0 quality point)****Open to all Grade 11 and 12 W-L students who meet the prerequisites.***Prerequisite: Written recommendation of the previous social studies teacher or permission of the Instructor*

The IB Philosophy course is a one-year course of study which meets the requirements of the IB program. Students will investigate fundamental questions about human existence: What am I? What am I here for? What is happiness? What is the meaning of life? Does life have a meaning? Do human beings have a responsibility towards the environment? Should we always obey the law, even if we believe it is a bad law? Students will be expected to show their understanding of philosophical statements and texts, to develop an argumentative strategy, to achieve sensitivity to the plurality of philosophical traditions, and to use concise, appropriate and coherent language in such a way that the intended meaning is clearly conveyed. *This course prepares the students for the required Standard Level IB examination in Philosophy at the end of the course of study. Students not taking the exam will not earn the additional quality point (22600).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course.

IB Psychology (SL) (32901)**Grade 11 or 12****Full year, one credit****(+1.0 quality point)****Open to all Grade 11 and 12 W-L students who meet the prerequisites.***Prerequisite: Written recommendation of the previous social studies teacher or permission of the Instructor*

This IB Psychology course is a one-year course of study which meets the requirements of the IB program. After studying the IB psychology program at Standard level, students will be able to describe, compare, contrast and evaluate the key ideas of the three major perspectives of psychology: biological, cognitive, and the learning perspective. Students are required to complete one scientific experiment which leads to a research paper of 2000-3000 words. Students will develop critical thinking skills and gain knowledge necessary for contributing world citizens and lifelong learners. This course prepares students for the required standard level examination in Psychology at the end of the course of study. *Students not taking the exam will not earn the additional quality point (22901).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course.

**IB Psychology (HL) Part I (32903)
Part II (32904)****Two years, two credits****(+1.0 quality point each year
upon completion of both years)****Open to all Grade 11 and 12 W-L students who meet the prerequisites.***Prerequisite: Written recommendation of the previous social studies teacher or permission of the Instructor*

The IB Psychology course is a two-year course of study which meets the aims of the IB program. Students will study all four Psychological Perspectives: Biological, Cognitive, Humanistic and the Learning Perspectives. Students will also study two optional subject areas and undertake three research studies: an experimental study, a survey and an observational study. This course prepares students for the required High Level examination in Psychology at the end of the course of study. *Students not taking the exam will not earn the additional quality point (22903) (22904).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the two-year course. This course earns 2 social studies credits.

IB Social Anthropology (SL) (32372)**Grade 11 or 12****Full year, one credit****(+1.0 quality point)****Open to all Grade 11 and 12 W-L students who meet the prerequisites.***Prerequisite: Written recommendation of the previous or social studies teacher or permission of the Instructor*

IB Social Anthropology, a one-year course that meets the requirements of the IB program, is the comparative study of culture and society with a focus on ordinary people. Students explore the general principles of social and cultural life and apply these principles to specific societies and cultures. The course uses both a local and global perspective and is concerned with urban and rural society. Among subjects of inquiry are kinship relations, symbolism, language, ethnicity, gender and power relations. Social Anthropology contributes to the understanding of such critical contemporary issues as war and conflict, the environment, poverty, injustice, inequality and human rights. *This course prepares students for the required Standard Level IB examination in*

Social Anthropology at the end of the course of study. Students not taking the exam will not earn the additional quality point (22372). This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course.

**IB Social Anthropology (HL) Part I (32375)
Part II (32377)**

**Two years, two credits
(+ 1.0 quality point each year
upon completion of both years)**

Grades 11 and 12

Prerequisite: Written recommendation of the previous social studies teacher or permission of the Instructor

IB Higher Level Social Anthropology is a two-year course of study which meets the requirements of the IB program. Social and cultural anthropology is the comparative study of culture and human societies. Students explore the general principals of social and cultural life and apply these principles to specific societies and cultures. Topics of anthropological inquiry include social change, kinship, symbolism, exchange, belief systems, ethnicity and power relations. Social and cultural anthropology examines urban as well as rural society and modern nation states. Anthropology contributes to an understanding of contemporary issues such as war and conflict, the environment, poverty, injustice, inequality, and human and cultural rights. Higher Level students will study an additional part of the syllabus, theoretical perspectives in anthropology. Students are expected to incorporate a theoretical framework in their responses to paper 1 (questions 2 and 3), paper 2 and paper 3 questions. Higher Level students will conduct and report a field study, whereas SL students conduct, report and critique an observation. *This course prepares students for the required Higher Level examination in Social Anthropology at the end of the course of study. Students not taking the exam will not earn the additional quality point (22374) (22377). This IB course is weighted by applying an additional 1.0-point value assigned to the final grade upon completion of the two-year course.*

Group 4

Experimental Sciences

**IB Biology SL (34378)
Grade 11 or 12**

**Full year, one credit
(1.0 quality point)**

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisite: Biology I and Chemistry

This course will include a study of cells, molecular biology, genetics, ecology, evolution and biodiversity, and human physiology. In addition to this, SL students study two out of a choice of seven option topics. Emphasis will be placed on critical thinking and understanding of scientific theories as well as experimentation. This course prepares students for the required Standard Level IB examination in Biology to be taken at the end of the course of study. Students not taking the exam will not earn the additional quality point (24378). This IB course is weighted by applying 1.0 quality point value assigned to the final grade upon completion of the course.

**IB Biology (HL) Part I (34376)
Part II (34377)**

**Two years, two credits
(+1.0 quality point each year
upon completion of both years)**

**Laboratory Class
Grades 11 - 12**

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisite: Biology I and Chemistry

IB Biology HL is an investigation-based science class that studies life at its varied levels, with an emphasis on written communications. Living systems are explored from the molecular level to the global level, including the biochemical processes for life, cellular structure and function, homeostasis, genetics and genetic engineering, evolution, taxonomy and comparative anatomy, reproduction and development, environment and ecosystems, population studies and the structure and function of human systems. Labs and an independent research project are required for this class. Using the first year as its foundation, the second year provides a greater in-depth study and application of the principles presented in Part I. Living systems continue to be explored from the molecular level to the global level. Investigations for the second year of the two-year course cover the biochemical processes for life, homeostasis, plant biology, evolution, taxonomy and comparative anatomy,

reproduction and development, and the structure and function of human systems. Formal lab reports, to include statistical analysis and independent research, are required for this course. *This course prepares students for the required Higher Level IB examination in Biology to be taken at the end of the senior year. Students not taking the exam will not earn the additional quality point (24375).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course and exam.

**IB Chemistry (HL) Part I (34476)
Part II (34477)**

**Two years, two credits
(+1.0 quality point each year
upon completion of both years)**

**Laboratory Class
Grades 11 - 12**

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisites: Grade of B or better in regular or Intensified Chemistry; Grade of B or better in Algebra II or equivalent and/or permission of the Instructor. Completion of the summer assignment by the beginning of Part I. Chemistry, the central science, is an experimental science that combines academic study with the acquisition of practical and investigational skills. This course is a two year course of study which meets the aims of the IB program. It is designed for highly disciplined and curious students to provide them with ample opportunities to develop experimental skills and to analyze and evaluate scientific information. Topics of study include atomic theory, periodicity, bonding, energetics, kinetics, equilibrium, acids and bases, electrochemistry, organic chemistry, quantitative chemistry and data processing. This course will include two additional topics such as Medicine and Drugs, Analytical Chemistry, Environmental Chemistry, Industrial Chemistry, Human Biochemistry, Food Chemistry or Further Organic Chemistry. Students are required to carry out an interdisciplinary Group 4 Project and an independent research project. During Part 2 of IB Chemistry (HL), students will study additional higher level material on each of the chemistry topics and complete the International Baccalaureate Organization requirements. *The two parts of this course prepare the student for the required High Level IB examination in Chemistry, which is taken at the end of the senior year. Students not taking the exam will not earn the additional quality point (24475).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course and the IB Chemistry exam. Students not taking the exam will not earn the additional quality point.

**IB Computer Science (HL) Part I (36560)
Grades 11 - 12 Part II (36570)**

**Two years, two credits
(+ 1.0 quality point each year
upon completion of both years)**

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisite: Completion of Algebra II with a grade of B or better before the junior year

IB Computer Science is a two-year course designed to cover the beginning college level curriculum (CSI and CS2) recommended by the Association for Computer Machinery (ACM) and other societies in the American Federation of Information Processing Societies (AFIPS). The computer programming language Java is used to explore the curriculum. *This course prepares students for the required High Level IB examination in Computer Science to be taken at the end of the senior year. Students not taking the exam will not earn the additional quality point (26560) (26570).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the two-year course of study. This course earns a Career and Technical/Fine Arts credit. *Segments of this course will be taught online, thereby satisfying the graduation requirement for a virtual course.*

**IB Design Technology (SL) Part I (38496)
Part II (38497)**

**Two years, two credits
(+ 1.0 quality point each year
upon completion of both years)**

Grades 11 and 12

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

To design can be defined as “to conceive a mental plan for something.” Design consists of gathering information about the world around us, processing that information, and developing a plan to modify what is already there or introducing something new. The designer must be knowledgeable on material environment and also have an understanding of the political, social, and economic impact, which affect people’s priorities. Design technology is based on a model of learning which incorporates knowledge, skills, and design principles in problem solving

contexts, while at the same time, maximizing the use of local and readily available resources. It assumes no previous experience in either design technology or designing. The design cycle is at the core of the course and it is expected that students will use this process in the practical investigative work as well as theory. Students will be required to complete a design project, practical activities, and a logbook. This course prepares students for the required standard level IB examination in Design Technology. Students not taking the exam will not earn the additional quality point (28496) (28497). This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the two-year course of study.

IB Environmental Systems and Societies (SL) (34275)
Laboratory Course
Grade 11 or 12

Full year, double block period, two credits
(+1.0 quality point)

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisites: B average in previous science courses, teacher recommendation and permission of the Instructor
The Environmental Systems and Societies course is a transdisciplinary (groups 3 and 4) Standard Level course. The purpose of this course is to provide students with a coherent perspective of the interrelationships between environmental systems and societies. Topics of study include systems and models, the ecosystem, human population, carrying capacity and resource use, conservation and biodiversity, pollution management, the issue of global warming, and environmental value systems. This course seeks to promote an understanding of environmental processes at a variety of scales, from local to global, provide a body of knowledge, methodologies and skills that can be used in the analysis of environmental issues at local and global levels, and enable students to apply the knowledge, methodologies and skills gained. Because the course is transdisciplinary it offers students requirements for both hexagon groups 3 and 4, leaving students the opportunity to study another subject from any group of hexagon including another subject from groups 3 or 4. *This course prepares students for the required Standard Level IB examination in Environmental Systems and Societies, which is taken at the end of the course of study. Students not taking the exam will not earn the additional quality point (24275).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course.

IB Physics (SL)
Part I (34576)
Part II (34577)
Laboratory Class
Grades 11 - 12

Two years, two credits
(+1.0 quality point each year
upon completion of both years)

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisite: Algebra II with a grade of B or better, or Algebra II, Intensified with a grade of C or better
Physics, the fundamental science on which all the other sciences are based, is designed to enable students to recognize the mathematical expression of the physical world around them - physics is the mathematical description of the universe. This course is a two-year course of study that meets the aims of the IBO program. Through the use of all mathematics studied throughout their school careers, students investigate such core topics as classical mechanics, thermal physics, electricity and magnetism, wave and simple harmonic motion (including sound and light), atomic and nuclear physics, and relativity. The course will conclude with two optional topics, wave phenomena and astrophysics, which will require considerable use of the core topics to complete. IB Physics emphasizes the use of laboratory experiences, the collection and interpretation of data, and their presentation, to develop mathematical models of physical systems. Students are required to carry out an interdisciplinary Group 4 Project in conjunction with other IB Sciences classes at W-L. IB Physics students will take a comprehensive exam at the end of Year 1 over the core topics completed. *In May of Year 2, students will take the required Standard Level IB examination in Physics given to students worldwide. Students not taking the exam will not earn the additional quality point (24575).* This course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course.

IB Sports, Exercise and Health Science (SL)**Part I (38055)****Part II (38057)****Grades 11 - 12****Two years, two credits****(+1.0 quality point each year
upon completion of both years)****Open to all Grade 11 and 12 W-L students who meet the prerequisites.***Prerequisites: B average in previous science courses and/or teacher recommendation*

IB Sports, Exercise and Health Science SL incorporates the traditional disciplines of anatomy and physiology, biomechanics, psychology and nutrition, which are studied in the context of sport, exercise and health. Students will cover a range of core and option topics and carry out practical (experimental) investigations in both laboratory and field settings. This will provide an opportunity to acquire the knowledge and understanding necessary to apply scientific principles and critically analyze human performance. Where relevant, the course will address issues of internationalism and ethics by considering sport, exercise and health relative to the individual and in a global context. *This course prepares students for the required Standard Level IB examination in Sports, Exercise, and Health Science, which is taken at the end of the course of study. Students not taking the exam will not earn the additional quality point (28055) (28057).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the grade upon completion of the course.

Group 5**Mathematics****IB Mathematical Studies (SL) (33170)****Grade 11 or 12****Full year, one credit****(+1.0 quality point)****Open to all Grade 11 and 12 W-L students who meet the prerequisites***Prerequisites: Algebra I, Geometry, Algebra II and Math Analysis or teacher recommendation and a grade point average of B or better in previous math courses*

IB Mathematical Studies is a course designed to allow students to study and investigate the following mathematical topics: number theory and algebra, sets and logic, geometry and trigonometry, statistics and probability, functions, and financial mathematics. At least one of the following optional topics will also be discussed: mathematics and graph theory, further statistics and probability, or introductory differential calculus. In addition, an individual project must be completed by each student during the course, which involves the collection and/or generation of data, and the analysis and evaluation of that data. *This course will prepare the student for the required Standard Level IB examination in Mathematical Studies. Students not taking the exam will not earn the additional quality point (23170).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course.

IB Mathematics (SL) Part I (33171)**Grade 10 or 11****Full Year, one credit****(+1.0 quality point)****Open to all Grade 10 and 11 W-L students who meet the prerequisites***Prerequisites: Algebra I, Intensified Geometry, Algebra II, Intensified or teacher recommendation and a B cumulative average or better in previous math courses*

IB Mathematics (SL) is a course designed to allow students to study and investigate the following mathematical topics: number theory and related topics, algebra, geometry and trigonometry topics, vectors, matrices, probability, statistics, functions, and an introduction to derivatives, theory of limits and calculus. *As a required internal assessment, a portfolio will be started containing three mini projects based on assigned topics covered in class.* The portfolio will be completed next year in IB Mathematics part II (33172).

IB Mathematics (SL) Part II (33172)**Grade 11 or 12****Open to all Grade 11 and 12 W-L students who meet the prerequisites***Prerequisites: Algebra I, Intensified Geometry, Algebra II, Intensified, Math Methods I. Student must have a B cumulative average or better in previous math courses*

This course must be preceded by Mathematics part I for the student to qualify for the required IB examination in Mathematics (SL). The course content includes a study of the concepts of calculus of one variable and will cover the AP Calculus objectives as well as review for the IB Mathematics exam. The internal portfolio assessment started during Mathematics part I will be turned in for evaluation as part of the IB overall assessment. This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of this course and the *IB Mathematics exam*. *Students not taking the exam will not earn the additional quality point (23171) (23172).*

Full year, one credit**(+1.0 quality point)****IB Mathematics (HL) Part I (33181)****Part II (33182)****Grades 11 and 12****Open to all Grade 11 and 12 W-L students who meet the prerequisites.***Prerequisites: Algebra I, Intensified Geometry, Algebra II, Intensified, Precalculus or teacher recommendation and a B cumulative average or better in previous math courses*

IB Higher Level Mathematics is a rigorous, two-year course of study. The first year encompasses calculus topics, including Functions, Graph Limits & Continuity, Differential Calculus, Differential Applications, Integral Calculus, Integral Applications, and Sequences & Series. The topics assume thorough background knowledge in algebra, axiomatic geometry, trigonometry and analytic geometry. The second year of IB HL Mathematics includes topics such as Vectors, Matrices & Transformations, Complex Numbers, Probability & Statistics, Functions & Equations, Circular Functions & Trigonometry and Vector Geometry. IB HL Mathematics requires college-level performance and work habits. *A five-hour external IB examination is given at the end of the senior year that accounts for eighty percent of the grade. An internal assessment consisting of three assignments accounts for twenty percent of the grade. Students not taking the exam will not earn the additional quality point (23181) (23182).* This IB course is weighted by applying a 1.0 quality value assigned to the final grade upon completion of the course.

Two years, two credits**(+ 1.0 quality point each year****upon completion of both years)****Group 6****Arts****IB Film (SL) Part I (31144)****Part II (31145)****Grades 11 and 12****Open to all Grade 11 and 12 W-L students who meet the prerequisites.***Prerequisite: Written recommendation of the previous English teacher or permission of the instructor*

IB Film is a two-year developmental course of study that meets the requirements of the IB program. This course aims to develop students' skills so that they become adept in the clarity of understanding, critical thinking, reflective analysis, effective involvement and imaginative synthesis that is achieved through practical engagement in the art and craft of film. Through the study and analysis of film texts and exercises in filmmaking, this course provides students the opportunity to explore film history and make cross-curricular connections to the Theory of Knowledge core principles, as well as to develop and to creatively apply a range of filmmaking skills and techniques. IB Film students also develop throughout the course the ability to understand and to engage in the processes of interpreting and communicating in film language, while exploring film through personal, theoretical and cultural contexts furthering their understanding of how these contexts inform and shape filmmaking practice and reception. Students will be assessed externally by the IBO and internally by the instructor. Each accounts for fifty percent of the overall IB exam score. This course prepares students for the required Standard Level assessment at the end of the two year course of study. Students who do not complete the required assessment will not earn the additional quality point (21144) (21145). This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course. This course earns a Career and Technical/Fine Arts credit.

Two years, two credits**(+ 1.0 quality point each year****upon completion of both years)**

**IB Film (HL) Part I (31147)
Part II (31149)**

**Two years, two credits
(+ 1.0 quality point each year
upon completion of both years)**

Grades 11 and 12

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisite: Written recommendation of the previous English teacher or permission of the instructor

IB Film is a two-year developmental course of study that meets the requirements of the IB program. IV Film aims to develop students' skills so that they become adept in both interpreting and making film texts. Through the study and analysis of film texts and exercises in film-making, this course explores film history, theory and socio-economic background. All film students must research and write an Independent Study, do a Practical Project and give an oral presentation based on the close analysis of a five-minute extract from a film prescribed by the IBO. Part two of the course enables students to more fully develop creative skills, theoretical understandings and textual analysis. Part two extends on the development of the folio film. Students will be assessed externally by the IBO and internally by the instructor. Each accounts for fifty percent of the overall IB exam score. This course prepares students for the required Higher Level assessment at the of the two year course of study. Students who do not complete the required assessment will no earn the additional quality point (21147) (21149). This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course. This course earns a Career and Technical/Fine Arts credit.

IB Music (SL) (39227)

Full year, one credit

Grade 11 or 12

(+1.0 quality point)

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisite: One year of any high school music course and/or permission of the Instructor

Students must have a good working knowledge of music fundamentals and be able to read music in at least one clef to enroll in the class. They will study music of many cultures and time periods to understand fully its musical construction and societal connections. Students will compose and/or perform significant works. Supplemental private lessons are recommended but not required. Students will use M.I.D.I. computer work stations to facilitate their composition skills. *A culminating performance or demonstration of the students' compositions is required in addition to the written exam. Students not taking the exam will not earn the additional quality point (29227).* The IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course. This course earns one Fine Arts credit.

IB Theatre Arts (SL) (39141)

Full Year, one credit

Grade 11 or 12

(+1.0 quality point)

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisite: Any drama course (may include tech theatre) and/or recommendation of the Instructor

The aims of the program in Theatre Arts are to help students understand the nature of the theatre, to understand it by making it as well as by studying it, to understand it not only with their minds but with their senses, their bodies and their emotions, to understand the forms it takes in cultures other than their own and through this understanding better to understand themselves, their society and their world. The syllabus at Standard Level consists of four compulsory parts: Performance Skills, World Theatre Studies, Practical Play Analysis and Theatre Production. This course prepares students for the required Standard Level IB Assessment at the end of the course of study and consists of a research paper of 1750 words and an oral presentation (15 to 20 minutes' maximum) and a Portfolio of approximately 3000 words reflecting on the candidate's learning and development in Theatre Arts. *Students who do not complete the assessment will not earn the additional quality point (29141).* This course is weighted by applying an additional 1.0 quality value assigned to the final grade upon completion of the course. This course earns one Fine Arts credit.

**IB Theatre Arts (HL) Part I (39142)
Part II (39143)**

**Two years, two credits
(+ 1.0 quality point each year upon
completion of both years)**

Grades 11 and 12

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisite: Any drama course (may include tech theatre) and/or recommendation of the Instructor

The aims of the program in Theatre Arts are to help students understand the nature of the theatre, to understand it by making it as well as by studying it, to understand it not only with their minds but with their senses, their bodies and their emotions, to understand the forms it takes in cultures other than their own and through this understanding better to understand themselves, their society and their world. The syllabus at the Higher Level consists of five compulsory parts: Performance Skills, World Theatre Studies, Practical Play Analysis, Theatre Production, and an Individual Project. This course prepares students for the required High Level IB assessment at the end of the two year course of study and consists of a research paper of 2500 words, an oral presentation (20-30 minutes maximum) on a practical play analysis, a portfolio of approximately 4500 words reflecting on the candidates learning and development in the theatre and an Individual Project. *Students who do not complete the assessment will not earn the additional quality point (29142) (29143).* This course is weighted by applying an additional 1.0 quality value assigned to the final grade upon completion of the course. This course earns 2 Fine Arts credits.

**IB Visual Arts (SL) (39144)
Grade 11 or 12**

**Full year, one credit
(+1.0 quality point)**

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisite: Art 1 or permission of the Instructor

Students engage in advanced research of art processes, aesthetic issues, art criticism, and art history and culture. They exhibit in verbal, written and graphic forms how their research has led them to an understanding of selected topics. A research workbook which evidences critical research in an area agreed upon by the teacher and the student is required. *There is an internal assessment; in addition, the student must prepare an exhibition to be assessed externally. Students who do not exhibit will not earn the additional quality point (29144).* This IB course is weighted by applying an additional 1.0 quality value assigned to the final grade upon completion of the course. This course earns a fine arts credit.

**IB Visual Arts (HL) Part I (39146)
Part II (39148)**

**Two years, two credits
(+ 1.0 quality point each year
upon completion of both years)**

Grades 11 and 12

Open to all Grade 11 and 12 W-L students who meet the prerequisites.

Prerequisites: Permission of the Instructor upon evaluation and examination of a body of work which demonstrates ability commensurate with IB expectations

This course is a 240 hour (two years or equivalent) course of study which includes as one-half of its requirement, maintaining a research workbook which evidences critical research in an area agreed upon by the teacher and the student. The other half of the course is the production in studio of a body of work using various mediums and techniques. At the culmination of this 240-hour course of study, a display or exhibit is required. Students wishing continuity in their IB Art program need to understand that this is a two-year commitment. The sketch book/journal and studio art are interrelated in this course. *There is an internal assessment as well as a required externally assessed exhibition of work. Students who do not exhibit will not earn the additional quality point (29146) (29145).* This IB course is weighted by applying an additional 1.0 quality value assigned to the final grade upon completion of the course. This course earns Fine Arts credit.

ADDITIONAL IB DIPLOMA REQUIREMENT

Theory of Knowledge (22605)

Full year, one credit

Grade 12

Open to all Grade 12 W-L students who meet the prerequisites.

Prerequisites: Diploma candidates: None. Non - IB students must have the permission of the Instructor

The Theory of Knowledge (TOK) course is the key element in the educational philosophy of the IB. Its purpose is to stimulate critical reflection upon the knowledge and experiences acquired both inside and outside the classroom, to evaluate the bases of knowledge and experience, and to develop a personal mode of thought based on critical examination of evidence and argument. Unlike other IB courses, Theory of Knowledge is not assessed by external examination. Course grades are determined by the teacher and include a variety of internal assessments.

ADDITIONAL Non-AP COURSES OFFERED AT WASHINGTON-LEE

Environmental Science (24365)

Full year, one credit

Grades 10-12

Prerequisite: Successful completion of Biology

This is a laboratory course. The course is designed to explore topics in both biology and environmental science in depth rather than breadth. This is an interdisciplinary course that approaches topics from not only scientific, but also, literacy, political, and historical perspectives. Some of the topics studied in this course include agriculture, food issues, sources of pollution and their effects on living things, biodiversity, conservation techniques, the energy crisis, as well as local ecological impacts.

Geospatial Tools and Techniques (98423W)

Full year, one credit, + 1.0 quality point

Grades 11 and 12

Prerequisite: none

This course is part of the James Madison University Geospatial Semester program and provides students with a research experience applying geospatial technologies, such as geographic information systems (GIS), global positions systems (GPS), and remote sensing to a problem of interest. This course will allow students to design and execute an extended research project. Students will work to identify a problem of interest, define the stakeholders for the problem, evaluate the data and geospatial tools needed to solve the problem, analyze the data, and propose and communicate possible solutions to stakeholders.

- **College credit:** *This course is dual-enrolled at James Madison University (JMU) as Geog 161 for a total of 6 credits at JMU pending successful completion of the course. The content of this course is taught at the college level. Please consult with your counselor for more details.*

ADDITIONAL Non-AP COURSES OFFERED AT YORKTOWN

American Civilization: American History (22375) and Literature (21175)

Full year, two periods, two credits (one credit in United States and Virginia History and one credit in English)

Grade 11

Prerequisite: None

This course parallels the literature, language, and composition study of 11th grade English. Students collaborate to recognize interconnections between and among various historical aspects of American society and relate them to experiences in the present. Students will demonstrate their knowledge of a general chronology of American history and its relation to literature, art, music, science, mathematics, economics, politics, religion, and philosophy. *There is an end-of-course SOL Examination. Passing the United States and Virginia History Standard of Learning Assessment and the course earns a verified credit.*

Chemistry, Principles of (24400) Laboratory course

Full year, one credit

Grades 10-12

Prerequisite: None

The primary goal is to acquaint students with those aspects of chemistry relevant to everyday life. Classroom activities and laboratory experiments are emphasized. *There is an end-of-course SOL Examination. Passing the SOL test and the course earns a verified credit.*

English 9 and World History and Geography: 1500 AD to the Present

Full year, two credits, two periods (21130 and 22216)

Prerequisite: None

This course offers students the opportunity to engage in an interactive and intensified study of English 9 and World History and Geography: 1500 AD to Present. Students participate in discussions, seminars, simulations, and research tied to themes in both subject areas. The class enables students to engage their peers and teachers of the course in a collaborative learning environment. *Passing the Standard of Learning assessment in World History II and the course earns a verified credit.*

Film Study II (21447)

One semester, one-half credit

Grades 11-12

Prerequisite: Completion of Film Study I or permission of Instructor

Film Study II will continue to expand upon the concepts taught in Film Study I. Students will more completely sample the genre and sample film making as a part of understanding film viewing. In addition to practicing oral and written communication skills, Film Study II will explore director studies, actor studies, ethnic film, screenwriting, filmmaking practice, mysteries, and film noir.

Intensified Environmental Science (24273)

Full year, one credit

Grades 11-12

Prerequisite: Successful completion of Biology and one other science which should include either Chemistry or Earth/Space

This course is designed for the capable and motivated student seeking a rigorous and comprehensive science experience in environmental science. This is an interdisciplinary course that approaches topics from not only scientific, but also, literacy, political, and historical perspectives. Some of the topics studied in this course include agriculture, food issues, sources of pollution and their effects on living things, biodiversity, conservation techniques, the energy crisis, as well as local ecological impacts. Laboratory technique, experimentation, and analysis are emphasized.

Latin I and II (Accelerated) (Pilot)**Full year, one credit, one period (25311)****Grades 9-12***Prerequisite: None*

In this Latin course, students are introduced to the language and life of the ancient Romans. A basic Latin vocabulary and the primary elements of grammar are learned, and students learn to read aloud with expression and enjoyment. Roman culture is introduced, especially family life, and Greek and Roman mythology. A special emphasis is placed on English word formation and vocabulary building from Latin roots. This class is an accelerated course of Latin I and II offered only to high school students wishing to continue to AP Latin in four high school years. Students will receive credit for Latin I through class time and will learn Latin II credit through a proficiency exam at the end of the year. Should a student not meet the benchmark for Latin II, (s)he will move into the Latin II class rather than Latin III.

SOAR (Success, Opportunity and Results) (20152)**Full year, one credit****Grade 9***Prerequisite: Past academic achievement and/or scores at the 80% percentile or above on various tests administered in middle school, middle school recommendation*

SOAR is a unique program designed for a selected group of minority Grade 9 students. The SOAR class is a supportive environment with a foundation of empowerment, achievement, independence, involvement and respect. SOAR curriculum reinforces study skills, organizational strategies, critical thinking, and leadership skills.

Standard Biology (24312) Laboratory course**Full year, one credit****Grades 9-12***Prerequisite: None*

This course consists of a study of the cell, plants, animals, and human biology. Students work both independently and cooperatively on laboratory investigations and textbook materials. *There is an end-of-course SOL Examination. Passing the SOL test and the course earns a verified credit.*

World Literature (21518)**Full year, one credit****Grade 12***Prerequisite: Teacher recommendation*

World Literature is designed to parallel English 12 in language and composition. Studies include extensive reading in comparative literature from Europe, Africa, Asia, South and Central America, focusing on the development of modern thought. Students initiate independent study projects to present to the class, participate in panel discussions and seminars, and write many short papers. *Recommended for the highly motivated, disciplined student.*

Intermediate Band (29233) and Advanced Band (29234)

A lab fee of \$10 will be charged to percussionists. *See page 17 for fee reduction/waiver information.*

ADDITIONAL ADVANCED PLACEMENT COURSES OFFERED AT YORKTOWN

Economics, AP (32806)

Full year, one credit, + 1.0 quality point

Grades 10-12

Prerequisite: None

This course is part of the Advanced Placement Program, which makes demands on students “equivalent to those of an introductory year in economics at the college freshman level.” Students enrolled in this course will take a semester of Macro Economics which focuses on a thorough understanding of the principles of economics that apply to an economic system as a whole. In addition, students will take a semester of Micro Economics which focuses on the principles of economics that apply to the functions of individual decision makers, both consumers and producers within the economic system. *Students are required to take the two AP exam associated with this course. Students not taking the exams will not earn the additional quality point (22806). Successful completion of this course will meet the Economics and Personal Finance graduation requirement for students. Segments of this course will be taught online, thereby satisfying the graduation requirement for a virtual course.*

Environmental Science, AP (34270)

Full year, one credit + 1.0 quality point per credit upon completion of both credits and AP exam, double periods, concurrent enrollment with (34271)

Grades 11-12

Prerequisite: Successful completion of two lab sciences (one life and one physical); however, students may be concurrently enrolled in Chemistry IF they have completed 2 lab sciences (one life and one physical); satisfactory completion of or concurrent enrollment in Algebra II or an equivalent class, concurrent enrollment in Selected Topics in Environmental Science and permission of the instructor

Advanced Placement Environmental Science is a college-level course designed to provide students with the scientific principles, concepts and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. *Students are required to take the AP exam associated with the two required courses. Students not taking the exam will not earn the additional quality point for either course. (24365) (24271).*

Selected Topics in Environmental Science (34271)

Full year, one credit, double period

Grades 11-12

Prerequisite: Concurrent enrollment in AP Environmental Science

These topics will provide students with the opportunity to conduct extensive laboratory investigations in several areas on environmental science. Field experiences combined with laboratory research will allow the students to learn about the environment through first hand observations. Interdependence of earth systems, population dynamics, and renewable/nonrenewable resources will be covered the first semester. Environmental quality, global change, and environment and society will be covered the second semester. *This course will count as a general elective credit. In addition, design and completion of an individual or small-group research project is required.*

United States and Virginia Government and Comparative Government, AP (32443)

Full year, one credit, + 1.0 quality point

Grade 12

Prerequisite: Recommendation of Grade 11 U.S. and Virginia History teacher

This course is part of the Advanced Placement Program of the College Entrance Board, which makes demands on students “equivalent to those of an introductory year in political science at the college freshman level.” Students enrolled in the course will take a semester of US/Virginia Government and Politics and a semester of Comparative Government and Politics. This combined year-long course allows students to take two Advanced Placement exams. The course is designed for the serious student who is willing to meet the demands of in-depth analysis of American government and politics as well as those of the governments of China, Great Britain, Iran, Mexico, Nigeria, and Russia. Much emphasis is placed on extensive reading and writing. *Students are required to take the two AP exams associated with this course. Students not taking the exams will not earn the additional quality point. (22440)*

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 * 20208 Remedial Independent Self-Paced Education-
 World Geography
 * 20207 Remedial Independent Self-Paced Education-
 World History II
 * 20209 Remedial Independent Self-Paced Education-
 United States/Virginia Government
 32400 World History, AP

Social Studies Elective Courses (Page 62-63)

32399 European History, AP
 32212 Human Geography, AP
 * 22218 Introduction to Law
 22700 Leadership Skills for Diversity Peer Trainers
 22900 Psychology
 32902 Psychology, AP
 22500 Sociology
 * 22388 World Affairs

Special Education (Pages 65-69)

20001 English 9
 20002 English 10
 20003 Literature and Composition
 20004 English 12
 * 20006 Reading
 20015 Reading
 20008 Algebra I, Part I
 20007 Integrated Algebra and Geometry
 20054 Selected Topics in Geometry
 20055 Personal Living and Finances
 20038 Science
 20040 World Geography
 20051 World History and Geography, Part I
 20052 World History and Geography to the
 Present, Part II
 20016 Virginia and U.S. History, Part I
 20019 Virginia and U.S. History, Part II
 20053 US History Applications
 20017 Virginia and U.S. History
 20018 Virginia and U.S. Government
 24211 Applications in Earth and Space Science
 20020 Biology, Part I
 20021 Biology, Part II
 20049 Principles of Physics
 20028 Instructional Studies
 * 20030 Instructional Studies

**Semester Course*

Functional Academics (Pages 68-69)

- 20035 English
- 20036 Mathematics
- 20039 Social Studies
- 20014 Reading
- * 20005 Writing
- 20026 Living Skills
- 20023 Social Skills

Volunteer Services (Page 69)

- 20155 Volunteer Service
- * 20156 Volunteer Service

World Languages (Pages 70-80)

- 25990 American Sign Language I
- 25995 American Sign Language II
- 25997 American Sign Language III
- 25800 Arabic I
- 25822 Arabic II
- 25830 Arabic III
- 25840 Arabic IV
- 25841 Arabic V
- 25615 Chinese I
- 25625 Chinese II
- 25630 Chinese III
- 25640 Chinese IV
- 35860 Chinese Language and Culture, AP
- 25110 French I
- 25120 French II
- 25130 French III
- 25140 French IV
- 25150 French V
- 25160 Advanced Studies in French
- 35165 French Language and Culture, AP
- 25210 German I
- 25220 German II
- 25230 German III
- 25240 German IV
- 35235 German Language and Culture, AP
- 25910 Japanese I
- 25920 Japanese II
- 25930 Japanese III
- 25310 Latin I
- 25320 Latin II
- 25330 Latin III
- 25340 Latin IV
- 25350 Latin V
- 35350 Latin V, AP
- 25360 Advanced Studies in Latin
- 25510 Spanish I
- 25517 Spanish for Fluent Speakers I
- 25520 Spanish II
- 25527 Spanish for Fluent Speakers II
- 25530 Spanish III
- 25537 Spanish for Fluent Speakers III
- 25540 Spanish IV
- 25550 Spanish V
- 25560 Advanced Studies in Spanish

- 35565 Spanish Language and Culture, AP
- 35580 Spanish Literature, AP

COURSES OFFERED AT CAREER CENTER/GOVERNOR'S CAREER & TECHNICAL ACADEMIES (Pages 81-102)

- 28170 Advanced Topics in Business Administration
- 28171 Advanced Topics in Business Management
- 28062 Advanced Animal Science I/Veterinary Assistant I
- 28063 Advanced Animal Science II/Veterinary Assistant II
- 26649 Advanced Topics in Computer Information Systems
- 26648 Advanced Topics in Information Technology
- 28741 Air Force Junior ROTC I
- 28742 Air Force Junior ROTC II
- 28743 Air Force Junior ROTC III
- 28744 Air Force Junior ROTC IV
- 28745 Air Force Junior ROTC V
- 28746 Air Force Junior ROTC VI
- 28677 Automotive Collision Repair I
- 28678 Automotive Collision Repair II
- 28509 Automotive Technology I
- 28507 Automotive Technology II
- 28508 Automotive Technology III
- 28731 Aviation Technology
- 28531 Barbering I
- 28532 Barbering II
- 28526 Barbering III
- 28085 Biology II/Human Biology
- 28467 Biotechnology Techniques and Applications
- 22010 Career Investigation
- 28408 Computer Assisted Architectural Drawing
- 28438 Computer Assisted Engineering Drawing
- 28439 Computer Assisted Technical Drawing
- 26614 Computer Information Systems
- 26638 Computer Programming
- 26643 Computer Programming Advanced
- 28512 Construction Technology
- 28528 Cosmetology I
- 28529 Cosmetology II
- 28530 Cosmetology III
- * 26653 Cybersecurity I: Networks
- * 26654 Cybersecurity I: Operating Systems
- * 26655 Cybersecurity I: Systems Administration
- * 26656 Cybersecurity I: Telecommunications & Routing Protocols
- 26657 Cybersecurity II: Network Operations
- 26658 Cybersecurity II: Network Operations Advanced
- 28522 Culinary Arts & Sciences I
- 28523 Culinary Arts & Sciences II
- 28457 Digital Animation

*Semester Course

28235 Early Childhood Education I
 28236 Early Childhood Education II
 28534 Electricity I
 28535 Electricity II
 98334W Emergency Medical Technician/Basic
 Human Anatomy and Physiology
 28536 Energy and Power
 28491 Engineering I: Intro to Engineering
 Design I 28492 Engineering II: Principles of
 Engineering II
 28493 Engineering III: Computer Integrated
 Production Engineering
 28494 Engineering IV: Design & Development/
 Capstone Course
 28325 Forensic Technology with Application in
 Biotechnology
 28458 Graphic Communications System
 28303 Health Sciences
 26116 Introduction to Information Technology
 28383 Medical Terminology
 28305 Pharmacy Technician
 28625 Photo and Video Technology I
 28626 Photo and Video Technology II
 28332 Physical Therapy/Sports Medicine
 Technology
 28421 Robotic Design
 28064 Technical Animal Science I/Small
 Animal Care
 28460 Sustainable and Renewable Technologies
 28689 Television Production I
 28690 Television and Multimedia Production II
 28691 Television and Multimedia Production III
 28061 Technical Animal Science II/Veterinary
 Science

Note: Enrollment in any of the CTE courses listed above includes the opportunity to earn industry certification or to take a state licensure examination which would fulfill the graduation requirement for a Standard Diploma. See page 5 for more detail.

ADDITIONAL NON-CTE COURSES OFFERED AT THE CAREER CENTER (Pages 98-99)

93162W Pre-Calculus NOVA MTH 163/164
 93176W Calculus: Dual Enrollment
 91160W English 12 - Dual Enrollment
 24365 Environmental Science
 92240W United States & Virginia Government
 Dual Enrollment

Internship Programs (Page 99)

29060 Professional Related Intern-Mentorship
 Experience (PRIME)
 29828 School-to-Work Transition/Internship

**ACADEMIC PROGRAMS
 ARLINGTON TECH AT THE CAREER
 CENTER (Pages 100-101)**

Arlington Tech Academies at the Career Center
 Academic Academy (Transition 9)
 Institute for Career Development and Academic
 Achievement (HILT Institute)
 Program for Employment Preparedness
 20998 Occupational Knowledge
 20999 Occupational Exploration
 20976 Occupational Training/Education for
 Employment
 Career Assessment Services

**COURSES OFFERED AT ARLINGTON
 COMMUNITY HIGH SCHOOL (Page 103)**

22010 Career Investigations
 91160W English 12 Dual Enrollment
 24365 Environmental Science
 20891 HILT/HILTEX Grammar Development

**COURSES OFFERED AT WAKEFIELD
 (Pages 104-112)**

20190 Senior Project
 * 21095 Senior Project
 20191 Senior Project Independent Study
 34270 Environmental Science, AP
 34271 Selected Topics in Environmental Science
 32806 Economics, AP
 20184 AP Study Seminar
 21176, 22376 American Civilization:
 English and Social Studies Intensified
 24365 Environmental Studies
 * 21447 Film Study II
 21518 World Literature
 25511 Spanish Immersion 9
 25521 Spanish Immersion 10
 22211 Economics and Personal Finance Immersion
 24319 Intensified Biology Laboratory Course
 Immersion

**COURSES OFFERED AT WASHINGTON-LEE
 (Pages 113-130)**

31197 IB English (HL) Part I
 31198 IB English (HL) Part II
 35577 IB Spanish Language & Literature (HL) Part I
 35587 IB Spanish Language & Literature (HL) Part II
 35841 IB Arabic (SL) Part I
 35845 IB Arabic (SL) Part II
 35815 IB Mandarin Chinese (SL) Part I
 35825 IB Mandarin Chinese (SL) Part II
 35157 IB French B (SL) Part I
 35167 IB French B (SL) Part II
 35158 IB French B (HL) Part I
 35168 IB French B (HL) Part II

**Semester Course*

**COURSES OFFERED AT WASHINGTON-
LEE continued (Pages 113-130)**

35357 IB Latin (SL) Part I
35367 IB Latin (SL) Part II
35362 IB Latin (HL) Part I
35372 IB Latin (HL) Part II
35575 IB Spanish B (SL) Part I
35585 IB Spanish B (SL) Part II
35578 IB Spanish B (HL) Part I
35588 IB Spanish B (HL) Part II
36114 IB Business and Management (SL)
32802 IB Economics (SL)
32210 IB Geography (SL)
32385 IB History of the Americas (HL) Part I
32386 IB Topics in 20th Century World
History (HL) Part II
36613 IB Information Technology in a
Global Society
32600 IB Philosophy (SL)
32901 IB Psychology (SL)
32903 IB Psychology (HL) Part I
32904 IB Psychology (HL) Part II
32372 IB Social Anthropology (SL)
32375 IB Social Anthropology (HL) Part I
32377 IB Social Anthropology (HL) Part II
34378 IB Biology (SL)
34376 IB Biology (HL) Part I
34377 IB Biology (HL) Part II
34476 IB Chemistry (HL) Part I
34477 IB Chemistry (HL) Part II
36560 IB Computer Science (HL) Part I
36570 IB Computer Science (HL) Part II
38496 IB Design Technology (SL) Part I
38496 IB Design Technology (SL) Part II
34275 IB Environmental Sys. & Societies (SL)
34576 IB Physics (SL) Part I
34577 IB Physics (SL) Part II
38055 IB Sports, Exercise, and Health Science
(SL) Part I
38057 IB Sports, Exercise, and Health Science
(SL) Part II
33170 IB Mathematical Studies (SL)
33171 IB Mathematical (SL) Part I
33172 IB Mathematical (SL) Part II
33181 IB Mathematics (HL) Part I
33182 IB Mathematics (HL) Part II
31144 IB Film Study (SL) Part I
31145 IB Film Study (SL) Part II

31147 IB Film Study (HL) Part I
31149 IB Film Study (HL) Part II
39227 IB Music (SL)
39141 IB Theatre Arts (SL)
39142 IB Theatre Arts (HL) Part I
39143 IB Theatre Arts (HL) Part II
39144 IB Visual Arts (SL)
39146 IB Visual Arts (HL) Part I
39148 IB Visual Arts (HL) Part II
22605 Theory of Knowledge
24365 Environmental Studies
98423W Geospatial Tools and Techniques

**COURSES OFFERED AT YORKTOWN
(Pages 131-133)**

22375/21175 American Civilization: American
History and Literature
24400 Principles of Chemistry
21130/22216 English 9 and World History &
Geography: 1500 AD to the Present
* 21447 Film Study II
24273 Intensified Environmental Science
20152 SOAR
24312 Standard Biology
25311 Latin I/II Latin (Accelerated) (Pilot)
21518 World Literature
28443 Engineering Design & Development (PLTW)
29233 Intermediate Band
29234 Advanced Band
32806 Economics, AP
34270 Environmental Science, AP
34271 Selected Topics in Environmental Science
32443 US and VA Government and Comparative
Government, AP

**Semester Course*

APPENDIX A

The following courses meet the current definition of fine arts. Semester courses may be taken provided two or more are completed for one unit of credit.

Visual Arts

Art I (29120)
Art II (29130)
Art III (29140)
AP Studio Art (39149)
AP Art History (39151)
IB Visual Art (HL) Part I (39146) Part II (39148)
IB Visual Art (SL) (39144)
Ceramics I (29167)
Ceramics II (29168)
Ceramics III (29169)
Introduction to Crafts (S) (29160)
Crafts (29162)
Painting and Drawing (S) (29163)
Computer Graphics (29152)
Digital Photography I (29193)
Digital Photography II (29194)
Digital Photography III (29195)
Introduction to Sculpture (S) (29165)
Sculpture (29166)
Television Production I (28689)
Television and Multimedia Production II (28690)
Television and Multimedia Production III (28691)

Music

Chamber Choir (29252)
Concert Choir (29260)
Men's Chorus (29266)
Advanced Choir (29289)
Intermediate Band (29233)
Advanced Band (29234)
Marching Band (S) (29254)
Ensembles (S) (29250)
Beginning Instrumental Music (29200)
String Orchestra (29244)
Chamber Orchestra (29242)
Guitar I (29245)
Guitar II (29247)
Song Writing, Digital Audio, & Music Theory (29225)
Music Theory, AP (39226)
Jazz Instrumental Lab/Ensemble (29251)
Jazz/Pop Vocal Lab/Ensemble (29280)

Theatre Arts

Theatre Arts I (21400)
Theatre Arts II (21415)
Theatre Arts III (21425)
Theatre Arts IV (21430)
Technical Theatre (21435)
IB Technical Arts (39141) (39142) (39143)
Film Study (S) (21446)

Fine Arts Apprentice Program

Fine Arts Apprentice Program I (29290)
Fine Arts Apprentice Program II (29291)
Fine Arts Apprentice Program III (29292)

APPENDIX B
Arlington Public Schools
Career and Technical Education (CTE) Courses at a Glance

<u>2017-18 Course Offerings</u>	Career Center	Wakefield	W-Lee	Yorktown
Business & Information Technology				
Advanced Topics in Business and Marketing (28137)		X	X	X
Advanced Topics in Business Administration (28170)	X			
Advanced Topics in Business Management (28171)	X			
Advanced Topics in Computer Information Systems (26649) (96649W)	X			
Advanced Topics in Information Technology (26648)	X	X	X	X
Computer Information Systems (26614)	X	X	X	X
Computer Programming (26638) (96638W)	X			
Computer Programming Advanced (26643) (96643W)	X			
Cybersecurity I: Networks (26653) (96653W)	X			
Cybersecurity I: Operating Systems (26654) (96654W)	X			
Cybersecurity I: Systems Administration (26655) (96655W)	X			
Cybersecurity I: Telecommunications & Routing Protocols (26656) (96656W)	X			
Cybersecurity II: Network Operations (26657) (96657W)	X			
Cybersecurity II: Network Operations Advanced (26658) (96658W)	X			
Cooperative “Coop” Work Experience I, II, III , requires concurrent CTE Course enrollment, (28951, 28953, 28954)	X	X	X	X
Technology Computer Applications (26153)		X	X	X
Computer Networking & Internet Applications (29800)		X	X	X
Design and Multimedia & Web Technologies (26630)		X	X	X
Entrepreneurship (29094) (99094W)		X	X	X
Entrepreneurship Advanced (29095)		X	X	X
Introduction to Business and Marketing (26112)		X	X	X
Introduction to Information Technology (26116)	X	X	X	X
IB Business & Management SL (36114)			X	
Computer Science				
Computer Science (26639)		X	X	X
Computer Science, AP (33185)		X	X	X
Computer Science Principles, AP (33186)		X	X	X
IB Computer Science, HL Part I (36560) & Part II (36570)			X	
IB Information Technology in a Global Society (36613)			X	
Marketing				
Introduction to Business and Marketing (26112)		X	X	X
Sports, Entertainment, and Recreation Marketing (28123)		X	X	X
Family and Consumer Sciences				
Child Development and Parenting – Year (28232) Semester (28230)		X	X	X
Early Childhood Education I (28235) & II (28236)	X			
Food and Fitness - Year (28274) Semester (28272)		X	X	X
Introduction to Fashion Careers (28147)		X	X	X
Introduction to Interior Design (28289)		X	X	X
Teachers for Tomorrow I (29062) (99062W) & II (29063)		X	X	X

2017-18 Course Offerings	Career Center	Wakefield	W-Lee	Yorktown
Technical Education/Trade and Industrial Programs				
Air Force Junior ROTC I (28741) and II (28742)	X			
Air Force Junior ROTC III (28743) and IV (28744)	X			
Air Force Junior ROTC V (28745) and VI (28746)	X			
Automotive Collision Repair I (28677) and II (28678)	X			
Automotive Technology I (28509)	X			
Automotive Technology II (28507)	X			
Automotive Technology III (28508)	X			
Aviation Technology (28731)	X			
Barbering I (28531)	X			
Barbering II (28532)	X			
Barbering III (28526)	X			
Biotechnology Techniques and Applications (28467)	X			
Computer Assisted Architectural Drawing (28408)	X	X	X	X
Computer Assisted Engineering Drawing (28438)	X			
Computer Assisted Technical Drawing (28439)	X	X	X	X
Construction Technology (28512)	X			
Cosmetology I (28528)	X			
Cosmetology II (28529)	X			
Cosmetology III (28530)	X			
Culinary Arts I & Sciences I (28522)	X			
Culinary Arts & Sciences II (28523)	X			
Digital Animation (28457)	X			
Electricity I (28534) and II (28535)	X			
EMT/Basic Human Anatomy and Physiology (28334) (98334W)	X			
Engineering I: Introduction to Engineering Design (28491)	X	X	X	X
Engineering II: Principles of Engineering (28492)	X	X	X	X
Engineering III: Computer Integrated Production Engineering (28493)	X			
Engineering IV: Design and Development/Capstone Course (28494)	X			
Engineering Design & Development (PLTW) (28443)				X
Forensic Technology with Application in Biotechnology (28325)	X			
Graphic Communication Systems (28458)	X			
Health Sciences (28303)	X			
IB Design Technology Part I (38496)			X	
IB Design Technology Part II (38497)			X	
Medical Terminology (28283) (98283)	X			
Pharmacy Technician (28305)	X			
Physical Therapy/Sports Medicine Technology (28332)	X			
Photo and Video I (28625)	X			
Photo and Video II (28626)	X			
Robotic Design (28421)	X			
School to Work Transition Internship (29828)	X			
Technical Animal Science I/Small Animal Care (28064)	X			
Sustainable and Renewable Technologies (28460)	X			
Television Production I (28689)	X			
Television and Multimedia Production II (28690)	X			
Television and Multimedia Production III (28691)	X			
Advanced Animal Science I/Veterinary Assistant I (28062) and II (28063)	X			

Note: Enrollment in any of these courses includes the opportunity to earn industry certification or to take a state licensure examination which would fulfill the graduation requirement for a Standard Diploma.

APPENDIX C
Arlington Public Schools
Dual Enrollment Courses at a Glance

Course Offerings	APS Locations	College/University Awarding Credit Earned
Mathematics for the Liberal Arts I/II (93160W)	Arlington Community, Career Center, Wakefield, Washington-Lee, and Yorktown	Northern Virginia Community College
Advanced Topics in Business and Marketing (98137W) (CC only: 98138W)	Arlington Community, Career Center, Wakefield, Washington-Lee, and Yorktown	Northern Virginia Community College
Advanced Topics in Information Technology (96648W)	Arlington Community, Career Center, Wakefield, Washington-Lee, and Yorktown	Northern Virginia Community College
Automotive Technology I (98509W)	Career Center	Northern Virginia Community College
Automotive Technology II (98507W)	Career Center	Northern Virginia Community College
Automotive Technology III (98508W)	Career Center	Northern Virginia Community College
Biology II/Human Biology (98085W)	Career Center	Northern Virginia Community College
Computer Information Systems (96614W)	Arlington Community, Career Center, Wakefield, Washington-Lee, and Yorktown	Northern Virginia Community College
Computer Assisted Technical Drawing (98439W)	Arlington Community, Wakefield, Washington-Lee, and Yorktown	Northern Virginia Community College
Computer Assisted Architectural Drawing (98408W)	Arlington Community, Career Center, Wakefield, Washington-Lee, and Yorktown	Northern Virginia Community College
Computer Assisted Technical/Engineering Drawing (98436W)	Career Center	Northern Virginia Community College
Technology Computer Applications (96153W)	Arlington Community, Wakefield, Washington-Lee, and Yorktown	Northern Virginia Community College
Computer Programming (96638W)	Career Center	Northern Virginia Community College
Computer Programming Advanced (96643W)	Career Center	Northern Virginia Community College
Computer Science (96639W)	Wakefield, Washington-Lee, and Yorktown	Northern Virginia Community College
Differential Equations (93180W)	HB Woodlawn, Wakefield, Washington-Lee, and Yorktown	Northern Virginia Community College
Digital Photography III (98610W)	Wakefield, Washington-Lee, and Yorktown	Northern Virginia Community College
Early Childhood Education II (98236W)	Career Center	Northern Virginia Community College
Emergency Medical Technician/Human Anatomy and Physiology (98334W)	Career Center	Northern Virginia Community College
English 12 (91160W)	Career Center and Arlington Community	Northern Virginia Community College
Entrepreneurship (99094W)	Arlington Community, Wakefield, Washington-Lee, and Yorktown	Northern Virginia Community College
Geospatial Tools and Techniques (98423W)	Washington-Lee	James Madison University
Linear Algebra (93165W)	HB Woodlawn, Wakefield, Washington-Lee, and Yorktown	Northern Virginia Community College
Medical Terminology (98383W)	Career Center	Northern Virginia Community College
Multivariable Calculus (93178W)	HB Woodlawn, Wakefield, Washington-Lee, and Yorktown	Northern Virginia Community College
Pre-Calculus NOVA MTH 163/164 (93162W)	Career Center	Northern Virginia Community College
Calculus (93176W)	Career Center	Northern Virginia Community College
Teachers for Tomorrow I (99062W)	Wakefield, Washington-Lee, and Yorktown	Shenandoah University
Television and Multimedia Production II (98690W)	Career Center	Northern Virginia Community College
US/VA Government (92240W)	Arlington Community, Career Center, Wakefield, Washington-Lee, and Yorktown	Northern Virginia Community College
Vector Calculus (93175W)	HB Woodlawn, Wakefield, Washington-Lee, and Yorktown	Northern Virginia Community College

APPENDIX D
Arlington Public Schools
NOVA General Studies Certificate

The following articulates a pathway for a qualifying student within Arlington Public Schools to complete the Northern Virginia Community College General Studies Certificate. To be eligible for this certificate **at least twenty-five percent (25%), or nine (9), of the credits must be taken in dual enrollment courses.** When choosing college courses it is wise to check transferability with the college you hope to attend.

NOVA Course	College Credits	High School Credit	High School Graduation Requirement	Possible High School Courses
ENG 111 / 112 College Composition I & II	6	1	English 12	<p><i>AP Courses with 3 or better on exam</i> AP Language & Composition = ENG 111 and 112 AP Literature & Composition = ENG 111 and 112 <i>IB Credit will be earned for either one or two courses depending on the final score.</i> IB English HL = ENG 111 or ENG 111 -112 Dual Enrollment grade of a C or higher DE ENG 111 / 112 College Composition I & II (ACC) (6 NOVA Credits)</p>
MTH 151 / 152 Math for the Liberal Arts OR higher level math courses	3-10 depending on course	1	Advanced Level Math	<p><i>AP Courses with 3 or better on exam</i> AP Calculus AB = Math 173 AP Calculus BC = MTH 173-174 AP Statistics = MTH 241 <i>IB Credit will be earned for either one or two courses depending on the final score.</i> IB Mathematics HL = MTH 173 or MTH 173-174 Dual Enrollment grade of a C or higher DE MTH 151/152- Math for Liberal Arts I/II (WHS, WLHS) (6 NOVA Credits) DE MTH 163/164- Pre-Calculus I & Pre-Calculus II (ACC) (6 NOVA Credits) DE MTH 173- Calculus w/Analytic Geometry I (ACC) (3 NOVA Credits) DE MTH 277- Vector Calculus (HBW, WHS, WLHS, YHS) (4 NOVA Credits) DE MTH 285- Linear Algebra (WLHS) (3 NOVA Credits)</p>
Physical or Life Science with Lab I & II	8	1-2	Science credit	<p><i>AP Courses with 3 or better on exam</i> AP Biology = BIO 101-102 AP Chemistry = CHM 111-112 AP Physics B = PHY 201-202 AP Environmental Science = ENV 121-122 <i>IB Credit will be earned for either one or two courses depending on the final score.</i> IB Biology HL = BIO 101 or BIO 101-102 IB Chemistry HL = CHM 111 or CHM 111-112 Dual Enrollment grade of a C or higher DE Biology II- Biology 141 (ACC) (4 NOVA Credits)</p>
3 Social Science Classes approved by District	9	1.5 - 2 credits, students need at least two courses	History & Social Sciences credits	<p><i>AP Courses with 3 or better on exam</i> AP European History = HIS 101-102 AP Virginia & US History = HIS 121-122 AP World History = HIS 111-112 AP Comparative Government & Politics = PLS 120 AP Virginia & US Government = PLS 211-212 AP Economics, Macro = ECO 201 AP Economics, Micro = ECO 202 AP Psychology = PSY 201-202 AP Human Geography = GEO 210 <i>IB Credit will be earned for either one or two courses depending on the final score.</i> IB Topics in World History HL = HIS 101 or HIS 101-112 IB History of the Americans HL = HIS Elective IB Psychology HL = PSY 201 or PSY 201-202 IB Social Anthropology HL = SOC 211 or SOC 211-212 Dual Enrollment grade of a C or higher DE PLS 135/136- American National Politics/State and Local Politics (After school at Langston) (6 NOVA Credits)</p>
2 Humanity Classes approved by District	6	1	Elective, World Language or English 12 credit depending on the course taken	<p><i>AP Courses with 3 or better on exam</i> AP Chinese = CHI 201-202 AP French V = FRE 201-202 AP German V = GER 201-202 AP Spanish V = SPA 201-202 AP Spanish Literature V = SPA 233 + SPA elective OR SPA 271-272 AP Art History = ART 101-102 <i>IB Credit will be earned for either one or two courses depending on the final score.</i> IB Philosophy = PHI 101 or PHI 101-102 IB French HL = FRE 201-202 with a score of 6 or 7 IB Spanish HL = SPA 201-202 with a score of 6 or 7</p>
SDV 100 College Success Skills	1		N/A	<p>Dual Enrollment grade of a C or higher DE SDV 100- College Success Skills (ACC)</p>

All IB courses listed above only include Higher Level (HL) exam scores of 5 or higher. No credit is given for Standard Level (SL) IB exams. These courses are only offered at Washington-Lee. IB Credit will be earned for either one or two NOVA courses depending on the final score. Scores of 5 generally will count as one NOVA course and scores of 6 or 7 will generally count as two NOVA courses.

APPENDIX E
Arlington Public Schools
Virtual Course Offerings to Fulfill Graduation Requirement

Virtual Course Requirement 20-3.200 Instructional Delivery Options

Beginning in the 2013-14 school year, students entering Grade 9 are required by the Code of Virginia to successfully complete one virtual course to earn a Standard Diploma or an Advanced Studies Diploma. The course may be a credit or non-credit-bearing (make-up or strengthening) course.

Criteria for Approval of Virtual Courses

Any virtual course used to meet graduation requirements or that will be counted in the calculation of grade point must either:

- Be listed as a course offered in a virtual environment by APS in the Program of Studies, or
- If not offered by APS (or the student is unable to take the APS course for reasons approved and verified by the school the student is attending), the course must be:
 - pre-approved by the Superintendent’s designee;
 - offered by an accredited institution or offered by a provider which meets the Virginia Department of Education criteria for approved providers;
 - aligned with the appropriate Virginia Standards of Learning, where applicable; and
 - of an appropriate grade and content level comparable in level of rigor with any corresponding APS courses, accessible for all learners, and meet best practices for instructional design as outlined by the International Association for K-12 Online Learning (iNACOL).

References Policy 20-3.200 Instructional Delivery Options

Courses offered during the school day which fulfill the virtual requirement in 2017-2018:

- Art History, AP
- Computer Assisted Drawing
- Computer Information Systems
- Economics and Personal Finance
- Health I
- HILT B Social Studies
- US/VA History
- Arabic (I-V) *
- Chinese (I-AP) *
- German (I-AP) *
- Japanese(I-III)
- Latin(I-II)

**Successful completion of a high school credit bearing course in middle school delivered through Virtual@APS may be used to fulfill the graduation requirement. Please see your counselor for more information.*

Please see course descriptions in appropriate content area section of this document. Additional information regarding Virtual@APS is available at: <https://virtualaps.apsva.us/>