



# **Arlington Public Schools HIGH SCHOOL PROGRAM OF STUDIES 2019-20**

## **COMPREHENSIVE HIGH SCHOOLS AND HIGH SCHOOL PROGRAMS**

### **WAKEFIELD HIGH SCHOOL**

1325 S. Dinwiddie Street  
Arlington, VA 22206  
(703)228-6700

### **YORKTOWN HIGH SCHOOL**

5201 N. 28th Street 22207  
Arlington, VA 22207  
(703)228-5400

### **NEW DIRECTIONS**

2847 Wilson Boulevard  
Arlington, VA 22207  
(703)228-2117

### **WASHINGTON-LEE HIGH SCHOOL**

1301 N. Stafford Street  
Arlington, VA 22201  
(703)228-6200

### **CAREER CENTER/ ARLINGTON TECH PROGRAM**

816 Walter Reed Drive  
Arlington, VA 22204  
(703)228-5800

### **ARLINGTON COMMUNITY HIGH SCHOOL**

800 S. Walter Reed Dr.  
Arlington, VA 22204  
(703)228-5350

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## **HIGH SCHOOL CONTINUATION**

**LANGSTON**  
2121 N. Culpeper Street  
Arlington, VA 22203  
(703)228-5295

*El Programa de Estudios de las Escuelas Secundarias está disponible en español en todas las oficinas de consejería de las Escuelas Públicas de Arlington o en el sitio web: [www.apsva.us](http://www.apsva.us)*

**THE ARLINGTON HIGH SCHOOL PROGRAM OF STUDIES  
TABLE OF CONTENTS**

Message from Tara Natrass, Assistant Superintendent, Teaching & Learning .....	iii
Program Planning.....	1
Special Program Arrangements .....	3
Professional School Counselors.....	4
Aspire2Excellence .....	4
Graduation Requirements .....	5
Student Services & Special Education.....	15
Library Services .....	16
Alternative Programs .....	16
Opportunities for Students Who Receive Gifted Services .....	19
Courses Offered at Arlington Community, Wakefield, Washington-Lee, & Yorktown .....	20
Arts Education .....	20
Career & Technical Education.....	26
Business & Information Technology .....	27
Computer Science .....	29
Family & Consumer Sciences.....	30
Marketing.....	31
Technology Education .....	32
Driver Education & Safety.....	33
English Language Arts.....	34
Health & Physical Education .....	38
High Intensity Language Training .....	39
Mathematics.....	40
Science.....	46
Social Studies.....	51
Special Education.....	58
Functional Academics.....	61
Volunteer Services .....	62
World Languages .....	63
Supplemental Programs & Courses	
Arlington Career Center – Special Program for All Students, Specialized Programs & Program of Studies Addendum.....	74
Arlington Community High School – Special Program for All Students & Program of Studies Addendum .....	100
Wakefield High School – Special Program for All Students & Program of Studies Addendum .....	102
Washington-Lee High School – International Baccalaureate Program & Program of Studies Addendum.....	113
Yorktown High School – Program of Studies Addendum.....	132
Index of Courses Offered in the Program of Studies .....	135
Appendix A – Fine Arts Course Offerings .....	141
Appendix B – Career & Technical Education Courses at a Glance.....	142
Appendix C – Dual Enrolled Course Offerings .....	144
Appendix D – NOVA General Studies Certificate .....	147
Appendix E – Virtual Courses Offerings to Fulfill Graduation Requirement .....	148



January 2019

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 2019-20 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, Teaching and Learning

## 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** All courses listed in the Program of Studies are available for student requests. When completing the final course schedules, courses that have fewer than 15 students may not be offered. 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 AND VISION:

**Mission:** School counselors of Arlington Public Schools encourage equitable learning and access through advocacy and support for all students. The School counselor addresses the academic success, career self-awareness and social/emotional resiliency of all students. All students have access to a Comprehensive School Counseling.

**Vision:** All individuals who learned in the Arlington Public School system embrace the concept of the whole adult and are practiced in the skills of self-awareness, self-management, responsible decision-making, relationship building and social awareness and are fulfilled in life.

### PROVISION OF SERVICES:

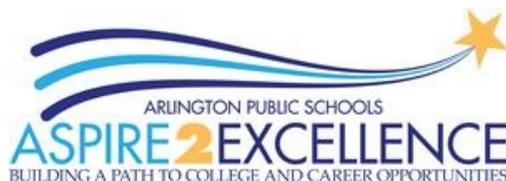
School counseling programs are collaborative efforts benefiting students, parents, teachers, administrators and the overall community. School counseling programs should be an integral part of students' daily educational environment, and school counselors should be partners in student achievement. The components of a comprehensive school counseling program are modeled on the National Model of the American School Counseling Association (ASCA.)

**Direct student services** are in-person interactions between school counselors and students and include the following:

- **School counseling core curriculum:** This curriculum consists of structured lessons designed to help students attain the desired competencies and to provide all students with the knowledge, attitudes and skills appropriate for their developmental level. The school counseling core curriculum is delivered throughout the school's overall curriculum and is systematically presented by school counselors in collaboration with other professional educators in K-12 classroom and group activities. Arlington Public Schools uses several resources: One resource is the Committee for Children's Second Step Program. These K-8 lessons cover social-emotional and academic skill building. The Second Step resource materials can be viewed at [here](#). APS uses the entire Second Step Suite for K-Grade 5 and the Middle School 2011 Social-Emotional Program. To learn more about and to review all curriculum resources delivered by school counselors in your student's school, please make an appointment with the School Counselor.
- **Individual student planning:** School counselors coordinate ongoing systemic activities designed to assist students in establishing personal goals and developing future plans. The academic planning process occurs at a minimum of once a year and includes meeting with students to plan their courses for the subsequent year. The purpose is three-fold; 1) to ensure graduation requirements are met, 2) to discuss the relationship of available courses to career aspirations, and 3) to encourage students to challenge themselves academically. The meeting results in an Academic and Career Plan (ACP) which is shared with families.
- **Responsive services:** Responsive services are activities designed to meet students' immediate needs and concerns. Responsive services may include counseling in individual or small-group settings or crisis response.
- **Indirect Student Services** Indirect services are provided on behalf of students as a result of the school counselors' interactions with others including referrals for additional assistance, consultation and collaboration with parents, teachers, other educators and community organizations.

### 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.



## 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 standard or advanced studies 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.

### Requirements for a Standard Diploma.

1. Beginning with the *ninth-grade class of 2013-14 and through the ninth-grade class of 2017-18*, students shall earn the required standard and verified units of credit described in subdivision 2 of this subsection.
2. Credits required for graduation with a Standard Diploma.

Discipline Area	Standard Units of Credit Required	Verified Credits Required
English	4	2
Mathematics <sup>1</sup>	3	1
Science <sup>2,6</sup>	3	1
History & Social Sciences <sup>3,6</sup>	3	1
Health & Physical Education	2	
Foreign Language, Fine Arts or Career & Technical Education <sup>7</sup>	2	
Economics & Personal Finance	1	
Electives <sup>4</sup>	4	
Student Selected Test <sup>5</sup>		1
Career & Technical Education Credential <sup>8</sup>		
<b>Total<sup>9</sup></b>	<b>22</b>	<b>6</b>

<sup>1</sup> 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. A computer science course credit earned by students may be considered a mathematics credit.

<sup>2</sup> 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. A computer science course credit earned by students may be considered a mathematics credit.

<sup>3</sup> 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.

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

<sup>5</sup> 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 [8VAC20-131-110](#).

<sup>6</sup> 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 (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 as an additional test to verify student achievement.

<sup>7</sup> Pursuant 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. A computer science course credit earned by students may be considered a career and technical education course credit.

<sup>8</sup> Students 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.

<sup>9</sup> Students 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.

Beginning with first-time ninth-grade students in the 2016-17 school year, students shall be trained in emergency first aid, cardiopulmonary resuscitation, and the use of automated external defibrillators, including hands-on practice of the skills necessary to preform cardiopulmonary resuscitation. Students with an Individualized Education Program (IEP) or 504 Plan which documents that they cannot successfully complete this training shall be granted a waiver from this graduation requirement, as provided in 8VAC20-131-420 B.

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

## Requirements for an Advanced Studies Diploma.

1. Beginning with *the ninth-grade class of 2013-14 and through the ninth-grade class of 2017-18*, 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 <sup>1</sup>	4	2
Science <sup>2</sup>	4	2
History & Social Sciences <sup>3</sup>	4	2
Foreign Language <sup>4</sup>	3	
Health & Physical Education	2	
Fine Arts or Career & Technical Education	1	
Economics & Personal Finance	1	
Electives	3	
Student Selected Test <sup>5</sup>		1
<b>Total<sup>6</sup></b>	<b>26</b>	<b>9</b>

<sup>1</sup>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. A computer science course credit earned by students may be considered a mathematics credit.

<sup>2</sup>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 additional courses to satisfy this requirement. A computer science course credit earned by students may be considered a mathematics credit.

<sup>3</sup>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 additional courses to satisfy this requirement.

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

<sup>5</sup> A computer science credit earned by students may be considered a career and technical education course credit.

<sup>6</sup> 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 [8VAC20-131-110](#).

<sup>7</sup> Students 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.

Beginning with first-time ninth-grade students in the 2016-17 school year, students shall be trained in emergency first aid, cardiopulmonary resuscitation, and the use of automated external defibrillators, including hands-on practice of the skills necessary to preform cardiopulmonary resuscitation. Students with an Individualized Education Program (IEP) or 504 Plan which documents that they cannot successfully complete this training shall be granted a waiver from this graduation requirement, as provided in 8VAC20-131-420 B.

## Requirements for a Standard Diploma.

Beginning with *the ninth-grade class of 2018-19 and beyond*, students shall earn the required standard and verified units of credit.

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 five verified credits by passing end-of-course SOL tests or other assessments approved by the Board of Education.

Discipline Area	Standard Unit of Credit Required	Verified Credits Required
English (reading and writing)	4	2
Mathematics	3	1
Science	3	1
History & Social Sciences	3	1
Health & Physical Education	2	
World Languages Fine Arts or Career & Technical Education	2	
Economics & Personal Finance	1	
Electives	4	
Total	22	5

## Requirements for an Advanced Studies Diploma.

Beginning with *the ninth grade class of 2018-19 and beyond*, students shall earn the required standard and verified unit of credit.

To graduate with an Advanced Studies Diploma, a student must earn at least 26 standard units of credit by passing requires courses and electives, and at least five verified credits by passing end-of-course SOL tests or other assessments approved by the Board of Education.

Discipline Area	Standard Unit of Credit Required	Verified Credits Required
English (reading & writing)	4	2
Mathematics	4	1
Science	4	1
History & Social Sciences	4	1
World Languages	3	
Health & Physical Education	2	
Fine Arts or Career & Technical Education	1	
Economics & Personal Finance	1	
Electives	3	
Total	26	5

**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 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, Advanced Studies Diploma with an average grade of "A" shall receive a Board of Education Seal on the diploma

**Graduation Seals of Achievement** Students meeting specific requirements for graduation and demonstrating exemplary performance may receive diploma seals for recognition. The Virginia Department of Education makes available to Arlington Public Schools and other local school divisions the following seals:

- **Governor's Seal** is awarded to students who complete the requirements for an Advanced Studies 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), Cambridge, or dual enrollment courses.
- **Board of Education Seal** is awarded to students who complete the requirements for a Standard Diploma or Advanced Studies Diploma with an average of "A".
- **Board of Education's Career & Technical Seal** is awarded to students who:
  - ❖ Earn a Standard or Advanced Studies Diploma and complete a prescribed sequence of course in a career and technical education concentration or specialization that they choose and maintain a "B" or better average in those courses
  - ❖ OR 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 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. Visit [http://www.doe.virginia.gov/instruction/career\\_technical/path\\_industry\\_certification/index.shtml](http://www.doe.virginia.gov/instruction/career_technical/path_industry_certification/index.shtml) for current approved licenses and examinations.

- **Board of Education’s Advanced Mathematics & Technology Seal** is awarded to students who earn either a Standard or Advanced Studies Diploma and satisfy all of the mathematics requirements for the Advanced Studies Diploma (four units of credit including Algebra II; two verified units of credit) with a “B” average or better and either:
  - ❖ Pass an examination in a career and technical education field that confers certification from a recognized industry, or trade or professional association
  - ❖ OR acquire a professional license in a career and technical education field from the Commonwealth of Virginia
  - ❖ OR 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. Visit

[http://www.doe.virginia.gov/instruction/career\\_technical/path\\_industry\\_certification/index.shtml](http://www.doe.virginia.gov/instruction/career_technical/path_industry_certification/index.shtml) for current approved licenses and examinations.

- **Board of Education’s Excellence in Civics Education Seal** is awarded to students who meet each of the following four criteria:
  - ❖ Satisfy the requirement to earn a Modified Standard Diploma, a Standard Diploma or an Advanced Studies Diploma
  - ❖ Complete Virginia & United States History and Virginia United States Government courses with a grade of “B” or higher.
  - ❖ Complete 50 hours of voluntary participation in community service or extracurricular activities, such as volunteering for a charitable or religious organization that provides services to the poor, sick or less fortunate; participating in Boy Scouts, Girl Scouts or similar youth organizations, participating in Junior Reserve Officer Training Corps (JROTC); participating in political campaigns, government internships; Boys State, Girls State or Model General Assembly; and participating in the United States military prior to graduation will be deemed to have met this community service requirement.
  - ❖ Have good attendance and no disciplinary infractions as determined by local school board policies.
- **Board of Education’s Seal of Biliteracy** is awarded to students who earn a Board of Education-approved diploma and:
  - ❖ Pass all required End-of-Course Assessments in English reading and writing at the proficient or higher level
  - ❖ Demonstrate proficiency at the intermediate-mid level or higher in one or more languages other than English as demonstrated through an assessment from a list approved by the Superintendent of Public Instruction. American Sign Language qualifies as a language other than English.
- **Board of Education’s Seal for Excellence in Science & the Environment** is awarded to students who enter the ninth grade for the first time in the 2018-19 year and thereafter, and meet each of the following criteria:
  - ❖ Earn either a Standard or Advanced Studies Diploma
  - ❖ Complete at least three different first level board-approved laboratory science courses and at least one rigorous advanced-level or postsecondary-level laboratory

## 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](http://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](http://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](http://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, & 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](http://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  
English 11: Writing  
World History to 1500 AD

Algebra I  
Geometry  
Algebra II

World History after 1500 AD  
World Geography  
U.S. History

Earth Science  
Biology  
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](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**

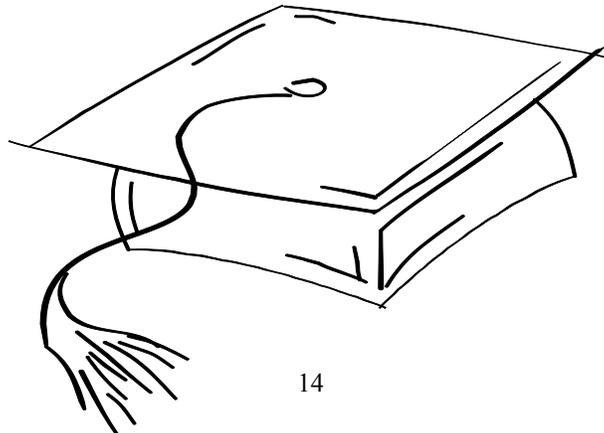
Generally, the high school English course a student is taking establishes his/her grade level. Thus, a student who is enrolled in English 9 is considered to be a Grade 9 student. For a student to be considered a senior or Grade 12 student, he/she must be able to include in his/her program for the year 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, <https://www.apsva.us/homebound-instruction>. 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. 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. 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 Teaching & Learning (Student Services) at 703-228-6061.

**Substance Abuse  
Counseling**

Arlington Public Schools provides information to students on substance abuse through the Health Program. The Department Teaching & Learning 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 school library is at the center of teaching and learning with the school community. The librarian curates' prints and digital resources for learning and independent reading, fostering the intellectual, emotional and social development of all students. Students are taught critical and creative thinking, communication, and collaboration skills so that they may become successful long users of information. The librarian maintains an up-to-date collection which may be accessed both at school and at home and reflects the curricular needs, developmental needs, and the social, cultural and ethnic diversity of all students.

School librarians instruct students in finding, evaluating and integrating information into a variety of learning experiences across all content areas. Students use print and digital library materials 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 special programs. School libraries have extended hours to enhance learning 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**

Student choice is the central focus of H-B Woodlawn's alternative secondary program. Students must decide how to use their time wisely to meet their obligations. The amount of unsupervised time increases gradually from grade 6 to grade 12. To make this offer of freedom work, the school trusts the good intentions of its students, and students learn to reciprocate with a sufficient degree of personal responsibility.

All students enter the program at H-B Woodlawn with varying degrees of independence and self-motivation. The programs faculty and staff work with students as individuals, in small groups, and as grade levels to empower them to have control over their educational program. Accordingly, students are responsible for their actions. In 1971, "a word to the wise is sufficient" was selected as the school motto to reflect the association of freedom with responsibility.

The H-B Woodlawn program adheres to three pillars, caring community, self-governance, and self-directed learning. Through student-led conferences, student-initiated electives and clubs, and weekly Town Meeting, where each student, teacher, and parent in attendance has an equal voice, the community works together to help all students develop and pursue their educational goals.

## **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. **Langston** also offers HILTEX classes for APS students who are seeking a high school diploma. 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 rigorous, project-based learning program that prepares students to succeed in college and in the workplace collaborative problem solving. Students learn how to effectively combine their interdisciplinary core academic knowledge with skills developed in Career Technical Education (CTE) classes to solve real-world problems and provide services to the local community.

Arlington Tech provides students with the opportunity to explore and become certified in a variety of CTE fields, jump start on college by earning Early College Credits through dual enrollment with Northern Virginia Community College. As a culmination of the project-based learning experience, Arlington Tech students will complete a year-long senior capstone project in which they would be employed as an intern, a consultant, or act as an independent researcher. Learning at Arlington Tech is active (through inquiry), authentic (through projects), and motivated by the students' interest.

The application period corresponds to the transfer application process.

For additional information regarding Career Center programs see page 73.

**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. See pages 7-8 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**

The collaboration model is the service delivery model for gifted services. Each high school has a full-time resource teacher for the gifted (RTG). Within the collaborative model, the RTG and teachers regularly plan for daily differentiation in a variety of ways: implementing curricular resources written for gifted learners; infusing strategies identified on the Critical and Creative Thinking Framework for ongoing rigor, depth and complexity to units and lessons; differentiating lessons using pre-assessments and curriculum compacting, flexible grouping, student voice and choice, tiered assignments, problem and project based learning, personalized learning, independent study and/or research projects.

Content differentiation is achieved by course selection at the high school level. High school students identified as gifted in academic areas and the arts are offered a variety of advanced/intensified courses including the IB Program at one high school and the AP courses offered at all four comprehensive secondary schools. In addition, students may participate in independent study for credit and/or dual enrollment in college courses. Students may also take advanced technical courses at the Career Center. APS provides full funding for eligible students to attend the regional academic-year Governor's School (Thomas Jefferson High School for Science and Technology).

The RTG may also directly serve identified students through specialized seminars, instructional and social-emotional support for cohorts of minority students working in advanced classes, application processes for summer opportunities to include the Summer Residential Governor's School program, PRIME and other projects developed at each school.

### **K-12 Countywide Opportunities**

There are countywide activities available to students identified for gifted services in academics and arts. These experiences are designed to extend school-based activities and respond to students' interests. Opportunities include

#### Academics:

- Course offerings at the Career Center (4–12)
- Regional Governor's School for the Gifted—Thomas Jefferson High School for Science & Technology (9–12)
- Independent Study for elective credit (10–12)
- P.R.I.M.E. (Professionally Related Internship/Mentorship Experience) (rising 11 & 12)
- Summer Residential Governor's School for Academics/Mentorships (rising 11 & 12)
- Summer Residential Governor's Foreign Language Academies (rising 11 & 12)
- Summer Superintendent's Seminar (rising 11 & 12)

#### Arts:

- Fine Arts Apprentice Program (Grades 10–12)
- Summer Residential Governor's School for Visual & Performing Arts (rising 11 & 12)
- Summer Superintendent's Seminar (rising 11 & 12)
- Arts area local, state, and national competitions (K–12) such as Reflections Contest (K–12), Scholastic Arts Awards (Grades 9–12), or District XII Solo/Ensemble Competitions (Grades 7–12)

Each high school holds a Gifted Services Information session(s) for parents sharing how services are implemented, the screening and referral process and/or enrichment opportunities beyond the school day and in the summer.

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## **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.

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### **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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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.

#### **Treble Chorus (29263)**

**Full year, one credit**

**Grade(s): 9-12**

*Prerequisite(s): None*

This course is designed to develop musicianship and vocal production specifically for soprano and alto voices. Open to all students regardless of experience or ability to explore choral literature for soprano and alto voices, ensemble singing and sight-reading. Particular attention will be paid to the developing treble 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.

#### **Basso Chorus (29266)**

**Full year, one credit**

**Grade(s): 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.

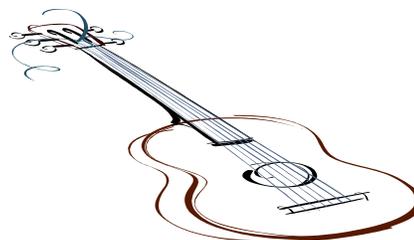
#### **Intermediate Band (29233)**

**Full year, one credit**

**Grade(s): 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****Grade(s): 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****Grade(s): 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****Grade(s): 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****Grade(s): 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****Grade(s): 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****Grade(s): 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****Grade(s): 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****Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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****Grade(s): 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****Grade(s): 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****Grade(s): 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****Grade(s): 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****Grade(s): 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****Grade(s): 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****Grade(s): 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 & Drawing (29163)****One semester, one-half credit****Grade(s): 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**

**Grade(s): 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.

### **Computer Graphics II (29153)**

**Full Year, one credit**

**Grade(s): 10-12**

*Prerequisite: Computer Graphics I*

Students apply creative program solving skills to commercial design problems including product image, branding, display, story, illustration, page and publication layout.

### **Computer Graphics III (29154)**

**Full Year, one credit**

**Grade(s): 10-12**

*Prerequisite: Computer Graphics I & II*

This is an advanced computer graphics course that will further expand on digital art skills learned in Computer Graphics I and II. This course provides students the skills to create designs that are digital fine art and commercial art focused. Students will learn advanced digital art techniques and will have an opportunity to explore a digital medium of choice to create a portfolio of work. This portfolio is a good foundation for students pursuing a 2-D digital AP portfolio.

### **Digital Photography I (29193)**

**Full year, one credit**

**Grade(s): 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 14 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**

**Grade(s): 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 14 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**

**Grade(s): 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 14 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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), Grade(s): 10-11**

**Fine Arts II (29291), Grade(s): 11-12**

*Prerequisite: Fine Arts I or permission of Instructor.*

**Fine Arts III (29292), Grade(s): 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 & 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, Trade and Industrial Education, and Technology Education. **CTE courses in these areas are also offered at Wakefield, Washington-Lee, Yorktown, Arlington Career Center/Arlington Tech, and within other CTE school-based programs. Reference Appendix C for a list of dual enrollment courses with school locations.**

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.

<b>Sequence Options at Wakefield, Washington-Lee, Yorktown High Schools, &amp; the Arlington Career Center</b>			
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.			
<b>I. Business and Communication</b>			
<b>Arts, A/V Technology &amp; Communications</b>	<u>Sequence Option 1:</u> Technology Computer Applications (26153) & Computer Information Systems (26614)	<u>Sequence Option 2:</u> Introduction to Information Technology (26116) & Computer Information Systems (26614)	<u>Sequence Option 3:</u> Introduction to Information Technology (26116) & Web Page Design Multimedia (26646)
<b>Business, Management &amp; Administration</b>	<u>Sequence Option 1:</u> Technology Computer Applications (26153) & Computer Information Systems (26614)	<u>Sequence Option 2:</u> Introduction to Business & Marketing (26112) & IB Business Management (36114)	<u>Sequence Option 3:</u> Introduction to Information Technology (26116) & IB Information Technology in a Global Society (36613)
<b>Information Technology</b>	<u>Sequence Option 1:</u> Introduction to Information Technology (26116) Web Page Design & Multimedia (26646)	<u>Sequence Option 2:</u> Introduction to Information Technology (26116) & Database Design & Management DE (96660W)	<u>Sequence Option 3:</u> Web Page Design & Multimedia DE (96646W); Database Design & Management DE (96660W)
<b>Computer Science</b>	<u>Sequence Option 1:</u> Computer Science (26639) & Computer Programming, Advanced (26643)	<u>Sequence Option 2:</u> Computer Science Principles, AP (33186) & Computer Science, AP (33185) or IB Computer Science Part I (36560) & Part II (36570)	<u>Sequence Option 3:</u> Computer Programming, DE (96638W) at the Career Center & Computer Programming, Advanced DE (96643W)
<b>Marketing</b>	<u>Sequence Option 1:</u> Entrepreneurship (99094W) DE & Entrepreneurship, Advanced (29095)	<u>Sequence Option 2:</u> Sports, Entertainment, and Recreation (28123) & Introduction to Business & Marketing (26112)	<u>Sequence Option 3:</u> Introduction to Fashion Careers (28147) & Entrepreneurship (99094W) DE
<b>II. Industry &amp; Engineering</b>			
<b>Science, Technology, Engineering &amp; Mathematics</b>	<u>Sequence Option 1:</u> Engineering I: Intro to Engineering Design (28491) & Engineering II: Principles of Engineering (28492)	<u>Sequence Option 2:</u> Engineering I: Intro to Engineering Design (28491) & Engineering II: Principles of Engineering (28492) & Engineering Capstone: Design & Development (28494)	<u>Sequence Option 3:</u> Computer Assisted Technical Drawing (98439W) DE & Computer Assisted Architectural Drawing (98408W) DE
<b>II. Health &amp; Human Services</b>			
<b>Agriculture, Food &amp; Natural Resources</b>	<u>Sequence Option 1:</u> Food & Fitness (28274) & Child Development & Parenting (28232)		
<b>Human Services</b>	<u>Sequence Option 1:</u> Child Development & Parenting (28232) & Early Childhood Education I (28235)	<u>Sequence Option 2:</u> Child Development & Parenting (28232) & Teachers for Tomorrow I (99062W) DE	<u>Sequence Option 3:</u> Teachers for Tomorrow I (99062W) DE & Teachers for Tomorrow II (29063)

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 74 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.

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## **BUSINESS & INFORMATION TECHNOLOGY (IT)**

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

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

***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 (Coding), and Computer Science. 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.

### **Computer Information Systems (26614)**

**Full year, one credit**

**Grade(s): 9-12**

*Prerequisite: none*

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.

### **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 & 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 10<sup>th</sup>- 12<sup>th</sup>. Reference the *Program of Studies* for additional course information.

### **Education for Employment Development, Year 1 (29087)**

**Full year, one credit**

**Grade(s): 9-12 (extended grades for students with IEP or students who access Special Ed. Services)**

*Prerequisite: none*

This course teaches students to make informed career and continuing education choices as they transition from school, gain technical skills, and adapt to the workplace. Students are taught ethical behaviors and career-research, job-acquisition, workplace-communication, self-awareness, self-advocacy, customer-service, and life skills. This course offers students integrated labor market needs through an applied employment education format.

### **Education for Employment Preparation, Year 2 (29088)**

**Full year, one credit**

**Grade(s): 9-12 (extended grades for students with IEP or students who access Special Ed. Services)**

*Prerequisite: Education for Employment Development, Year 1*

This course continues to advance the students workplace readiness and preparation skills, in preparation for on-the-job site work based learning. This course teaches students to make informed career and continuing education choices as they transition from school, gain technical skills, and adapt to the workplace. Students are taught ethical behaviors and career-research, job-acquisition, workplace-communication, self-awareness, self-advocacy, customer service, and life skills. This course offers students integrated labor market needs through an applied employment education format. (*Optional, opportunity for on-site work experience, which is based on the students’ age and work readiness and preparation*).

**Entrepreneurship (29094) (99094W)**  
**Arlington Student Enterprise Program**  
**Full year, one credit + 1.0 quality point**  
**Grade(s): 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 BUS 116 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**  
**Grade(s): 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**  
**Grade(s): 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.

**Technology Computer Applications (26153)**  
**Full year, one credit**  
**Grade(s): 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 21<sup>st</sup> 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.

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

**Web Page Design & Multimedia (26646)**  
**Full Year, one credit + 1.0 quality point**  
**Grade(s):9-12**

*Prerequisite: None*

Students develop proficiency in designing and creating desktop-published projects, multimedia presentations/projects, and Web sites using industry-standard application software. Students apply principles of layout and design in completing projects. Students create portfolios that include a resume and a variety of desktop-published, multimedia, and Web-site projects produced in the course.



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## 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** **Grade(s): 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 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** **Grade(s):10-12**

*Prerequisite: Completion of Computer Science I 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** **Grade(s): 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.*

### **Computer Programming Advanced (26643)** **Full year, one credit +1.0 quality point** **Grade(s): 9-12**

*Prerequisite: Investigative Computer Science (16640) or year I of Computer Science (26639)*

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.



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## FAMILY & CONSUMER SCIENCES

*All courses qualify for the Career & Technical/Fine Arts credit (full year-one credit, half-year-half credit)  
Students-selected verified credit can be earned by passing the course related industry certification*

### **Child Development & 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 & Parenting - Year (28232)**

**Full year, one credit**

**Grade(s): 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 & Fitness – Semester (28272)**

**One semester, one-half credit**

**Grade(s): 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 & Fitness – Year (28274)**

**Full year, one credit**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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 12<sup>th</sup> 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 EDUC 201 for a total of 4 credits pending acceptance to Shenandoah University. This course may be dual-enrolled at Northern Virginia Community College (NOVA) as EDU 200, Intro to Teaching as a Profession. 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.*

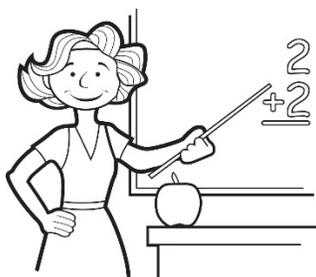
### **Teachers for Tomorrow II (29063)**

**Full year, one credit**

**Grade(s): 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.



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## **MARKETING**

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

*Students-selected verified credit can be earned by passing the course related industry certification*

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 & Marketing (26112)**

**Full year, one credit**

**Grade(s): 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, & Recreation Marketing (28123)**

**Full year, one credit**

**Grade(s): 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,

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## 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.*

*Students-selected verified credit can be earned by passing the course related industry certification*

### **Computer Assisted Technical Drawing (28439) (98439W)**

**Full year, one period, one credit + 1.0 quality point  
Grade(s): 10-12**

*Prerequisite(s): 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) 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 Assisted Architectural Drawing (28408) (98408W)**

**Full year, one period, one credit + 1.0 quality point  
Grade(s): 10-12**

*Prerequisite(s): Computer Assisted Technical Drawing (28439)*

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 ARC 123 & ARC 124 for a total of 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.*

### **Computer Assisted Engineering Drawing (28438) (98438W)**

**Full year, one period, one credit + 1.0 quality point  
Grade(s): 9-12**

*Prerequisite: Computer Assisted Technical Drawing (28439)*

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 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.*

### **Advanced Drawing & Design (28440)**

**Full Year, one credit**

**Grade(s): 10-12**

*Prerequisite: Computer Assisted Engineering (28438) Drawing or Computer Assisted Architectural Drawing (28408)*

Students use a graphic language for product design and technical illustration. They increase their understanding of drawing techniques learned in the prerequisite courses. They research design-related fields while identifying the role of advanced drawing and design in manufacturing and construction industry processes. They apply the design process, analyze design solutions, reserve engineer products, create 3-D solid models using CADD, construct physical models, and create multimedia presentations of

finished designs. They complete a work portfolio based on a chosen graphic project.

### **Engineering I: Intro to Engineering Design (28491)**

**Full year, one credit**

**Grade(s): 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**

**Grade(s): 10-12 & Arlington Tech students starting in the 9<sup>th</sup> grade**

*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 Capstone: Design & Development (28494)**

**Full year, one credit**

**Grade(s): 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

### **Introduction to Game Design (28461)**

**Full year, one credit**

**Grade(s): 10-12**

*Prerequisite: None*

Students will explore the use of modeling, simulation, and game development software to solve real-world problems in science, technology, engineering designs, modeling geospatial data, observing and analyzing physics simulations, programming games for educational purposes, and creating visualization systems with 3D models, including augmented and

virtual reality, and artificial intelligence (AI). Students will develop an understanding of the systems, processes, tools, and implications of the field of modeling and simulation technology.

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## **DRIVER EDUCATION & 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 & Safety (27010)**

**First semester, one-half credit**

### **Driver Education & Safety (27011)**

**Second semester, one-half credit**

**Grade(s): 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 14 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.*

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## 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) & World History (22343), Intensified**

#### **Full year, two periods, two credits (one credit in English & 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 & Composition, AP (31196)**

#### **Full year, one credit + 1.0 quality point**

#### **Grade(s): 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**

**Grade(s): 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 & Composition, AP (31195)**

**Full year, one credit + 1.0 quality point**

**Grade(s): 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 & Strategies of Reading (21180)**

**Full year, one credit**

**Grade(s): 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****Grade(s): 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****Grade(s): 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 & Technical/Fine Arts credit requirement for graduation.*

**Dynamic Communication (21517)****One semester, one-half credit****Grade(s): 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****Grade(s): 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****Grade(s): 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****Grade(s): 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****Grade(s): 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.



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## HEALTH & 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(s): 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 & Physical Education (27330)**

**Washington-Lee and Wakefield only**

**Full year, one credit**

**Grade(s): 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 & Physical Education I (27300)**

**Full year, one credit**

**Grade 9**

*Prerequisite: None*

This course integrates a variety of health knowledge skills, and behaviors and provides students an opportunity to physically demonstrate their knowledge and skills in a variety of lifetime activities. Students will identify health resources and become advocates for a healthy lifestyle for themselves, family and community. Students will demonstrate their knowledge to include 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. Instruction will show the importance of energy balance and nutrition. Students will plan fitness goals and understand principles of exercise physiology, biomechanics and anatomy to improve their personal fitness.

### **Health and Physical Education II (27400)**

**Full year, one credit**

**Grade(s): 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**

**Grade(s): 11-12**

### **Physical Education IV (27610)**

**First semester; (27615) Second semester**

**One semester, one-half credit**

**Grade(s): 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

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## 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**

**Grade(s): 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*)

**24501 HILT Principles of Physics** (*Science credit*)

**20786 HILT A English** (*English credit*)

**20787 HILT A Reading** (*elective credit*)

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

**20789 HILT A Social Studies** (*elective credit*)

**22446 HILT US/VA Government** (*Social Studies 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 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**

**Grade(s): 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*)

**22345 World History & Geography** (*Social Studies credit*)

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## 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

Grade(s): 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

Grade(s): 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

Grade(s): 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

Prerequisite: None

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

Grade(s): 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.*

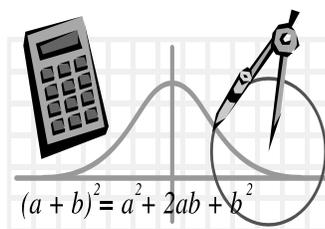
### Algebra I (23130)

Full year, one credit

Grade(s): 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****Grade(s): 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.

**Algebra, Functions & Data Analysis (23145)****Full Year, one credit****Grade(s): 11-12***Prerequisite: Algebra I*

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****Grade(s): 10-12***Prerequisite: Grade "C" or better in Algebra I (or Algebra I Intensified) and Geometry (or Geometry, Intensified)*

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****Grade(s): 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.*

**Algebra III (23155)****Full year, one credit****Grade(s): 10-12***Prerequisite: Grade "A" in Algebra II, Principles and teacher recommendation, 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.

**Strategies, Algebra II (23126)****Full year, one elective credit****Grade(s): 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.

**Geometry (23143)****Full year, one credit****Grade(s): 9-12***Prerequisite: Grade "C" or better in Algebra I Intensified, 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****Grade(s): 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****Grade(s): 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****Grade(s): 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.

**Remedial Independent Self-Paced Education (RISE) Algebra (20203)****(RISE) Geometry (20204)****One semester, one-half elective credit****Grade(s): 11-12***Prerequisite: Students have passed the corresponding class but failed the SOL assessment 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.*

**Pre-Calculus/Trigonometry (23162)****Full year, one credit****Grade(s): 11-12***Prerequisite: Grade "C" or better in Mathematical Analysis - Trigonometry or Algebra II, Intensified or Grade "A" in Algebra II and teacher recommendation*

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.

**Pre-Calculus, Intensified (23164)****Full year, one credit****Grade(s): 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 Pre-Calculus (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 & Statistics (23190)****Full year, one credit****Grade(s): 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**

**Grade(s): 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. (23192)*

### **Calculus AB, AP (33177)**

**Full year, one credit, + 1.0 quality point**

**Grade(s): 10-12**

*Prerequisite: Grade "C" or better in Pre-Calculus, Intensified, and teacher recommendation. Grade "B" or better in Pre-Calculus 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**

**Grade(s): 10-12**

*Prerequisite: Grade "B" or better in Pre-Calculus, Intensified, and teacher recommendation or grade "A" in Pre-Calculus 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**

**Grade(s): 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 or other qualifying English score*

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 MTH 265 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(s): 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 or other qualifying English score*

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 MTH 265*

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(s): 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 or other qualifying English score*

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.

- **College credit:** *This semester course is dual-enrolled at Northern Virginia Community College (NOVA) as MTH 266 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(s):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 or other qualifying English score*

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 MTH 267 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.*

### **Quantitative/Qualitative & Statistical Analysis (93166W)**

**Full year, one credit, + 1.0 quality point**

**Grade(s): 12**

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

This dual-enrollment course with NOVA's MTH 154 & MTH 155 Presents topics in proportional reasoning, modeling, financial literacy and validity studies (logic and set theory). Focuses on the process of taking a real-world situation, identifying the mathematical foundation needed to address the problem and applying what is learned to the original situation. In addition, this course includes elementary statistical methods and concepts including visual data presentation, descriptive statistics, probability, estimation, hypothesis testing, correlation and linear regression. Emphasis is placed on the development of statistical thinking, simulation, and the use of statistical software.

- **College credit:** *This course is dual-enrolled at Northern Virginia Community College (NOVA) as MTH 154 & MTH 155 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.*

### **Quantitative Analysis (93167W)**

**Full year, one credit, + 1.0 quality point**

**Grade(s): 12**

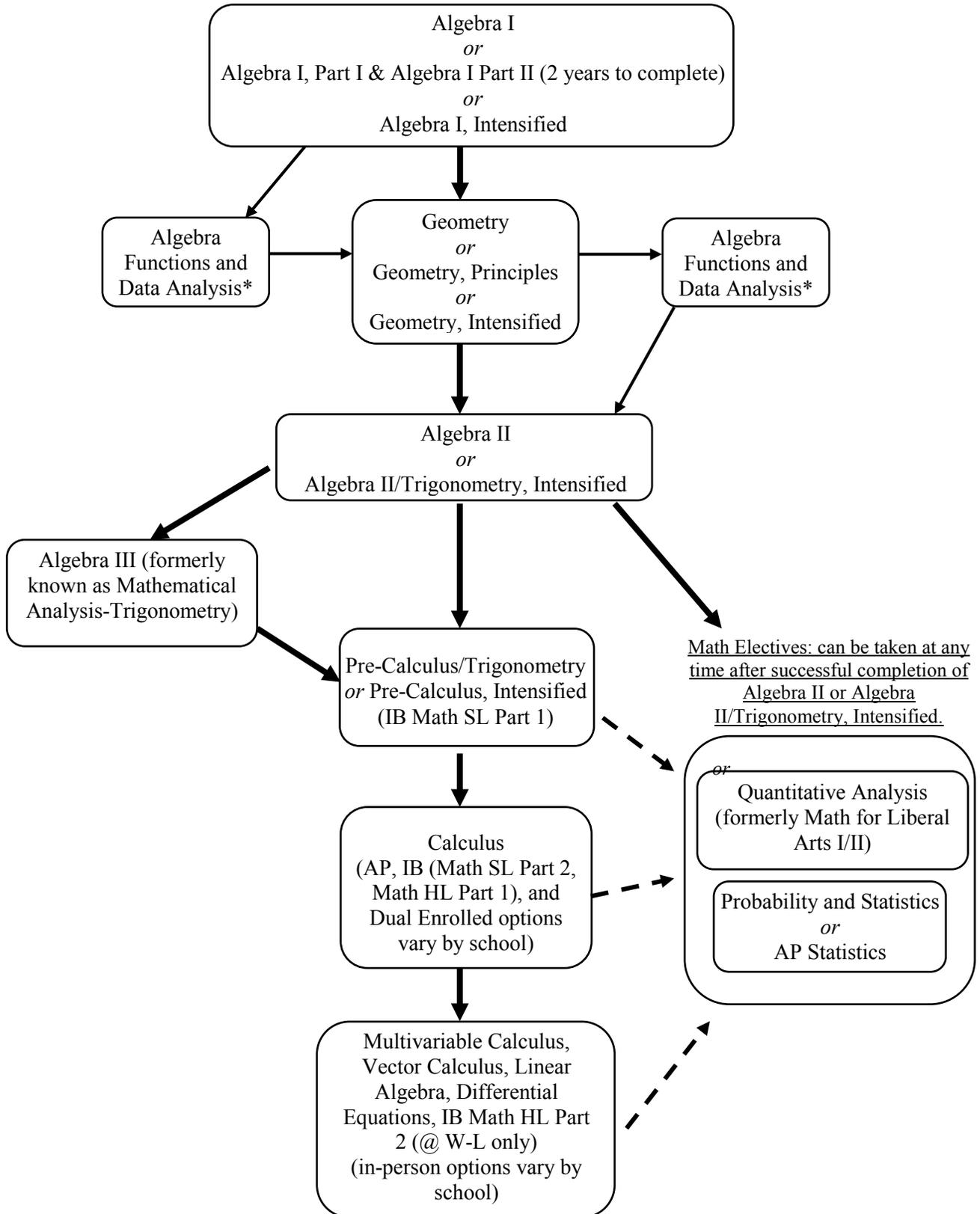
*Prerequisite: Qualifying score on the NOVA placement exam; Grade "C" or higher in Algebra, Geometry, Functions, and Data Analysis or Algebra II*

This dual enrollment course with NOVA's MTH 154 Presents topics in proportional reasoning, modeling, financial literacy and validity studies (logic and set theory). Focuses on the process of taking a real-world situation, identifying the mathematical foundation needed to address the problem, solving the problem and applying what is learned to the original situation.

- **College credit:** *This course is dual-enrolled at Northern Virginia Community College (NOVA) as MTH 154 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' Math Course Pathways from Algebra I and on (2019-2020)

Students will enter these pathways when enrolled in any Algebra I course (which will occur at different grade levels). There are multiple pathways and courses that students may take depending upon their readiness. Please see specific course descriptions for prerequisite requirements



For specific IB and Dual Enrolled courses not mentioned here, please see the index of courses offered at individual high schools. Students needing additional support may be concurrently enrolled in Algebra I, Geometry, or Algebra II and a Strategies course.

\*AFDA may be taken after Algebra I and before Geometry OR after Geometry and before Algebra II in high school only.

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## 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**

**Grade(s): 10-12**

*Prerequisite: HILT or placement test at the LSRC*

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**

**Grade(s): 9-12**

*Prerequisite: None*

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(s): 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. In addition, students will complete an independent experimental or engineering design project. *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)**

**Grade(s): 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**

**Grade(s): 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.

**Ecology (24365)****Full year, one credit****Grade(s): 10-12***Prerequisite(s): Successful completion of Biology*

This course is designated to build on biological concepts that focus on the relationship and interactions between organisms and their environment. Topics include the flow of matter and energy in biotic and abiotic components of an ecosystem, geochemical processes (carbon, nitrogen, phosphorus, and oxygen cycles), chemical and biochemical processes essential for life, water on life processes, and processes and interactions of Earth systems.

**Environmental Science (24361)****Full year, one credit****Grade(s): 9-12***Prerequisite: None*

This is an interdisciplinary course, with a focus on the environment and humans' impact on our planet. Topics include scientific inquiry, the physical world, the living environment, resource conservation, and legal and civic responsibility. Laboratory and field experiences are an important component of this course and are designed to stimulate critical thinking as well as reinforce and expand content. *This course may count as either Biology or Earth Science credit.*

**HILT Environmental Science (24362)****Full year, one credit****Grade(s): 9-12***Prerequisite: HILT or placement test at the LSRC*

The course is designed to be an introduction to the important ideas of environmental science. Topics will be dealt with on a conceptual level and will include scientific inquiry, the physical world, the living environment, resource conservation, and legal and civic responsibility. Laboratory and field experiences are an important component of this course and are designed to stimulate critical thinking as well as reinforce and expand content. *This course may count as either Biology or Earth Science credit.*

**Chemistry (24410) Laboratory course****Full year, one credit****Grade(s): 10-12***Prerequisite: Successful completion of Algebra I or equivalent course*

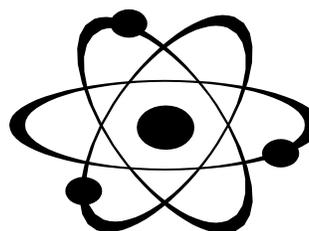
The primary goal is to give students a broad introduction to the fundamental aspects of chemistry, which could be applied to future studies in chemistry or to daily life. Concepts are reinforced through numerous laboratory activities. *There is an end-of-course SOL Examination. Passing the SOL test and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

**Intensified Chemistry (24415) Laboratory course****Full year, one credit****Grade(s): 10-11***Prerequisite: 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. In addition, students will complete an independent experimental or engineering design project. *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)****Grade(s): 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****Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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. In addition, students will complete an independent experimental or engineering design project. *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**

**Grade(s): 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.

**HILT Physics, Principles of (24501) Laboratory course**

**Full year, one credit**

**Grade(s): 9-12**

*Prerequisite: HILT or placement test at the LSRC*

The course is designed to be an introduction to the important ideas in physics. Topics will be dealt with on a conceptual level. Emphasis will be placed on motion, forces, momentum, energy, heat, light, electricity, and magnetism.

**Physics (24510) Laboratory course**

**Full year, one credit**

**Grade(s): 10-12**

*Prerequisite: Successful completion of Algebra I 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**

**Grade(s): 11-12**

*Prerequisite: 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. In addition, students will complete an independent experimental or engineering design project.

**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)**

**Grade(s): 11-12**

*Prerequisite: Successful completion or concurrent enrollment in Pre-Calculus or Math-Analysis/Trigonometry or completion of Physics or Intensified 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**

**Grade(s): 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)**

**Grade(s): 11-12**

*Prerequisite: Successful completion or concurrent enrollment in Pre-Calculus or Math-Analysis/Trigonometry or completion of Physics or Intensified 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**

**Grade(s): 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 & 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(s): 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**

**Grade(s): 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**

**Grade(s): 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 & Applications (28467)**

**Full year, two credits**

**Grade(s): 10-12**

*See page 79 for description of this course.*

**Emergency Medical Technician/Basic Human  
Anatomy & Physiology (98334W)**

**Full year, two periods, two credits + 1.0 quality  
point**

**Grade(s): 10-12**

*See page 86 for description of this course.*

**Physical Therapy/Sports Medicine Technology  
(28332)**

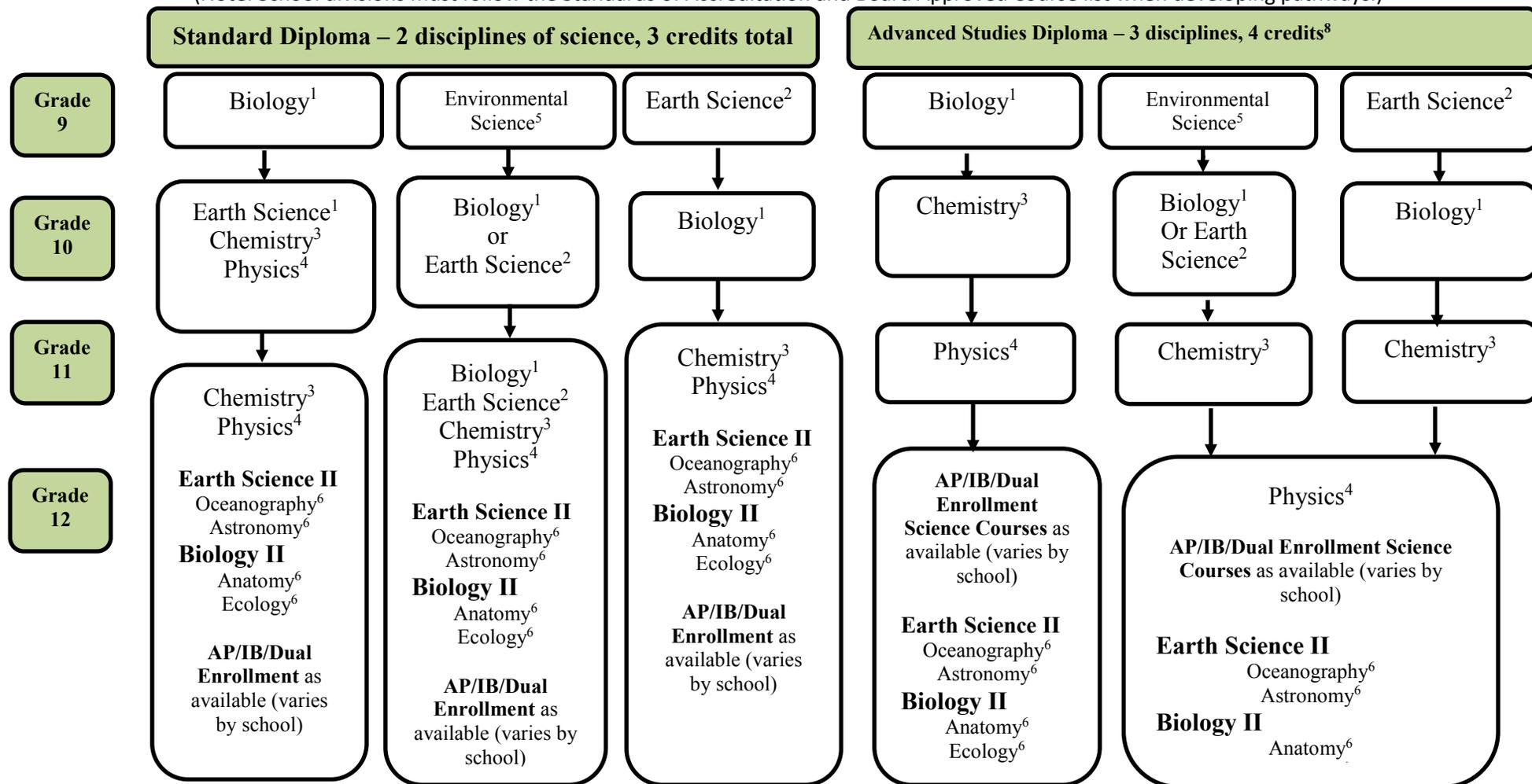
**Full year, two periods, two credits (Optional: 105  
clinical hours for three credits)**

**Grade(s): 10-12**

*See page 89 for description of this course.*

## Suggested Science Course Sequences

(Note: School divisions must follow the Standards of Accreditation and Board Approved Course list when developing pathways.)



NOTES: Some courses have pre or co-requisites. Additional Science courses offered at the Career Center may fulfill science graduation credits. Please see the individual Science Course descriptions.

### Science Course Footnotes (non AP/IB courses)

<sup>1</sup>Courses in Biology include: Biology (24310), Standard Biology (24312), Intensified Biology (24315), HILTEX Biology (24317) and Biology Part 1 and Part 2 (which are available for students with credit accommodations, see footnote 7)

<sup>2</sup>Courses in Earth Science include: Earth Science (24210), Intensified Earth Science (24215) and Earth Science Part 1 and Part 2 (which are available for students with credit accommodations, see footnote 7)

<sup>3</sup>Courses in Chemistry include: Chemistry (24410), Intensified Chemistry (24415)

<sup>4</sup>Courses in Physics include: Physics (24510), Principles of Physics (24500), HILT Principles of Physics (24501) and Intensified Physics (24515)

<sup>5</sup>Courses in Environmental Science include: Environmental Science (24361) and HILT Environmental Science (24362)

<sup>6</sup>The prerequisite content for these courses is the first-level SOL core course in this discipline. Students who have not taken the first level course in this discipline are required to take the corresponding SOL test

<sup>7</sup>The Board of Education's Guidelines on Credit Accommodations allow students with disabilities who are eligible for credit accommodations in science to use each part of Earth Science, Parts 1 and 2, and Biology, Parts 1 and 2, to earn a standard credit towards the three science credits required for the Standard Diploma only. A student who chooses to earn standard credits by taking the Earth Science and Biology in two parts must complete *both* parts of both courses to meet the minimum course requirements, and would earn three standard credits in science plus one additional elective credit. Two-part courses may also be combined with full-year courses in other Board-approved science courses to meet the requirements.

<sup>8</sup>It is highly recommended that students planning to apply or attend college take four science courses to include Biology, Chemistry, and Physics

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## 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) & 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) & World History (22343), Intensified

**Full year, two periods, two credits (one credit in English & 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. *There is an end-of-course SOL Examination. Only students who are in need of a verified credit in Social Studies are eligible to take the SOL exam.*

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

**Full year, one credit**

**Grade(s): 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. *There is an end-of-course SOL Examination. Only students who are in need of a verified credit in Social Studies are eligible to take the SOL exam.*

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

**Full year, one credit**

**Grade(s): 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. *There is an end-of-course SOL Examination. Only students who are in need of a verified credit in Social Studies are eligible to take the SOL exam.*

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

**Full year, one credit**

**Grade(s): 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, 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. There is an end-of-course SOL Examination. Only students who are in need of a verified credit in Social Studies are eligible to take the SOL exam.*

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

**Full year, one credit**

**Grade(s): 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 fulfills a requirement for the Advanced Studies Diploma and serves as an elective for the Standard Diploma. There is an end-of-course SOL Examination. Only students who are in need of a verified credit in Social Studies are eligible to take the SOL exam.*

### **Economics & Personal Finance (22212)**

**Full year, one credit**

**Grade(s): 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. Consult with your guidance counselor for more information.*

### **Virtual Economics & Personal Finance**

**Full year or semester block, one credit (22212V)**

**Grade(s): 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. These semester block of the course will include the 140 hours of the full year version. *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. Consult your guidance counselor for more information.*

### **Economics & Personal Finance (HILT) (22213)**

**Full year, one credit**

**Grade(s): 9-12**

*Prerequisite: None*

This course explores the general scope of economics & 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. Consult with your guidance counselor for more information.*

#### **United States & 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 & Virginia History (22360)**

**Full year, one credit**

**Grade(s): 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. Only students who are in need of a verified credit in Social Studies are eligible to take the SOL exam.*

#### **United States & Virginia History, AP (32319)**

**Full year, one credit + 1.0 quality point**

**Grade(s): 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. Only students who need a verified credit are eligible to sit for the exam. Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point. (22319)*

#### **Virtual US & Virginia History**

**Full year or semester block, one credit (22360V)**

**Grade(s): 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. The semester block of the course will include the 140 hours of the full year version. *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. Only students who are in need of a verified credit in Social Studies are eligible to take the SOL exam.*

#### **United States & Virginia Government**

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

#### **(22440) United States & Virginia Government**

#### **(22440V) Virtual United States & Virginia Government**

#### **(22446) HILT US/VA Government**

#### **(32445) United States & Virginia Government, AP**

**(92240W) United States & Virginia Government, Dual Enrollment**

**United States & Virginia Government (22440)**

**Full year, one credit**

**Grade(s): 12**

*Prerequisite: None*

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.

**Virtual United States & Virginia Government**

**Full year or semester block, one credit (22440V)**

**Grade(s): 12**

*Prerequisite: None*

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. The semester block of the course will include the 140 hours of the full year version. *This course will be taught in a virtual format thereby satisfying the online graduation requirement for a virtual course.*

**HILT United States & Virginia Government (22446)**

**Full year, one credit**

**Grade(s): 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 & Virginia Government, AP (32445)**

**Full year, one credit + 1.0 quality point**

**Grade(s): 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. (22445)*

**United States & Virginia Government, Dual Enrollment (92240W)**

**Full year, one credit + 1.0 quality point**

**Grade(s): 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 (NOVA) as PLS 211 & PLS 212 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****Grade(s): 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. Only students who are in need of a verified credit in Social Studies are eligible to take the SOL exam. 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****Grade(s): 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****Grade(s): 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 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. (22400) \* Yorktown High School offers this course in Grades 10 - 12 only.*

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**SOCIAL STUDIES ELECTIVE COURSES**
**European History, AP (32399)****Full year, one credit + 1.0 quality point****Grade(s):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****Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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.

### **Psychology, AP (32902)**

**Full year, one credit + 1.0 quality point**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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 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.

## 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.				
<b>Grade 9</b>	<ul style="list-style-type: none"> <li>World History &amp; Geography: 1500 AD to the present (22216) or English 9 &amp; World History &amp; Geography: 1500 AD to the present (Yorktown Only) (22216/21130) or World History Intensified (22343)</li> </ul>	<ul style="list-style-type: none"> <li>World History &amp; --Geography: 1500 AD to the present (HILTEX) (22345)</li> </ul>	<ul style="list-style-type: none"> <li>World History Intensified(22343) or World History &amp; --Geography: 1500 AD to the present (HILTEX) (22345) or World History AP (W-L &amp; Wakefield Only) (32400)</li> </ul>	<ul style="list-style-type: none"> <li>World History AP (W-L &amp; Wakefield only) (32400)</li> </ul>	<ul style="list-style-type: none"> <li>US/VA Part. 1 (IEP only) **</li> </ul>
<b>Grade 10</b>	<ul style="list-style-type: none"> <li>Economics &amp; Personal Finance (22212) Virtual Economics &amp; Personal Finance (22212V), HILT Economic &amp; Personal Finance (22213) or AP Economics (32806) (Wakefield &amp; Yorktown only)</li> <li>World History &amp; Geography: Beginnings to 1500 AD (22215) or World History &amp; Geography: Beginnings to 1500 AD (22219) Intensified</li> <li>Human Geography, AP (32212)</li> <li>Introduction to Law (22218)</li> <li>Psychology (22900)</li> <li>Leadership Skills for Diversity (22700)</li> <li>Psychology, AP (32902)</li> <li>Sociology (22500)</li> <li>World Affairs (22388)</li> </ul>	<ul style="list-style-type: none"> <li>Economics &amp; Personal Finance (22212) Virtual Economics &amp; Personal Finance (22212V), HILT Economic &amp; Personal Finance (22213) or AP Economics (32806) (Wakefield &amp; Yorktown only)</li> <li>World History &amp; Geography: Beginnings to 1500 AD (22215) or World History &amp; Geography: Beginnings to 1500 AD (22219) Intensified</li> <li>Human Geography, AP (32212)</li> <li>Introduction to Law (22218)</li> <li>Psychology (22900)</li> <li>Leadership Skills for Diversity (22700)</li> <li>Psychology AP (32902)</li> <li>Sociology (22500)</li> <li>World Affairs (22388)</li> </ul>	<ul style="list-style-type: none"> <li>AP Government (Pre-IB Students only at WL) (32445)</li> </ul>	<ul style="list-style-type: none"> <li>AP Economics (32806) (Wakefield &amp; Yorktown only)</li> <li>AP European History (32399)</li> </ul>	<ul style="list-style-type: none"> <li>US/VA Part. 2 (IEP only)**</li> </ul>
<b>Grade 11</b>	<ul style="list-style-type: none"> <li>US/VA History (22360), Virtual US/VA History (22360V) or American Civilization (22375) &amp;</li> <li>Economics &amp; Personal Finance (22212)</li> <li>Human Geography, AP (32212)</li> <li>Introduction to Law (22218)</li> <li>Leadership Skills for Diversity (22700)</li> <li>Psychology (22900) or Psychology, AP (32902)</li> <li>Sociology (22500)</li> <li>World Affairs (22388)</li> </ul>	<ul style="list-style-type: none"> <li>US/VA History (22360), Virtual US/VA History (22360V), or AP US History (32319) or American Civilization (22375) &amp;</li> <li>Human Geography, AP (32212)</li> <li>Introduction to Law (22218)</li> <li>Psychology (22900) or Psychology, AP (32902)</li> <li>Leadership Skills for Diversity (22700)</li> <li>Sociology (22500)</li> <li>World Affairs (22388)</li> </ul>	<ul style="list-style-type: none"> <li>IB History of the Americans HL Part I (32385) &amp;</li> <li>IB Economics SL (32802)</li> <li>IB Geography SL (32210)</li> <li>IB Psychology SL (32901) HL Part I (32904)</li> <li>IB Philosophy SL (32600)</li> <li>IB Social Anthropology SL (32372) HL Part I (32374)</li> </ul>	<ul style="list-style-type: none"> <li>AP US History (32319)</li> </ul>	<ul style="list-style-type: none"> <li>Personal Living &amp; Finance (20055) (IEP Only)**</li> </ul>
<b>Grade 12</b>	<ul style="list-style-type: none"> <li>US/VA Govt. (22440), Virtual USVA Govt. (22440V), HILT A US/VA Govt. (22446) or US/VA Govt DE (92240W) &amp; Economics &amp; Personal Finance (22212)</li> <li>Introduction to Law (22218)</li> <li>Leadership Skills for Diversity (22700)</li> <li>Psychology (22900) or Psychology, AP (32902)</li> <li>Sociology (22500)</li> <li>World Affairs (22388)</li> </ul>	<ul style="list-style-type: none"> <li>US/VA Govt. (22440), Virtual USVA Govt. (22440V), HILT US/VA Govt. (22446), AP US/VA Govt. (32445), US/VA Govt DE (92240W) &amp;</li> <li>Introduction to Law (22218)</li> <li>Leadership Skills for Diversity (22700)</li> <li>Psychology (22900) or Psychology, AP (32902)</li> <li>Sociology (22500)</li> <li>World Affairs (22388)</li> </ul>	<ul style="list-style-type: none"> <li>IB Topics in 20<sup>th</sup> Century World History HL part 2 (32386)</li> <li>IB Economics SL (32802)</li> <li>IB Psychology SL (32901) HL Part II (32904)</li> <li>IB Philosophy (32600)</li> <li>IB Geography SL (32210)</li> <li>IB Social Anthropology SL (32372) Part II (32377)</li> </ul>	<ul style="list-style-type: none"> <li>AP US/VA Govt. (32445) or AP US/VA Govt. &amp; Comparative Govt. (32245) or US/VA Govt DE (92240W)</li> <li>&amp; AP Psychology (32902)</li> </ul>	<ul style="list-style-type: none"> <li>US/VA Govt. (20018) (IEP only) **</li> </ul>

\*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 & Personal Finance to fulfill graduation requirements for a Standard or Advanced Diploma.

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## SPECIAL EDUCATION

Special Education consists of services for students with a disability who require specially designed instruction. 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 & 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 working toward an Applied Studies Diploma, or 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 an Applied Studies Diploma or 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 exam.*

### **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 are in need of additional reading support and strategies to support overall academic performance, and 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 focused on the improvement of reading and will use materials that will help students with reading in their other courses.

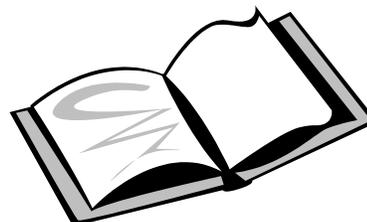
### **Algebra I Part I (20008)**

#### **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 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 a standard diploma with credit accommodations. The content of the Algebra I course (23130) is covered with the Algebra I SOL exam given upon completion of Part II. Passing the SOL exam earns verified credit.



### **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 working toward an applied studies diploma or students who entered Grade 9 prior to 2013-2014 and may be 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 an Applied Studies Diploma or a Modified Standard Diploma will receive mathematics credit upon successful completion of this course. *There is no end-of-course SOL examination.*

### **Personal Living & 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 working toward an Applied Studies Diploma or students who entered Grade 9 prior to 2013-2014 and who may be 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. Students who participate in the 21 Workplace Readiness Skills (WRS) for the Commonwealth, as a part of this course with successful completion of the WRS Assessment may be considered for Credit Accommodations toward a Standard Diploma.

### **World Geography (20040)**

#### **Full year, one credit**

#### **Grade(s): 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 Studies and Standard Diploma 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 & 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 first semester of general education World History & Geography: 1500 AD to the Present (22216) course, with pacing materials and teaching/learning strategies adapted for students with disabilities. *Students who are working toward an Applied Studies Diploma or a Modified Standard Diploma will receive a social studies credit upon successful completion of this course. Students who are seeking a Standard Diploma with credit accommodations must go on to complete World History and Geography 1500 AD to the Present, Part II in order to earn a social studies credit for this course. There is no end-of-course SOL examination.*

### **World History & 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 & Virginia History, Part I (20016)**

#### **Full year, one elective credit upon completion of US/VA History, Part II**

#### **Grade(s): 9-12**

*Prerequisite: Successful completion of World Geography or World History, 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. Pacing materials and teaching/learning strategies will be adapted to students reading skill development. Students working toward a Standard Diploma with credit accommodations will earn a social studies credit for this course when they go on to take Part II of this course. This is no end-of-course SOL Examination for this course.

### **United States & Virginia History, Part II (20019)**

**Full year, one social studies credit**

**Grade(s): 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. Pacing materials and teaching/learning strategies will be adapted for students reading skill development. There is an end-of-course SOL Examination covering content from US/VA History Part I and US/VA History Part II. Passing the SOL test and the course earns a verified credit.

### **United States History, Applications (20053)**

**Full year, one credit**

**Grade(s): 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 an Applied Studies Diploma or 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 & 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 & 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 & Space Science (24211)**

**Full year, one credit**

**Grade(s): 10-12**

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

*This course is an option for students working toward an applied studies diploma or students who entered Grade 9 prior to 2013-2014 and who may be 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 course 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 an Applied Studies Diploma or 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 an Applied Studies Diploma or 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****Grade(s): 10-12**

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

This course is an option for students working toward an Applied Studies Diploma or students who entered Grade 9 prior to 2013-2014 and who may be 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****Full year, one credit (20028)****Semester, one-half credit (20030)**

*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****Grade(s): 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.

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**FUNCTIONAL ACADEMICS**

The following classes are offered in a setting called the Functional Life Skills setting. 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****Grade(s): 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.

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

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.



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## WORLD LANGUAGES

Students in 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 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 state approved credit-by-Exam assessment has been taken and the student has demonstrated proficiency levels that may 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 (ASL) meets public Virginia university and community college entrance requirements as a world language. Some out-of-state post-secondary institutions do not recognize ASL as a world language.**

### American Sign Language I (25990)

**Full Year, one credit**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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.

### **American Sign Language IV (25992)**

**Full Year, one credit**

**Grade(s): 9-12**

*Prerequisite: Successful completion of ASL III 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 specific fine-tuning strategies which will help them reach the next level with their ASL skills and prepare them for college-level ASL courses, as well as prepare them for possible careers involving ASL. Topics include literary works, deaf art, current events and issues within the Deaf community. Students will deepen their understanding of the Deaf World through a storytelling lens with a brief taste of the ASL interpreting process. Through a more involved study of ASL roots and linguistics, notably classifiers and parameters, students will gain better understanding of the language while comparing it with their native language. Students will be encouraged to use ASL both within and beyond the school setting. In addition to this, they will collaborate with their ASL IV peers from another high school. For example, students will participate in a Deaf literature book club, reading outside of class. They will return to the classroom where they will share in ASL with each other their newfound knowledge.

**One or more levels of Arabic may be delivered through distance learning technologies. In some locations, Arabic may be available only through online courses by outside providers.**

### **Arabic I (25800)**

**Full Year, one credit**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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 only through online courses by outside providers.**

#### **Chinese I (25615)**

**Full Year, one credit**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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 & Culture, AP (35860)**

**Full year, one credit**

**Grade(s): 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 (25860).*

#### **French I (25110)**

**Full year, one credit**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**  
**Grade(s): 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**  
**Grade(s): 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*

**Grade(s): 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 & Culture, AP (35165)**  
**Full year, one credit + 1.0 quality point**  
**Grade(s): 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 only through online courses by outside providers.**

**German I (25210)**  
**Full year, one credit**  
**Grade(s): 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**  
**Grade(s): 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****Grade(s): 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****Grade(s): 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 & Culture, AP (35235)****Full year, one credit + 1.0 quality point****Grade(s): 9-12***Prerequisite: 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****Grade(s): 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****Grade(s): 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****Grade(s): 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 be available only through online courses by outside providers.**

**Latin I (25310)**

**Full year, one credit**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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.)*

**Grade(s): 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.)*

**Grade(s): 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 (25351).*

**Advanced Studies in Latin (25360)**

**Full year, one credit**

**Grade(s): 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**  
**Grade(s): 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**  
**Grade(s): 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**  
**Grade(s): 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**  
**Grade(s): 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**  
**Grade(s): 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**  
**Grade(s): 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. Upon successful completion of Spanish for Fluent Speakers III, students are encouraged to enroll in Spanish Language and Culture, AP.

**Spanish IV (25540)**  
**Full year, one credit**  
**Grade(s): 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**  
**Grade(s): 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*

**Grade(s): 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 & Culture, AP (35565)**  
**Full year, one credit + 1.0 quality point**  
**Grade(s): 9-12**

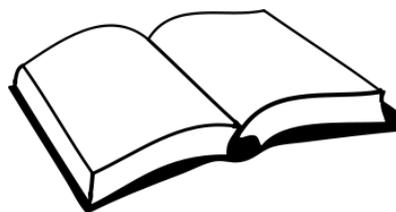
*Prerequisite: Grade of "B" or better in the preceding level or teacher recommendation*

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**  
**Grade(s): 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 Study<sup>1</sup>

### American Sign Language

7 <sup>th</sup> grade	8 <sup>th</sup> grade	9 <sup>th</sup> grade	10 <sup>th</sup> grade	11 <sup>th</sup> grade	12 <sup>th</sup> grade
Level 1	Level 2	Level 3	Level 4		
	Level 1	Level 2	Level 3	Level 4	
		Level 1	Level 2	Level 3	Level 4
			Level 1	Level 2	Level 3
				Level 1	Level 2

### Arabic

7 <sup>th</sup> grade	8 <sup>th</sup> grade	9 <sup>th</sup> grade	10 <sup>th</sup> grade	11 <sup>th</sup> grade	12 <sup>th</sup> 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 <sup>th</sup> grade	8 <sup>th</sup> grade	9 <sup>th</sup> grade	10 <sup>th</sup> grade	11 <sup>th</sup> grade	12 <sup>th</sup> grade
Level 1	Level 2	Level 3	Level 4	Chinese Language & Culture, AP	
	Level 1	Level 2	Level 3	Level 4	Chinese Language & Culture, AP
		Level 1	Level 2	Level 3	Level 4

### French

7 <sup>th</sup> grade	8 <sup>th</sup> grade	9 <sup>th</sup> grade	10 <sup>th</sup> grade	11 <sup>th</sup> grade	12 <sup>th</sup> grade
Level 1	Level 2	Level 3	Level 4	Level 5 or French Language & Culture, AP	French Language & Culture, AP or Advanced Studies in French
	Level 1	Level 2	Level 3	Level 4	Level 5 or French Language & Culture, AP
		Level 1	Level 2	Level 3	Level 4

### German

7 <sup>th</sup> grade	8 <sup>th</sup> grade	9 <sup>th</sup> grade	10 <sup>th</sup> grade	11 <sup>th</sup> grade	12 <sup>th</sup> grade
		Level 1	Level 2	Level 3	Level 4 or German Language & Culture, AP
	Level 1 <i>*Available at H-B Woodlawn only</i>	Level 2	Level 3	Level 4, or German Language & Culture, AP	German Language & Culture, AP

<sup>1</sup> This sequence is for regular programs. For a complete description of the International Baccalaureate language offerings, please see pages 113-116

## Japanese

7 <sup>th</sup> grade	8 <sup>th</sup> grade	9 <sup>th</sup> grade	10 <sup>th</sup> grade	11 <sup>th</sup> grade	12 <sup>th</sup> grade
		Level 1	Level 2	Level 3	
	Level 1 <i>*Available at H-B Woodlawn only</i>	Level 2	Level 3		

## Latin

7 <sup>th</sup> grade	8 <sup>th</sup> grade	9 <sup>th</sup> grade	10 <sup>th</sup> grade	11 <sup>th</sup> grade	12 <sup>th</sup> 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

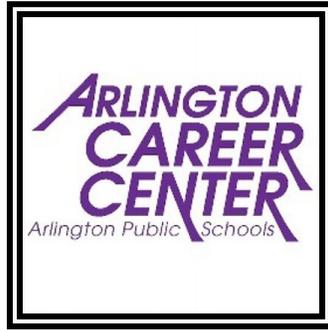
7 <sup>th</sup> grade	8 <sup>th</sup> grade	9 <sup>th</sup> grade	10 <sup>th</sup> grade	11 <sup>th</sup> grade	12 <sup>th</sup> grade
Level 1	Level 2	Level 3	Level 4	Level 5 or Spanish Language & Culture, AP	Spanish Language & Culture, AP or Spanish Literature, AP or Advanced Studies in Spanish
	Level 1	Level 2	Level 3	Level 4	Level 5 or Spanish Language & Culture, AP
		Level 1	Level 2	Level 3	Level 4

## Spanish for Fluent Speakers

7 <sup>th</sup> grade	8 <sup>th</sup> grade	9 <sup>th</sup> grade	10 <sup>th</sup> grade	11 <sup>th</sup> grade	12 <sup>th</sup> grade
Level 1	Level 2	Level 3	Spanish Language & Culture, AP	Spanish Literature, AP	Advanced Studies in Spanish
	Level 1	Level 2	Level 3	Spanish Language & Culture, AP	Spanish Literature, AP or Advanced Studies in Spanish
		Level 1	Level 2	Level 3	Spanish Language & 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](http://www.apsva.us/worldlanguages) for more information.



## **ARLINGTON CAREER CENTER**

**2019-20**

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 course in Business and Information Technology, Computer Science and Cyber Security, Communications and 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 (SDV 100) 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 & TECHNICAL EDUCATION COURSES AT THE ARLINGTON CAREER CENTER**

##### **CAREER & 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 & 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.

<b>I. Business &amp; Communication</b>				
<b>Arts, A/V Technology &amp; Communications</b>	<u>Sequence Option 1:</u> Photo & Video I (28625) & Photo & Video II (28626)	<u>Sequence Option 2:</u> Digital Animation ( 28457) & Graphic Communications System (28458)	<u>Sequence Option 3:</u> Television Production I (98689W) & Television & Multimedia Production II (98690W) DE Television & Multimedia Production III (28691)	
<b>Information Technology: Cybersecurity/Networking</b>	<u>Sequence Option 1:</u> Introduction to Information Technology (26116) & Computer Information Systems (26614)	<u>Sequence Option 2:</u> Web Page Design & Multimedia (96646W) DE; Database Design & Management (96660W) DE	<u>Sequence Option 3:</u> <b>Cybersecurity Level I:</b> 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> <b>Cybersecurity Level II:</b> Cybersecurity II: Networks Operations (26657) (96657W) DE Cybersecurity II: Network Operations Advanced (26658) (96658W) DE  <i>(all above courses taken concurrently)</i>
<b>Information Technology: Computer Programming/Advanced Topics</b>	<u>Sequence Option 1:</u> Computer Programming (26638) (96638W) DE Computer Programming Advanced (26643) (96643W) DE			
<b>II. Industry &amp; Engineering</b>				
<b>Transportation, Distribution, and Logistics</b>	<u>Sequence Option 1:</u> Automotive Technology I (98509W) DE & Automotive Technology II (98507W) DE **	<u>Sequence Option 2:</u> Automotive Collision Repair I (28677) & Automotive Collision Repair II (28678) Automotive Collision Repair III (28680)		
<b>Architecture and Construction</b>	<u>Sequence Option 1:</u> Computer Assisted Architectural Drawing (98408W) DE & Construction Technology (28512)	<u>Sequence Option 2:</u> Materials & Processes & Renewable Technologies (28460)	<u>Sequence Option 3:</u> Electricity I (28534) & Electricity II (28535)	
<b>Science, Technology, Engineering and Mathematics</b>	<u>Sequence Option 1:</u> Engineering I: Intro & Engineering II: Principals of Engineering (28492)	<u>Sequence Option 2:</u> Computer Assisted Technical Drawing (28439) & Computer Assisted Architectural Drawing (28408) DE	<u>Sequence Option 3:</u> Computer Assisted Technical Drawing (28439) DE & Computer Assisted Engineering Drawing (28438)	<u>Sequence Option 4:</u> Digital Electronics (26671) & Engineering Capstone: Design & Development (28494) Computer Integrated Production Engineering (28493) & Level IV

<b>III. Health &amp; Human Services</b>				
<b>Agriculture, Food &amp; Natural Resources</b>	<u>Sequence Option 1:</u> Technical Animal Science I/ Veterinary Science I (28064) & Technical Animal Science II/Veterinary Science II (28061)	<u>Sequence Option 2:</u> Advanced Animal Science I/ Small Animal Care I (28062) & Advanced Animal Science II/Small Animal Care II (28063)		
<b>Health Sciences</b>	<u>Sequence Option 1:</u> Health Sciences (28303) & Medical Terminology (98383W) 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)	<u>Sequence Option 4:</u> Health Sciences (28303) Emergency Medical Technician/Human Anatomy & Physiology (28332) (98334W) DE
<b>Hospitality &amp; Tourism</b>	<u>Sequence Option 1:</u> Culinary Arts & Sciences I (28522) & Culinary Arts and Sciences II (28523)			
<b>Human Services</b>	<u>Sequence Option 1:</u> Early Childhood Education I (98235W) DE & Early Childhood Education II (28236)	<u>Sequence Option 2:</u> Cosmetology I (28528) Cosmetology II (28529) Cosmetology III (28530)	<u>Sequence Option 3:</u> Barbering I (28531) Barbering II (28532) Barbering III (28526)	
<b>IV. Education &amp; Government</b>				
<b>Government &amp; Public Administration</b>	<u>Sequence Option 1:</u> Air Force Junior ROTC I (28741) & Air Force Junior ROTC II (28742)	<u>Sequence Option 2:</u> Air Force Junior ROTC III (28743) & Air Force Junior ROTC IV (28744)	<u>Sequence Option 3:</u> Air Force Junior ROTC V (28745) Air Force Junior ROTC VI (28746)	
<b>Law, Public Safety, Corrections and Security</b>	<u>Sequence Option 1:</u> Forensic Technology with application in Biotechnology (28325) & Biotechnology Techniques and Applications (28467)			

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 & 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.*

**Aerospace Engineering (28498)**

**Full year, one credit**

**Grade(s): 9-12**

*Prerequisite: Engineering I: Introduction to Engineering (28491) and Engineering II: Principles of Engineering (28492)*

In this specialized course students are taught about aerodynamics, astronautics, space-life sciences, and systems engineering through hands-on engineering problems and projects.

AFJROTC I Sequence: 28741 and 28742. Must enroll in both classes at the same time.

**Air Force Junior ROTC I (28741)**

**Full year, one credit**

**Grade(s): 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**

**Grade(s): 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.

AFJROTC III Sequence: 28743 and 28744. Must enroll in both classes at the same time.

**Air Force Junior ROTC III (28743)**

**Full year, one credit**

**Grade(s): 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**

**Grade(s): 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.

AFJROTC V Sequence: 28745 and 28746. Must enroll in both classes at the same time.

### **Air Force Junior ROTC V (28745)**

**Full year, one credit**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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 Collision Repair III (28680)**

**Full year, two periods, two credits**

**Grade(s): 11-12**

*Prerequisite(s): Automotive Collision Repair I (28677) & II (28678)*

This course allows students to further apply the tasks/competencies learned in Automotive Collision Repair I and II. This course may also be used as a capstone course in which students may perfect their auto body skills and move toward employment in the industry. Students who successfully complete the program sequence will be prepared to take and pass their respective ASE/NATEF exam and will be prepared for the postsecondary education opportunities.

### **Automotive Technology I (28509) (98509W)**

**Full year, two periods, two credits + 1.0 quality point**

**Grade(s): 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 as AUT 100 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. Please consult with your counselor for more details.

**Automotive Technology II (28507) (98507W)****Full year, two periods, two credits + 1.0 quality point****Grade(s): 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 AUT 265 for a total of 4 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****Grade(s): 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) AUT 266 for a total of 4 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****Grade(s): 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****Grade(s): 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****Grade(s): 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**

**Grade(s): 10-11**

*Prerequisite: Barbering I & II (28531, 28532)*

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.

- **Certifications:** *Virginia State Board of Barbers and Cosmetology Examination (once students have completed Barbering I, II & III).*

### **Biotechnology Techniques and Applications (28467)**

**Full year, two credits**

**Grade(s): 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, micro pipetting, 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**

**Grade(s): 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 Arch. Drawing Sequence: 28439 or 98439W and 28408 or 98408W. Must enroll in both classes at the same time.

Computer Assisted Eng. Drawing Sequence: 28439 or 98439W and or 28438 or 98438W. Must enroll in both classes at the same time.

### **Computer Assisted Technical Drawing (28439) (98439W)**

**Full year, one period, one credit + 1.0 quality point**

**Grade(s): 10-12**

*Prerequisite(s): Concurrent Enrollment in Computer Assisted Architectural Drawing (28408)*

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 Assisted Architectural Drawing (28408) (98408W)**

**Full year, one period, one credit + 1.0 quality point  
Grade(s): 10-12**

*Prerequisite(s): Concurrent Enrollment in Computer Assisted Technical Drawing (28439)*

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 and Revit are components of this course.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as ARC 123 & ARC 124 for a total of 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.*

**Computer Assisted Engineering Drawing (28438) (98438W)**

**Full year, one period, one credit + 1.0 quality point  
Grade(s): 9-12**

*Prerequisite: Concurrent enrollment in Computer Assisted Technical Drawing (28439)*

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 and Inventor are 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 Information Systems Sequence: 26649, 26614 and or 26116. Must enroll in both classes at the same time.

**Computer Information Systems (26614) (96614W)**

**Fully year, one credit + 1.0 quality point**

**Grade(s): 9-12**

*Prerequisite: Concurrent enrollment with Introduction to Information Technology (96116W)*

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 ITN 100 Introduction to Telecommunications & ITE 170 Multimedia Software for a total of 6 college 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 Information Systems Advanced Sequences: 26614, 26116, 26638 or 29094. Must enroll in both classes at the same time.

**Computer Information Systems, Advanced (26649) (96649W)**

**Full Year, one credit + 1.0 quality point**

**Grade(s): 10-12**

*Prerequisite(s): Introduction to IT, Computer Information Systems, or permission of instructor, and/or concurrently enrollment with another Business & 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) as ITE 115 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.
- **Certification:** Student selected verified credit can be earned by passing the course related industry certification.

### **Introduction to Information Technology (26116) (96116W)**

**Full year, one credit + 1.0 quality point**

**Grade(s): 9-12**

*Prerequisite(s): Concurrent enrollment with Computer Information Systems (96614W)*

This course is an essential foundation class for all students interested in computers, networking, and web-based application and programming. Students who are interested in Information Technology (IT) or Cyber Security careers and would like to learn to set up home computer networks, or to learn about how computers work should take this course. Included technologies are computer home network setups, and computer solutions used personally and in business. Students can also prepare for highly recognized industry certifications. Eligible students can earn dual enrollment credit.

- **College Credit:** This course may be dual-enrolled at Northern Virginia Community College (NOVA) as ITE 100 Introduction to Information Systems and ITE 115 Computer Applications and Concepts for a total of 6 college credits at NOVA pending acceptance 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.
- **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**

**Grade(s): 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 ITP 100 Software Design for a total of 3 credits 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 + 1.0 quality point**

**Grade(s): 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 CSC 200 and CSC 201 for a total of 8 credits 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 Intensified (96644W)**

**Full year, one credit +1.0 quality point**

**Grade(s): 9-12**

*Prerequisite: Successful completion of Algebra I*

This course focuses around developing computer program to solve a problem. Students will also learn about program design principles that will allow them to write programs that are understandable, adaptable and reusable. Students will also learn other important computer science concepts and protocols including the development and analysis of algorithms, the development and use of fundamental data structures using various programming languages.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as ITP 100 Software Design and CSC 200 Introduction to Computer Science for a total of 7 credits 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.*

Sustainable & Renewable Technologies Sequence: 28512 and 28460. Must enroll in both classes at the same time.

### **Construction Technology (28512)**

**Full year, one credit**

**Grade(s): 9-12**

*Prerequisite: Concurrent enrollment in Sustainable & 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.

### **Sustainable and Renewable Technologies (28460)**

**Full year, one credit**

**Grade(s): 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.

### **Cosmetology I (28528)**

**Full year, two credits**

**Grade(s): 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).

### **Cosmetology II (28529)**

**Full year, two periods, two credits**

**Grade(s): 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).

### **Cosmetology III (28530)**

**Full year, two periods, two credits**

**Grade(s): 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.

- **Certifications:** *Virginia State Board of Barbers and Cosmetology Examination (once students have completed Cosmetology I, II & III).*

### **Culinary Arts & Sciences I (28522)**

**Full year, two periods, two credits**

**Grade(s): 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**

**Grade(s): 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.

### **Culinary Arts III: Specialization (28524)**

**Full year, one credit**

**Grade(s): 11-12**

*Prerequisite(s): Culinary Arts & Sciences I (28522) & II (28523)*

The Culinary Arts Specialization curriculum provides students with continuing opportunities to obtain comprehensive knowledge of the food service industry as well as to expand their technical skills in a food service specialty. Students explore careers and refine their skills in implementing safety and sanitation standards, applying nutritional principles, planning menus, using business and math skills, and selecting and maintain food service equipment.

Cybersecurity I Sequence: 26635 or 96653W, 26654 or 96654W, 26655 or 96655W, and 26656 or 96656W. Must enroll in all four classes at the same time.

### **Cybersecurity I: Networks (26653) (96653W)**

**One semester, one half credit, + 1.0 quality point**

**Grade(s): 10-12**

*Prerequisite(s): Concurrent enrollment with Cybersecurity I: Systems Administration (26655); Cybersecurity I: Telecommunications & Routing Protocols (26656); Cybersecurity I: Operating Systems (26654)*

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 ITE 115 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**

**Grade(s): 10-12**

*Prerequisite(s): Concurrent enrollment with Cybersecurity I: Networks (26653); Cybersecurity I: Systems Administration (26655); Cybersecurity I: Telecommunications & Routing Protocols (26656)*

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 ITN 106 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**

**Grade(s): 10-12**

*Prerequisite(s): Concurrent enrollment with Cybersecurity I: Networks (26653); Cybersecurity I: Telecommunications & Routing Protocols (26656); Cybersecurity I: Operating Systems (26654)*

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 ITN 101 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**

**Grade(s): 10-12**

*Prerequisite(s): Concurrent enrollment with Cybersecurity I: Networks (26653); Cybersecurity I: Systems Administration (26655); Cybersecurity I: Operating Systems (26654)*

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 ITN 171 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 Sequence: 26657 or 96657W and 26658 or 96658W. Must enroll in both classes at the same time.

**Cybersecurity II: Network Operations (26657)  
(96657W)**

**Full year, one credit + 1.0 quality point**

**Grade(s): 10-12**

*Prerequisite: Cybersecurity I Courses, or permission of instructor. Concurrent enrollment in Cybersecurity II: Network operations Advanced (26658) (96658W).*

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 ITN 200 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(s): 10-12**

*Prerequisite: Cybersecurity I, or permission of instructor. Concurrent enrollment with Cybersecurity II: Network Operations (26657 (96657W)).*

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 ITN 260 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.*

### **Database Design & Management (96660W)**

**Full Year, one credit + 1.0 quality point**

**Grade(s) 10-12**

*Prerequisite: Introduction to Technology (26116)*

This course includes database design and Structured Query Language (SQL) programming. Students study database fundamentals, including database development, modeling, design, and normalization. In addition, students are introduced to database programming. Students gain the skills and knowledge needed to use features of database software and programming to manage and control access to data. Students will prepare for the first of two certification exams.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as ITD 256 for a total of 3 credits 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.*

### **Web Page Design & Multimedia (96646W)**

**Full Year, one credit +1.0 quality point**

**Grade(s): 9-12**

*Prerequisite: None*

Students develop proficiency in designing and creating desktop-published projects, multimedia presentations/projects, and Web sites using industry-standard application software. Students apply principles of layout and design in completing projects. Students create portfolios that include a resume and a variety of desktop-published, multimedia, and Web-site projects produced in the course.

- **College Credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as ITD 110 Web Page Design I & ITD 210 Web Page Design II for a total of 6 college credits 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 Sequence: 28457 and 28458.  
Must enroll in both classes at the same time.

### **Digital Animation (28457)**

**Full year, one credit**

**Grade(s): 10-12**

*Prerequisite: Concurrent enrollment in Graphic Communications System (28458)*

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.

### **Graphic Communications System (28458)**

**Full year, one credit**

**Grade(s): 10-12**

*Prerequisite: Concurrent enrollment in Digital Animation (28457)*

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.

### **Early Childhood Education I (28235)**

**Full year, two periods, two credits**

**Grade(s): 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**

**Grade(s):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 CHD 120 & CHD 165 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**

**Grade(s): 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**

**Grade(s): 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 & Physiology (28334) (98334W)**

**Full year, two periods, two credits + 1.0 quality point**

**Grade(s): 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 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 EMS 111 & EMS 120 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.

### **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.

Engineering I Sequence: 28491 and 28492. Must enroll in both classes at the same time.

### **Engineering I: Intro to Engineering Design (28491)**

**Full year, one credit**

**Grade(s): 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**

**Grade(s): 10-12 & Arlington Tech students starting in the 9<sup>th</sup> grade**

*Prerequisite:* Engineering I or concurrent enrollment in Engineering I (28491)

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

**Digital Electronics (26671)****Full Year, one credit****Grade(s): 10-12***Prerequisite: Engineering: I Intro to Engineering (28491) and Engineering II: Principles of Engineering (28492)*

This pre-engineering course is designed to follow two core courses (Principles of Engineering and Intro to Engineering Design) as part of a national engineering program. Students use computer simulations to learn about the logic of electronics as they design, test, and actually construct circuits and devices. They apply control systems programming and explore sequential logic and digital circuitry fundamentals. Topics in computer circuitry are also presented.

Engineering III Sequence: 28493 and 28494. Must enroll in both classes at the same time.

**Computer Integrated Production Engineering (28493)****Full year, one credit****Grade(s): 10-12***Prerequisite: Engineering I (28491) & II (28492)*

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 Capstone: Design and Development (28494)****Full year, one credit****Grade(s): 10-12***Prerequisite: Engineering I (28491) & II (28492)*

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.

**Entrepreneurship (29094) (99094W)****Arlington Student Enterprise Program****Full year, one credit + 1.0 quality point****Grade(s): 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 BUS 116 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****Grade(s):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.

**Forensic Technology with application in Biotechnology (28325)****Full year, two credits****Grade(s): 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.

Health Sciences Sequence: 28303 and 28383 or 98383W. Must enroll in both classes at the same time.

### **Health Sciences (28303)**

**Full year, one credit**

**Grade(s):10-12**

*Prerequisite: Concurrent enrollment in Medical Terminology (28283)*

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.

### **Medical Terminology (28383) (98383W)**

**Full year, one credit + 1.0 quality point**

**Grade(s): 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.*

### **Materials & Processes Technology (28433)**

**Full year, one credit**

**Grade(s): 9-12**

*Prerequisite(s): None*

Students focus on physical materials, and processes as they fabricate usable products and conduct experiments. Learning experiences include career analysis as well as the use of tools and equipment related to analysis, testing, and processing of metals, plastics, woods, ceramics, and composite materials. This single period laboratory course is recommended for students interested in technical careers and other wishing to improve their consumer knowledge and technological literacy.

### **Pharmacy Technician (28305)**

**Full year, two credits**

**Grade(s): 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 & Video Technology Sequence: 28625 and 28626. Must enroll in both classes at the same time.

### **Photo & Video Technology I (28625)**

**Full year, one credit**

**Grade(s): 10-12**

*Prerequisite: Concurrent enrollment in Photo and Video Technology II (28626)*

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**

**Grade(s): 10-12**

*Prerequisite: Concurrent enrollment in Photo and Video Technology I (28625)*

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)**

**Grade(s):10-12**

*Prerequisite(s): Biology I and a chest X-ray or tuberculin skin test is required if participating in the optional 3<sup>rd</sup> 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.*

### **Robotic Design (28421)**

**Full year, one credit**

**Grade(s): 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 Sequence: 28064 and 28061. Must enroll in both classes at the same time.
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### **Technical Animal Science I/ Veterinary Science I (28064)**

**Full year, one credit**

**Grade(s): 9-12**

*Prerequisite: Biology I-Concurrent Enrollment in Technical Animal Science II/Veterinary Science II (28061)*

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.

### **Technical Animal Science II/Veterinary Science II (28061)**

**Full year, one credit**

**Grade(s): 9-12**

*Prerequisite: Biology I-Concurrent enrollment in Technical Animal Science I/ Veterinary Science I (28064)*

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. 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.*

### **Television Production I (28689) (98689W)**

**Full year, two periods, two credits + 1.0 quality point**

**Grade(s): 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**

**Grade(s): 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**

**Grade(s): 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.

**Advanced Animal Science I Sequence: 28062 and 28063. Must enroll in both classes at the same time.**

### **Advanced Animal Science II/ Small Animal Care I (28062)**

**Full year, one credit**

**Grade(s): 9-12**

*Prerequisites: Biology I and Concurrent enrollment in Advanced Animal Science II/ Small Animal Care II (28063)*

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/Small Animal Care II (28063)**

**Full year, once credit**

**Grade(s): 10-12**

*Prerequisite: Biology I-Concurrently enrollment in Advanced Animal Science I/ Small Animal Care I (28062)*

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. 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-CTE COURSES OFFERED AT THE ARLINGTON CAREER CENTER**

**Anatomy/Physiology, Dual Enrollment (28085) (98085W)**

**Full year, one credit, + 1.0 quality point**

**Grade(s):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 BIO 141 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.

**Pre-Calculus, Dual Enrollment (93162W)**

**Full year, one credit, + 1.0 quality point**

**Grade(s): 9-12**

*Prerequisite(s): 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 MTH 263/264 Calculus and Analytical Geometry I/II.

- **College credit:** This course is dual-enrolled at Northern Virginia Community College (NOVA) as MTH 163 & MTH 164 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.

**Calculus: Dual Enrollment (93176W)**

**Full year, one credit, + 1.0 quality point**

**Grade(s):9-12**

*Prerequisite(s): MTH 163 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.

- **College credit:** This course is dual-enrolled at Northern Virginia Community College (NOVA) as MTH 263 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.

**Calculus with Analytic Geometry, Dual Enrollment (93173W)**

**Full Year, one credit, +1.0 quality point**

**Grade(s): 10-12**

*Prerequisite(s): "C" or better in Precalculus, Intensified and teacher recommendation or "C" or better in NOVA MTH 163/164 and teacher recommendation or "B" or better in Precalculus with teacher recommendation or "A" in Mathematical Analysis/Trigonometry and teacher recommendation.*

The course presents analytic geometry and the calculus 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 programs.

- **College credit:** *This course is dual-enrolled at Northern Virginia Community College (NOVA) as MTH 264 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.*

### **Economics, Dual Enrollment (92801W)**

**Full Year, one credit, +1.0 quality point**

**Grade(s): 10-12**

*Prerequisite(s): Students must meet the NOVA entrance requirements*

This course provides college credit and is 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. *Successful completion of this course will meet the Economics and Personal Finance graduation requirement for students.*

- **College credit:** *This course is dual-enrolled at Northern Virginia Community College (NOVA) as ECO 201 & ECO 202 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.*

### **English 11, Dual Enrollment (College Composition) (91150W)**

**Full year, one credit, + 1.0 quality point**

**Grade(s): 11**

*Prerequisite(s): High academic achievement in previous English classes. Teacher/Counselor recommendation. Students must meet the NOVA entrance requirements*

This course will address the Virginia Standards of Learning for Grade 11 English, and introduce students to critical thinking and the fundamentals of academic writing. Through the writing process, students will 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. An increased emphasis will be placed on critical essays, argumentation, and research, developing these competencies through the

examination of a range of texts about the human experience. Writing activities will include exposition and argumentation with at least one researched essay.

- **College credit:** *This course is dual-enrolled at Northern Virginia Community College (NOVA) as ENG 111 & ENG 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.*

### **English 12, Dual Enrollment (91160W)**

**Full year, one credit, + 1.0 quality point**

**Grade(s): 12**

*Prerequisite(s): 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 ENG 111 & ENG 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.*

### **English 12, Dual Enrollment (British & World Literature) (91161W)**

**Full year, one credit, + 1.0 quality point**

**Grade(s): 12**

*Prerequisite(s): High academic achievement in previous English classes, including English 11 DE (NVCC ENG111 & ENG112). Teacher/Counselor recommendation. Students must meet the NOVA entrance requirements*

This course will address the Virginia Standards of Learning for Grade 12 English, and examine major works of British and World Literature. Students will study major English works from the Anglo-Saxon period to the present, emphasizing idea and characteristics of the British literary tradition.

Students will also examine major works of world literature, from canon to contemporary. This course involves critical reading and writing experiences throughout.

- **College credit:** This course is dual-enrolled at Northern Virginia Community College (NOVA) as ENG 243 & ENG 244 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.



### **General Biology, Dual Enrollment (94310W)**

**Full year, one credit, +1.0 quality point**

**Grade(s): 11-12**

*Prerequisite(s): Biology and Chemistry*

This course provides an in-depth exploration of biological concepts that include topics in cellular structure, metabolism, genetics, diversity of life, anatomy and physiology of organisms, and ecosystem organization and processes in an evolutionary context. The course will emphasize laboratory work involving quantitative data collection and analysis.

- **College credit:** This course is dual-enrolled at Northern Virginia Community College (NOVA) as BIO 101 & BIO 102 for a total of 8 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.

### **General College Physics I/II, Dual Enrollment (94501W)**

**Full year, one credit, +1.0 quality point**

**Grade(s): 11-12**

*Prerequisite(s): Precalculus and satisfactory placement score for ENG 111*

Teaches fundamental principles of physics. Covers mechanics, thermodynamics, wave phenomena, electricity, optics, magnetism, and selected topics in modern physics.

- **College credit:** This course may be dual-enrolled at Northern Virginia Community College (NOVA) as PHY 201 & PHY 202 for a total of 8 credits. 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

### **General Environmental Science, Dual Enrollment (94270W)**

**Full year, one credit, +1.0 quality point**

**Grade(s): 11-12**

*Prerequisite(s): Biology and Chemistry*

The introductory course focuses on the fundamental components and interactions that make up the natural systems of the earth. The course covers basic scientific concepts un the disciplines of biological, chemical, and earth sciences that are necessary to understand and address environmental issues.

- **College credit:** This course may be dual-enrolled at Northern Virginia Community College (NOVA) as ENV 121 & ENV 122 for a total of 8 credits. 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

### **Intermediate Spanish I/II, Dual Enrollment (95501W)**

**Full year, one credit, +1.0 quality point**

**Grade(s): 11-12**

*Prerequisite(s): Successful completion of Spanish IV or equivalent proficiency as determined by the teacher and readiness to enroll in a college level paced course*

Students are able to discuss current events and to understand authentic material including the study and analysis of literary works. They read, write and converse with some depth about selected topics on the culture, history, and literature of the language and extend comprehension beyond the literal level. Lessons are infused with a cultural framework to analyze the perspectives that derive the products and practices of the Spanish speaking world. This course is designed to increase Spanish proficiency above the intermediate-mid level as defined by the ACTFL (American Council on the Teaching of Foreign Languages) Proficiency Guidelines.

- **College credit:** This course may be dual-enrolled at Northern Virginia Community College (NOVA) as SPA 201 & SPA 202. 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.

**Statistics I/II, Dual Enrollment (93163W)****Full year, one credit, +1.0 quality point****Grade(s): 11-12**

*Prerequisite(s): Satisfactory score on an appropriate proficiency exam or MTH152 or MTH163 or MTH182*  
Covers descriptive statistics, elementary probability, probability distributions, estimation, and hypothesis testing. Continues the study of estimation and hypothesis testing with emphasis on correlation and regression, analysis of variance. Chi-squared tests, and nonparametric methods.

- **College credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as MTH 245 for a total of 3 credits. 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*

**Teachers for Tomorrow I (29062) (99062W)****Full year, one credit + 1.0 quality point****Grade(s): 11-12***Prerequisite(s): 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 12<sup>th</sup> 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 EDUC 201 for a total of 4 credits pending acceptance to Shenandoah University. This course may be dual-enrolled at Northern Virginia Community College (NOVA) as EDU 200, Intro to Teaching as a Profession. 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.*

**Teachers for Tomorrow II (29063)****Full year, one credit****Grade(s): 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.

**United States & Virginia History, Dual Enrollment (92360W)****Full year, one credit, +1.0 quality point****Grade(s): 11-12**

*Prerequisite(s): Student must meet the NOVA entrance requirements.*

This course surveys the general history of Virginia and the United States from the earliest times to the present and allows students to reach a basic understanding of the characteristic features of the United States' historical development. Students will learn about the important political, economic, social, intellectual, cultural and religious changes that shaped the development of Virginia and the United States from earliest times. There is an end-of-course SOL Examination. Passing the SOL test and the course earns a verified credit.

- **College credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as HIS 121 & HIS 122 for a total of 6 credits. 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*

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## INTERNSHIP PROGRAMS

**PRIME (Professional Related Intern-Mentorship Experience) (29060)****Full year, one credit****Grade(s): 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****Grade(s): 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.

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## **ACADEMIC PROGRAMS**

### ***Arlington Tech at the Career Center***

#### **Grade(s): 9-12**

*Prerequisite(s): Completion of Algebra I with verified credit before entry in the 9<sup>th</sup> grade.*

Arlington Tech is a rigorous project-based learning program that prepares students to succeed in college and in the workplace through collaborative problem solving. Students learn how to effectively combine their interdisciplinary core academic knowledge with their developed skills in Career Technical Education (CTE) to solve real-world problems and provide services to the local community.

Arlington Tech provides the opportunity for students to explore and become certified in a variety of CTE programs. An to get a jump start on college by earning Early College Credits through dual enrollment with Northern Virginia Community College. As a culmination of the project-based learning experience, Arlington Tech students will complete a year-long senior capstone project in which they would be employed as an intern, a consultant, or act as an independent researcher. Learning at Arlington Tech is active (through inquiry), authentic (through projects), and motivated by the students' interests.

### **Arlington Tech Capstone Experience (28955)**

**Full year, 1 credit for classroom instruction and additional variable work experience credits\***

#### **Grade(s): 11-12**

*Prerequisite(s): Previous career and technical education (CTE) coursework in the student's career pathway of interest and demonstrated entry workplace readiness skills*

*\*Credits: 1-3 Variable work experience credits per academic year, based on documented hours (1 credit=396 hours, 2 credits=792 hours, 3 credits=1,188) Any hours acquired during the summer will be applied to the upcoming fall school term.*

Arlington Tech Capstone Experience is the culmination of an Arlington Tech student's cross-curricular project-based learning and career development. Capstone Experience provides the student a gateway to apply and to advance her or his knowledge, technical expertise, and research skills learned in Career and Technical Education (CTE) courses within an authentic real world business and

industry settings. Students may complete the Capstone Experience in one on three ways:

1. As paid or unpaid intern in a job placement relevant to the student's career pathway (working on-the-job site), (1 to 3 variable credits based on hours worked) \*
2. As a project manager/consultant working for a client to deliver a product or to solve a problem (working on-the-job site or at school)
3. As a research assistant at a university, government organization, or non-profit (working on-the-job site or at school)
- 4.

Capstone Experience continues to develop the student's knowledge and skill in their chosen career path, or to further research study within her or his area of interest. An approved work-based training plan or research proposal that is developed by the student during her or his junior year. The teacher and the student's mentor facilitate the student's work based learning experience and assist in evaluating her or his achievement and performances. The student will coordinate with the Capstone Experience coordinating teacher to determine the best Capstone Experience match for the student. By the student enrolling in the Capstone Experience course, the parent or legal guardian grants full legal consent that the student has permission to participate in all aspects of the Capstone Experience program. It is recommended that student has one to two work release periods at the end of the school day to facilitate Capstone Experience job placement. This will be a graduation requirement for Arlington Tech students.

### **The Academic Academy**

#### **Grade(s): 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 to provide individualized student-centered interventions. Students in grades 9 through 12 are served.

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. The Academy integrates comprehensive counseling into the program which focuses on coping skills and social emotional growth. 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.

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.*

### **HILT Institute**

#### **Grade(s): 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.*

### **Leadership Capstone (28956)**

#### **Full year, one credit**

#### **Grade(s): 10-12**

*Prerequisite(s): Concurrently enrolled in any CTE course*

Work Based Learning Capstone (WBLC) is the culminating course in a student's logical sequence of courses within a chosen career area of interest. In this course, students have the opportunity to apply their knowledge, technical skills, leadership and workplace readiness skills acquired in their Career and Technical Education (CTE) elective courses in a real world business and industry settings. Student will need to have taken at least two previous career and technical education (CTE) courses listed in the Program of Studies in their chosen career areas of interest.

The WBL Capstone continues to develop the student's skills and knowledge in their chosen career path, or further their study within their areas of interest. A work-based training plan is developed by the student, teacher, and workplace mentor to guide the student's work based learning experiences and assist in evaluating achievement and performance. There are

several models of Work Based Learning (WBL): the credit bearing cooperative "co-op" (requires concurrent classroom instruction and on-the-job training"), and the non-credit bearing service based learning, internship, and school based enterprise (entrepreneurship programs). The student will coordinate with the WBL coordinating teacher to determine the appropriate WBL match for the student. Parental or legal guardian consent is required for student participation. It is recommended that students have on to two WBL release periods at the end of the school day to facilitate WBL, job placement.

### **Program for Employment Preparedness (PEP)**

#### **Full year, all day program; 6-8 credits**

#### **Grade(s): 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 provides a combination of office technology, paid or unpaid career internships, as well as occupational knowledge, and offers personal finance and social skills both at the Career Center, and the community at large. There are some academic courses that can be offered based on each student's individual needs. A student's week includes 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 paid and unpaid career exploration at internship sites throughout 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.

**Occupational Knowledge (20998)****Full year, one credit****Grade(s): 12 and post-graduate***Prerequisite(s): Enrollment in PEP*

Students in PEP meet with their case carriers two days 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(s): 12 and post-graduate***Prerequisite(s): Enrollment in PEP*

PEP students intern at various 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 PEP 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.****Grade(s): 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.



<b>TRANSITION ASSESSMENT SERVICES</b>
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<p><i>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.</i></p>
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<p>Transition 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 transition profile is prepared which outlines the results of the student's evaluation and provides both short-term and long-term recommendations for career readiness.</p>
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## 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*

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.

#### **English 11 Strategies (21151)**

**Full Year, one credit**

**Grade(s): 9-12**

*Prerequisite: None*

This course is the initial course of enrollment for students working towards completion of an English 11 credit. The English 11 curriculum is followed using a personalized, competency-based approach, with additional enrichment to support learning and build content knowledge. As students achieve mastery of 80% or more of English 11 content is achieved, students move to the full English 11 course and credit.

#### **English 12 Dual Enrollment (91160W)**

**Full year, one credit, + 1.0 quality point**

**Grade(s): 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 ENG 111 and ENG 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.*

**HILT/HILTEX Grammar Development (20891)****Full year, one credit****Grade(s): 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.

**Introduction to Biology (24301)****Full year, one credit****Grade(s): 9-12**

This course is the initial course of enrollment for students working towards completion of a Biology credit. The Biology curriculum is followed using a personalized, competency-based approach, with additional enrichment to support learning and build content knowledge. As students achieve mastery of 80% or more of Biology content is achieved, students move to the full Biology course and credit.

**Introduction to Earth/Science (24201)****Full year, one credit****Grade(s): 9-12**

This course is the initial course of enrollment for students working towards completion of Earth Science credit. The Earth Science curriculum is followed using a personalized, competency-based approach, with additional enrichment to support learning and build content knowledge. As students achieve mastery of 80% or more of Earth Science content is achieved, students move to the full Earth Science course and credit.

**Introduction to United States and Virginia History (22202)****Full year, one credit****Grade(s): 9-12**

This course is the initial course of enrollment for students working towards completion of a United States and Virginia History credit. The US/VA History curriculum is followed using a personalized, competency-based approach, with additional enrichment to support learning and build content knowledge. As students achieve mastery of 80% or more of US/VA History content is achieved, students move to the full US/VA History course and credit.

**Introduction to World Geography (22201)****Full year, one credit****Grade(s): 9-12**

This course is the initial course of enrollment for students working towards completion of a World Geography credit. The World Geography curriculum is followed using a personalized, competency-based approach, with additional enrichment to support learning and build content knowledge. As students achieve mastery of 80% or more of World Geography content is achieved, students move to the full World Geography course and credit.

**Introduction to World History and Geography (22203)****Full year, one credit****Grade(s): 9-12**

This course is the initial course of enrollment for students working towards completion of a World History and Geography credit. The World History and Geography curriculum is followed using a personalized, competency-based approach, with additional enrichment to support learning and build content knowledge. As students achieve mastery of 80% or more of World History and Geography content is achieved, students move to the full World History and Geography course and credit.

# **WAKEFIELD HIGH SCHOOL**

## **Special Programs for All Students**

**2019 - 20**

**FOUNDATION PROGRAM for ACADEMIC EXCELLENCE  
(Grade 9)**

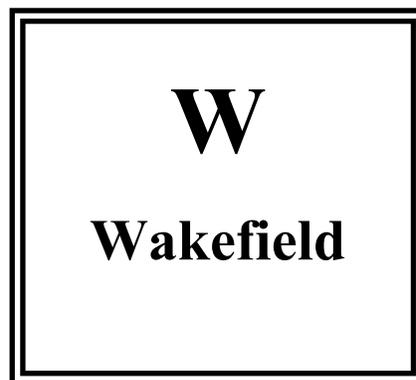
**SENIOR PROJECT GRADUATION REQUIREMENT  
(Grade 12)**

**AP CAPSTONE DIPLOMA**

**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**

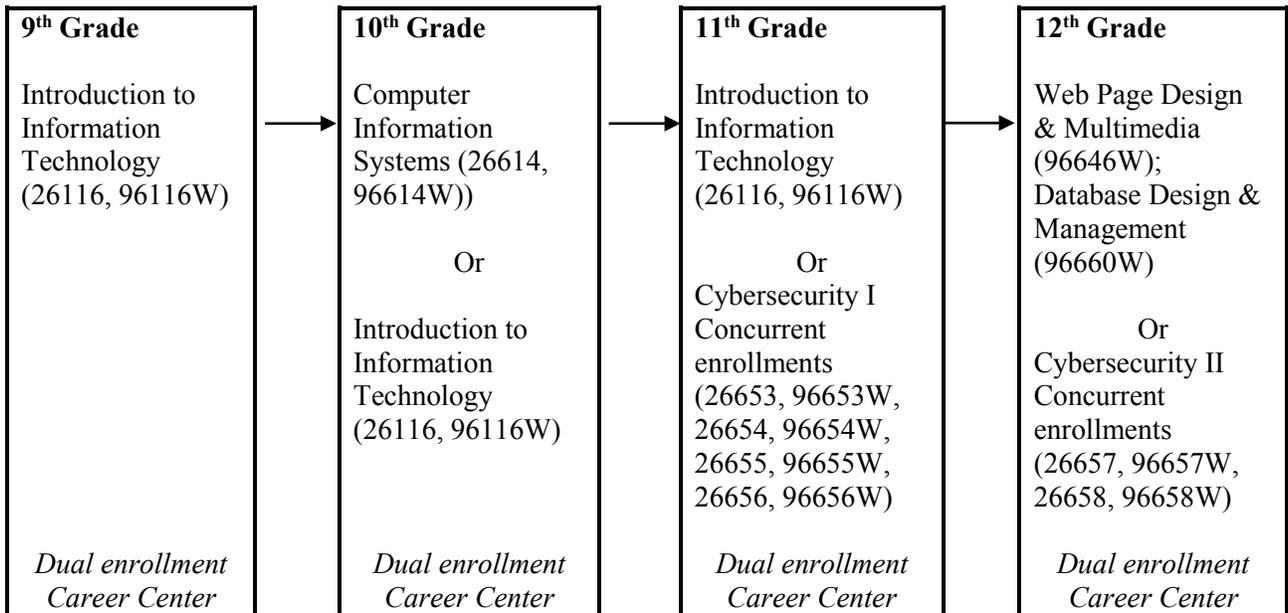
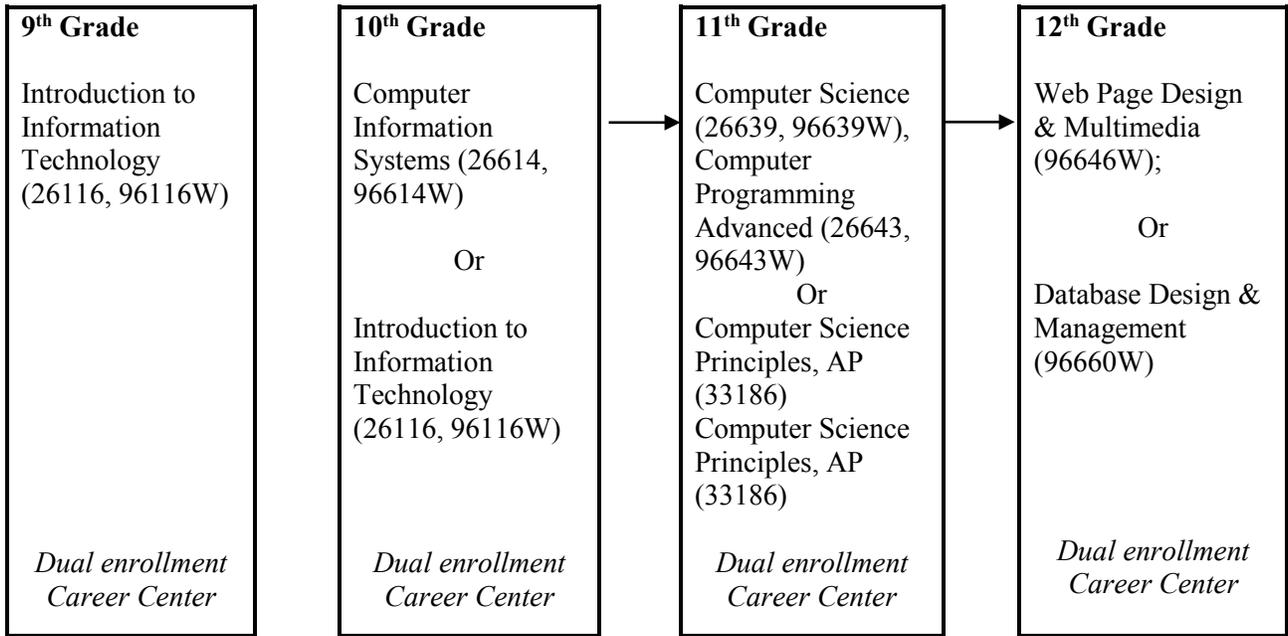
- Each House has a team of core teachers and a counselor(s) who share the same group of students.
- Each House includes students who are identified for gifted services, students who receive Special Education services, and students who are English Language Learners.
- Students take their math and elective 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 information technology (IT) skills necessary to make informed decisions and choices about their education and careers in cybersecurity and information technology.

### Information Technology Sample Sequences:



## SENIOR PROJECT GRADUATION REQUIREMENT

### Grade 12

#### Senior Project Seminar

Full year, one credit (20190)

Semester, one half credit (20195)

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 11<sup>th</sup> 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.

## AP CAPSTONE DIPLOMA

AP Capstone™ is a College Board program that equips students with the independent research, collaborative teamwork, and communication skills that are increasingly valued by colleges. It cultivates curious, independent, and collaborative scholars and prepares them to make logical, evidence-based decisions.

AP Capstone is comprised of two AP courses — AP Seminar and AP Research — and is designed to complement and enhance the discipline-specific study in other AP courses. Participating schools can use the AP Capstone program to provide unique research opportunities for current AP students, or to expand access to AP by encouraging students to master the argument-based writing skills that the AP Capstone program develops.

Students who undertake these courses are AP Capstone candidates, a distinction recognized by colleges and university across the country. Student receive the AP Capstone Certificate after successful completion of both courses. Capstone candidates who have also passed four other AP exams in any areas receive the AP Capstone Diploma.

### **Seminar, AP (22110) (32110)**

**Full year, one credit, +1.0 quality point**

**Grade(s): 10-12**

AP Seminar is a foundational course that engages students in cross-curricular conversation that explore the complexities or academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in research-based written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.

*Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point for this course (22112).*

### **Research, AP (22112) (32112)**

**Full year, one credit, +1.0 quality point**

**Grade(s): 11, 12**

*Prerequisite: Successful completion of AP Seminar*

AP Research allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a year-long research based investigation to address a research question. In the AP Research course, students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Students explore their skill development, document their processes, and curate the artifacts of the development of their scholarly work in a portfolio. The course culminates in an academic paper of approximately 4000-5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense. *Students are required to take the AP exam associated with this course. Students not taking the exam will not earn the additional quality point for this course (22112).*

## 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)**

**Grade(s): 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. (24270) (24271)*

### **Selected Topics in Environmental Science, AP (34271)**

**Full year, one credit, double period**

**Grade(s): 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**

**Grade(s): 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.*

### **Consult, AP (20184)**

**Full year, one period, one credit, Grade(s): 11-12**

*Prerequisites: Students enrolled in their first AP course or 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

### **African American Studies (22371)**

**Full Year, one credit**

**Grade(s): 10-12**

*Prerequisite: None*

The African American Studies course is designed to develop an understanding of the causes, character, and consequences of the African American experience and its influence on the world, the United States, and the African American community. Beginning with a historical, geographical, social, political, economic, and cultural understanding of the African continent, the course will provide a descriptive and corrective overview which will introduce the student to the study of the African and African American experiences.

### **American Civilization: English (21176) & Social Studies, Intensified (22376)**

**Full year, two periods, two credits (one credit in English & credit in United States & 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.*

### **Anatomy/Physiology, Dual Enrollment (28085) (98085W)**

**Full Year, one credit, +1.0 quality point**

**Grade(s): 11, 12**

*Prerequisite: Biology and one additional laboratory science*

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 BIO 141 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.*

### **Earth Science, Part I (20045)**

**Full Year, one credit**

**Grade(s): 9-12**

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

This course is a study of the fundamental concepts common to Earth 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 interpretation 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 Earth Science, Part II, and the Earth Science SOL exam.

### **Earth Science, Part II (20046)**

**Full Year, one credit**

**Grade(s): 9-12**

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

This course is a continued study of the fundamental concepts common to Earth Science to include greater depth of study in the area of geology, oceanography, meteorology, and astronomy. 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 Earth Science end-of-course SOL Examination will earn one verified science credit.

**Earth Science II: Oceanography, Dual Enrollment (24220) (94220W)****Full Year, one credit, +1.0 quality point****Grade(s):11, 12***Prerequisite: Earth Science and one additional laboratory science*

This course introduces students to the major topic areas of Oceanography. This course describes the role of the oceans on our earth, why they are important to us, and what influence the oceans have on the history of civilization. Oceanography deals with geography a biological oceanography and covers such topics as the geology and geography of ocean basis, physical properties of sea water, marine chemistry, marine biology, salinity and density circulation in the oceans, waves, tides, and oceanographic instruments, tolls, and methods. The course is designed to be an in-depth treatment of oceanography concepts.

- **College credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as GOL 111 Oceanography I & GOL 112 Oceanography II for a total of 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.*

**Film Study II (21447)****One semester, one-half credit****Grade(s): 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.

**Health, Physical & Driver Education II (27410)****Full Year, one credit****Grade(s): 10***Prerequisite: Health & Physical Education I, parent and student attendance at required driver education safety meeting (state law).*

Students will demonstrate health and wellness knowledge and skills and complete the driver education classroom instruction. 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 in a variety of lifetime activities. This course emphasizes lifetime physical fitness through individual, group, dance and recreational pursuits. It emphasizes lifetime physical fitness by designing, implementing, self-assessing, and modifying a personal fitness plan. Classroom driver education instruction will focus on safe driving attitudes, skill development, risk awareness, driver alertness, driver distractions, the social and economic consequences of driving, occupant protection, positive interactions with other roadway users, and the physical and psychological conditions that affect driver performance. Students and their parents/guardians are required by state law (§22.1-205; HB1782) to attend the parent student driver education component meeting. Wakefield will conduct two meetings per semester. Successful completion of this course and attendance at the meeting entitles the student to a Driver Education Certificate (DEC-1). Successful course completion is partial prerequisite to obtain a Virginia driver's license for students less than 19 years-of-age (student will still need to successfully complete the in-car instruction).

**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(s): 9**

*Prerequisite: Successful completion of 8<sup>th</sup> 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 AP Spanish Literature. 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**

**Grade(s): 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 9 course for those students wishing further training for eventual enrollment in the AP Spanish Language and AP Spanish Literature 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(s): 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**

**Grade(s):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<sup>®</sup>) NETWORK

*Building Bridges to Your Student's Future*

Wakefield High School, Arlington, VA - 703.228.6700 - [www.apsva.us/wakefield](http://www.apsva.us/wakefield)



## What Is Advanced Placement (AP<sup>®</sup>)?

The **Advanced Placement Program (AP<sup>®</sup>)**, 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<sup>®</sup> exams are offered in 36 subjects. When the Advanced Placement (AP<sup>®</sup>) Program began in 1955, 1,229 students took AP<sup>®</sup> exams. In 2015, over 2.5 million students took more than 4.5 million exams, and over 2,000 universities worldwide use the AP<sup>®</sup> Program to some extent.

## What Is The Wakefield High School Advanced Placement (AP<sup>®</sup>) Network?

Stemming from *Wakefield's commitment to the notion that AP<sup>®</sup> courses are designed for prepared and not just “gifted” students*, the **Wakefield AP<sup>®</sup> 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 9<sup>th</sup> 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 Consult** –a class that meets every day during 3<sup>rd</sup> period to provide students with access to AP content teachers and time to complete their AP assignments.
- **AP Capstone** –a series of elective AP courses—AP Seminar and AP Research—that lead to the AP Capstone Certificate or AP Capstone Diploma.
- 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 Counseling department and the IB Coordinator or by Internet at [www.ibo.org/](http://www.ibo.org/)) Students may choose to select certain IB courses without earning the full IB Diploma. See pages 7-8 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; English Language and Literature A, Spanish Language and Literature A
- Group 2: Language Acquisition - Mandarin Chinese B, French B, Latin, Spanish B, and Arabic B
- 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:

<b>Inquirers</b>	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.
<b>Knowledgeable</b>	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.
<b>Thinkers</b>	They exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.
<b>Communicators</b>	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.
<b>Principled</b>	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.
<b>Open-minded</b>	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.
<b>Caring</b>	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.
<b>Risk-takers</b>	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.
<b>Balanced</b>	They understand the importance of intellectual, physical and emotional balance to achieve personal well-being for themselves and others.
<b>Reflective</b>	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
<b>Group 1 Language A</b>	English 9*	English 10*  AP Spanish Fluent Speakers	IB English Literature HL part 1 IB English Language and Literature SL part 1  IB Spanish Language and Literature HL (Fluent Speakers - bilingual diploma) part 1	IB English Literature HL part 2 IB English Language and Literature SL part 2  IB Spanish Language and Literature HL (Fluent Speakers - bilingual diploma) part 2
<b>Group 2 Language Acquisition</b>	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/HL 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/HL part 2 IB Latin SL/HL part 2 IB Arabic SL part 2
<b>Group 3 Individuals and Societies</b>	World History**	AP Government for Sophomores	IB History of the Americas HL part 1 AP US History***	IB Topics in 20 <sup>th</sup> Century World History HL part 2 or Group 3 elective
<b>Group 4 Experiential Sciences</b>	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)
<b>Group 5 Mathematics</b>	Geometry* or Algebra II*	Algebra II* or IB Mathematics SL part 1 (accelerated)	Algebra III 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
<b>Group 6 and Electives</b>	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
<b>Other</b>	Health/PE I	Health PE II	Elective/Generals Period/ TOK	Elective/Generals Period /TOK

Note: \*Intensified recommended. \*\* Intensified or AP recommended. \*\*\*Non-IB course however fulfills US/VA requirement for Virginia diploma. 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

Students will identify and design experiences for each component of creativity, activity, and service (CAS) drawing off of their own interests. Many experiences can be designed around curricular and extra-curricular programs. Each diploma candidate must participate in CAS experiences, during the last two years (including summer) of high school. A portion of these experiences must be services oriented. Service may be rendered individually or in groups. Information about service opportunities is available from the CAS Coordinator or the IB Office at W-L. The candidate must submit a proposal for these important experiences to the CAS Coordinator 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. During the junior year, the student decides on a topic and is assigned to a faculty supervisor. Students are expected to begin work on the project during the junior year and continue during the following summer under the supervision of a supervisor. While there is a set timeline for the extended essay components, the supervisor and student can work together to create a working 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 during the first semester of the senior year.

## INTERNATIONAL BACCALAUREATE COURSE OFFERINGS

### Group 1

#### Language A

<b>IB English Literature (HL)</b>	<b>Part I (31197)</b> <b>Part II (31198)</b>	<b>Two years, two credits</b> <b>(+ 1.0 quality point each year</b> <b>upon completion of both years)</b>
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**Grade(s): 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 completing the Internal Assessment and/or 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 English Language & Literature (SL) Part I (31190)      Two years, two credits**  
**Part II (31191)      (+ 1.0 quality point each year**  
**Grade(s): 11 - 12      upon completion of both years)**

**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 Language and Literature SL 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 Language and Literature SL course, students focus on the study of language and literature according to the prescribed IB guidelines. Students develop skills of textual analysis and the understanding that texts, both literary and non-literary, can relate to culturally determined reading practices, and are encouraged to question the meaning generated by language and texts. 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 Standard Level IB examination in English to be taken at the end of the senior year. Students not completing the Internal Assessment and/or not taking the exam will not earn the additional quality point (21190) (21191).* 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**  
**Grade(s): 11-12      upon completion of both years)**

**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 completing the Internal Assessment and/or 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**  
**Grade(s): 11-12      upon completion of both years)**

**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 6<sup>th</sup> year of the language study. Students not completing the Internal Assessment and/or 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 Arabic (SL) 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)**

**Grade(s): 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 6<sup>th</sup> year of the language study. Students not completing the Internal Assessment and/or 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.

**IB French B (SL) Part I (35157) Two years, two credits**  
**Part II (35167) (+1.0 quality point each year**  
**upon completion of both years)**

**Grade(s): 11-12**

**Open to all Grade 11 and 12 W-L students who meet the prerequisites.**

*Prerequisites: French level IV and teacher recommendation*

Students continue to develop proficiency in speaking, listening, reading, and writing, all with increasing accuracy. Grammatical structures are reviewed and refined, and emphasis is placed on vocabulary development and enrichment. Students draw their language and cultural knowledge from a variety of sources, including newspapers, magazines, recordings from radio and television programs and from literature (fiction and non-fiction), all built around the three major themes: change, groups, and leisure. *This course prepares students for the required Standard Level IB examination in French, which will be taken at the end of the 6<sup>th</sup> year of the language study. Students not completing the Internal Assessment and/or not taking the exam will not earn the additional quality point (25157) (25167).* 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 French B (HL) Part I (35158) Two years, two credits**  
**Part II (35168) (+1.0 quality point each year**  
**upon completion of both years)**

**Grade(s): 11-12**

**Open to all Grade 11 and 12 W-L students who meet the prerequisites.**

*Prerequisite: French Level IV and teacher recommendation*

At the end of the Language B course, Higher Level candidates are expected to demonstrate an ability to communicate clearly and effectively in a wide range of situations; show accuracy in the use and understanding of all essential oral and written forms of the language required in a range of styles and situations; understand a wide range of vocabulary and use a substantial part of it; select register and style which are generally appropriate to the situation, express ideas with general clarity and fluency; structure arguments in a clear, coherent and convincing way; understand and analyze fairly complex spoken and written material; assess subtleties of the language; and show an awareness of the culture (s) related to the language studied. This course prepares students for the Higher Level IB examination in French to be taken at the end of the senior year. *Students not completing the Internal Assessment and/or not taking the exam will not earn the additional quality point (25158), (25168).* This IB course is weighted by applying an additional 1.0 quality point value assigned to the final grade upon completion of the course.





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 completing the Internal Assessment and/or 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)**

**Grade(s): 11 and 12**

**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 completing the Internal Assessment and/or 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.

**Full year, one credit**

**(+1.0 quality point)**

**IB History of the Americas (HL)**

**Part 1 (32385) Grade 11**

**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 completing the Internal Assessment and/or 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.

**Full year, one credit**

**(+ 1.0 quality point upon completion of both years and HL IB examination)**

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; 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 completing the Internal Assessment and/or 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(s): 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 completing the Internal Assessment and/or 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(s): 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 completing the Internal Assessment and/or 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(s): 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 completing the Internal Assessment and/or 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)**

**Grade(s): 11 or 12**

**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 completing the Internal Assessment and/or 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)** **Full year, one credit (+1.0 quality point)**

**Grade(s): 11 or 12**

**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 completing the Internal Assessment and/or 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)**

**Grade(s): 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 completing the Internal Assessment and/or 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(s): 11 or 12**

**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 completing the Internal Assessment and/or 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.

**Full year, one credit**

**(1.0 quality point)**

#### **IB Biology (HL)**

**Part I (34376)**

**Laboratory Class**

**Part II (34377)**

**Grade(s): 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 completing the Internal Assessment and/or 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.

**Two years, two credits**

**(+1.0 quality point each year**

**upon completion of both years)**

#### **IB Chemistry (HL)**

**Part I (34476)**

**Laboratory Class**

**Part II (34477)**

**Grade(s): 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*

**Two years, two credits**

**(+1.0 quality point each year**

**upon completion of both years)**

required High Level IB examination in Chemistry, which is taken at the end of the senior year. Students not completing the Internal Assessment and/or 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) Two years, two credits**  
**Grade(s): 11 - 12 Part II (36570) (+ 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 completing the Internal Assessment and/or 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) Two years, two credits**  
**Part II (38497) (+ 1.0 quality point each year**  
**Grades 11 and 12 upon completion of both years)**

**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 completing the Internal Assessment and/or 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) Full year, double block period, two credits**  
**Laboratory Course (+1.0 quality point)**  
**Grade(s): 11 or 12**

**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 completing the Internal Assessment and/or 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)**

**Laboratory Class Part II (34577)**

**Grade(s): 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 completing the Internal Assessment and/or 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)**

**Grade(s): 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 completing the Internal Assessment and/or 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(s): 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 completing the Internal Assessment and/or 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: Analysis and Approaches (SL)**

**Part 1 (33171)**

**Grade(s): 10 or 11**

**Full Year, one credit**

**(+1.0 quality point each year**

**upon completion of both years)**

**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: Analysis and Approaches (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, and functions. As required by the IB program an internal assessment will be completed this year by each student. This internal assessment is an individual mathematical exploration. *Students taking this course are expected to move on to Part II the following year. Students not completing the Internal Assessment or not continuing to part 2 will not earn the additional quality point (23171).*

#### **IB Mathematics (SL) Part II (33172)**

**Grade(s): 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, 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 completing the Internal Assessment and/or not taking the exam will not earn the additional quality point (23171) (23172).*

**IB Mathematics: Analysis and approaches (HL)****Part I (33181)****Part II (33182)****Grade(s): 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; Intensified Pre-Calculus/IB Mathematics: Analysis and Approaches Standard Level Part I; or teacher recommendation; and a B cumulative average or better in previous math courses.*

IB Mathematics: Analysis and Approaches HL 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 Mathematics: Analysis and Approaches HL includes topics such as Vectors, Transformations, Complex Numbers, Probability & Statistics, Functions & Equations, Circular Functions & Trigonometry and Vector Geometry. IB Mathematics: Analysis and Approaches HL 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. As required by the IB program an internal assessment will be completed in part 2 by each student.

This internal assessment is an individual mathematical exploration and will account for twenty percent of the IB exam grade. *Students not completing the Internal Assessment and/or 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)****IB Mathematics (HL) Part II (33182)****Grade(s): 12****Open to all 12 W-L students who meet the prerequisites.**

*Prerequisites: Algebra I, Intensified Geometry, Algebra II, Intensified, Pre-Calculus, IB Mathematics HL part I 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 completing the Internal Assessment and/or 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)****Grade(s): 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

**Two years, two credits****(+ 1.0 quality point each year****upon completion of both years)**

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 not completing the Internal Assessment and/or not taking the exam 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.

**IB Film (HL) Part I (31147)  
Part II (31149)**

**Two years, two credits  
(+ 1.0 quality point each year  
upon completion of both years)**

**Grade(s): 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. IB 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 end of the two year course of study. *Students not completing the Internal Assessment and/or not taking the exam will not 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  
(+1.0 quality point)**

**Grade(s): 11 or 12**

**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 completing the Internal Assessment and/or 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  
(+1.0 quality point)**

**Grade(s): 11 or 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 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 not completing the Internal Assessment and/or not taking the exam 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)**

**Grade(s): 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 not completing the Internal Assessment and/or not taking the exam 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)**

**Full year, one credit  
(+1.0 quality point)**

**Grade(s): 11 or 12**

**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 not completing the Internal Assessment and/or not taking the exam 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)**

**Grade(s): 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(s): 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

**Geospatial Tools and Techniques (98423W)**

**Full year, one credit, + 1.0 quality point**

**Grade(s): 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.*

**Earth Science II: Oceanography, Dual Enrollment (24220) (94220W)**

**Full Year, one credit, +1.0 quality point**

**Grade(s):11, 12**

*Prerequisite: Earth Science and one additional laboratory science*

This course introduces students to the major topic areas of Oceanography. This course describes the role of the oceans on our earth, why they are important to us, and what influence the oceans have on the history of civilization. Oceanography deals with geography a biological oceanography and covers such topics as the geology and geography of ocean basis, physical properties of sea water, marine chemistry, marine biology, salinity and density circulation in the oceans, waves, tides, and oceanographic instruments, tolls, and methods. The course is designed to be an in-depth treatment of oceanography concepts.

- **College credit:** *This course may be dual-enrolled at Northern Virginia Community College (NOVA) as GOL 111 Oceanography I & GOL 112 Oceanography II for a total of 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.*

**Pre-Calculus, Dual Enrollment (93162W)**

**Full year, one credit, + 1.0 quality point**

**Grade(s): 9-12**

*Prerequisite(s): 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 MTH 173/174 calculus and Analytical Geometry I/II.

- **College credit:** *This course is dual-enrolled at Northern Virginia Community College (NOVA) as MTH 163 & MTH 164 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.*

## **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(s): 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**

**Grade(s): 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 & World History & Geography: 1500 AD to the Present**

**Full year, two credits, two periods (21130 & 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**

**Grade(s): 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 Ecology (24273)**

**Full year, one credit**

**Grade(s): 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. The content material will build on biological concepts that focus on the relationship and interactions between organisms and their environment. Topics include the flow of matter and energy in biotic and abiotic components of an ecosystem, geochemical processes (carbon, nitrogen, phosphorus, and oxygen cycles), chemical and biochemical processes essential for life water chemistry and the impact of water on life processes, and processes and interactions of Earth systems.

**SOAR (Success, Opportunity & Results) (20152)****Full year, one credit****Grade(s): 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****Grade(s): 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(s): 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.*

## **ADDITIONAL ADVANCED PLACEMENT COURSES OFFERED AT YORKTOWN**

### **Economics, AP (32806)**

**Full year, one credit, + 1.0 quality point**

**Grade(s): 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 & AP exam, double periods, concurrent enrollment with (34271)**

**Grade(s): 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**

**Grade(s): 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 & Virginia Government & Comparative Government, AP (32443)**

**Full year, one credit, + 1.0 quality point**

**Grade(s): 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)*

## INDEX OF COURSES OFFERED IN THE 2019-20 PROGRAM OF STUDIES

<b>ARTS EDUCATION (Pages 20-25)</b>	
COURSE NAME	CODE
Advanced Band	29234
Advanced Choir	29289
Advanced Theatre IV	21430
Art History, AP	39151
Art I	29120
Art II	29130
Art III	29140
Basso Chorus	29266
Beginning Instrumental Music	29200
Career Investigations	22010
Ceramics I	29167
Ceramics II	29168
Ceramics III	29169
Chamber Choir	29252
Chamber Orchestra	29242
Computer Graphics	29152
Computer Graphics II	29153
Computer Graphics III	29154
Concert Choir	29260
Crafts	29162
Digital Photography I	29193
Digital Photography II	29194
Digital Photography III	29195
Ensembles	*29250
Fine Arts Apprentice Program I	29290
Fine Arts Apprentice Program II	29291
Fine Arts Apprentice Program III	29292
Guitar I	29245
Guitar II	29247
Intermediate Band	29233
Introduction Sculpture	*29165
Introduction to Crafts	*29160
Jazz Instrumental Lab/Ensemble	29251
Jazz/Pop Vocal Lab Ensemble	29280
Marching Band	*29254
Music Theory, AP	39226
Painting & Drawing	*29163
Sculpture	29166
Song Writing, Digital Audio, & Music	29225
String Orchestra	29244
Studio Art, AP	39149
Technical Theatre	21435
Theatre Arts I	21400
Theatre Arts II	21415
Theatre Arts III	21425
Treble Chorus	29263

<b>CAREER AND TECHNICAL EDUCATION (Pages 26-99 &amp; 74-99)</b>	
COURSE NAME	CODE
Advanced Animal Science I/Small Animal Care I	28062
Advanced Animal Science II/Small Animal Care II	28063
Advanced Drawing & Design	28440
Aerospace Engineering	28498
Air Force Junior ROTC I	28741
Air Force Junior ROTC II	28742
Air Force Junior ROTC III	28743
Air Force Junior ROTC IV	28744
Air Force Junior ROTC V	28745
Air Force Junior ROTC VI	28746
Automotive Collision Repair I	28677
Automotive Collision Repair II	28678
Automotive Collision Repair III	28680
Automotive Technology I	28509
Automotive Technology II	28507
Automotive Technology III	28508
Aviation Technology	28731
Barbering I	28531
Barbering II	28532
Barbering III	28526
Biotechnology Techniques & Applications	28467
Biotechnology Techniques & Applications	28467
Child Development & Parenting	28232
Child Development & Parenting I	*28230
Computer Assisted Architectural Drawing	28408
Computer Assisted Engineering Drawing	28438
Computer Assisted Technical Drawing	28439
Computer Information Systems	26614
Computer Information Systems, Dual Enrollment	96614W
Computer Information Systems, Advanced	26649
Computer Information Systems, Advanced, Dual Enrollment	96649W
Computer Integrated Production Engineering	28493
Computer Programming	26638
Computer Programming, Dual Enrollment	96638W
Computer Programming Advanced	26643
Computer Programming Advanced, Dual Enrollment	96643W
Computer Programming Intensified, Dual Enrollment	96644W
Computer Science	26639
Computer Science Principles, AP	33186
Computer Science, AP	33185
Construction Technology	28512
Cooperative "Coop" Education Work Experience	28951
Cosmetology I	28528
Cosmetology II	28529
Cosmetology III	28530
Culinary Arts & Sciences I	28522
Culinary Arts & Sciences II	28523
Culinary Arts III :Specialization	28524

<b>CAREER AND TECHNICAL EDUCATION (Pages 26-99 &amp; 74-99)</b>	
<b>COURSE NAME</b>	<b>CODE</b>
Cybersecurity I: Networks	*26653
Cybersecurity I: Operating Systems	*26654
Cybersecurity I: Systems Administration	*26655
Cybersecurity I: Telecommunications & Routing Protocols	*26656
Cybersecurity II: Network Operations	26657
Cybersecurity II: Network Operations Advanced	26658
Database Design & Management, Dual Enrollment	96660W
Design, Multimedia, & Web Technologies	26646
Digital Animation	28457
Digital Electronics	26671
Dynamic Communication	*21517
Early Childhood Education I	28235
Early Childhood Education II	28236
Education for Employment Development Year 1	29087
Education for Employment Preparation Year 2	29088
Electricity I	28534
Electricity II	28535
Emergency Medical Technician/Basic Human Anatomy & Physiology	98334W
Engineering I: Intro to Engineering Design	28491
Engineering II: Principles of Engineering	28492
Engineering Capstone: Design & Development	28494
Entrepreneurship	29094
Entrepreneurship, Advanced	29095
Food & Fitness	28274
Food & Fitness	*28272
Forensic Technology w/ Application in Biotechnology	28325
Graphic Communications System	28458
Health Sciences	28303
Intro to Business & Marketing	26112
Introduction to Fashion Careers	28147
Introduction to Game Design	28461
Introduction to Information Technology	26116
Introduction to Information Technology, Dual Enrollment	96116W
Introduction to Interior Design	28289
Leadership Capstone	28956
Materials & Processes Technology	28305
Medical Terminology	28383
Pharmacy Technician	28305
Photo & Video Technology I	28625
Photo & Video Technology II	28626
Physical Therapy/Sports Medicine Technology	28332
Professional Related Intern-Mentorship Experience (PRIME)	29060
Robotic Design	28421
School-to-Work Transition/Internship	29828
Sports, Entertainment, & Recreation Marketing	28123
Sustainable & Renewable Technologies	28460

Teachers for Tomorrow I	29062
Teachers for Tomorrow I, Dual Enrollment	99062W
Teachers for Tomorrow II	29063
Technical Animal Science I/Veterinary Science I	28064
Technical Animal Science II/Veterinary Science II	28061
Technology Computer Applications	26153
Television & Multimedia Production II	28690
Television & Multimedia Production III	28691
Television Production I	28689
Web Page Design & Multimedia, Dual Enrollment	96646W

<b>ENGLISH LANGUAGE ARTS (Pages 34-37)</b>	
<b>COURSE NAME</b>	<b>CODE</b>
American Civilization: American History & Literature (YHS only)	22375/ 21175
American Civilization: English & Social Studies Intensified	21176/ 22376
Elements & Strategies of Reading	21180
English 9	21130
English 9 & World History & Geography: 1500 AD to the Present (YHS only)	21130/ 22216
English 9 & World History, Intensified	21132/ 22343
English 10	21140
English 10, Intensified	21142
English 11	21150
English 11, (College Composition) Dual Enrollment	91150W
English 11 Extension	21185
English 11 Strategies (ACHS only)	21151
English 12	21160
English 12, Dual Enrollment	91160W
English 12, (British & World Literature) Dual Enrollment	91161W
English Language & Composition, AP Grade 11	31196
English Literature & Composition, AP Grade 12	31195
Film Study	*21446
Film Study II	*21447
Journalism: Broadcast	21218
Journalism: Literary Magazine	21207
Journalism: Newspaper	21205
Journalism: Yearbook	21209
Remedial Independent Self-Paced Education-Reading	*20202
Remedial Independent Self-Paced Education-Writing	*20201
World Literature	21518

<b>HEALTH &amp; PHYSICAL EDUCATION (Pages 38-39)</b>	
<b>COURSE NAME</b>	<b>CODE</b>
Adaptive Physical Education - Gr 9	27670
Adaptive Physical Education - Gr 10	27680
Adaptive Physical Education - Gr 11	27690
Adaptive Physical Education - Gr 12	27700
Driver Education and Safety	*27010

<b>HEALTH &amp; PHYSICAL EDUCATION (Pages 38-39)</b>	
<b>COURSE NAME</b>	<b>CODE</b>
Driver Education and Safety	*27011
Health & Physical Education HILT	27330
Health & Physical Education I	27300
Health & Physical Education II	27400
Health I	*27320
Health, Physical & Driver Education II (WKHS only)	27410
Physical Education III (Semester 1)	*27510
Physical Education III (Semester 2)	*27515
Physical Education IV (Semester 1)	*27610
Physical Education IV (Semester 2)	*27615

<b>HIGH INTENSITY LANGUAGE TRAINING (Page 39)</b>	
<b>COURSE NAME</b>	<b>CODE</b>
English 10 HILTEX	20799
English 10 HILTEX	20799
English 9 HILTEX	20796
HILT A Accelerated Lit. Language Development	20775
HILT A Accelerated Lit. Reading Development	20776
HILT A English	20786
HILT A Reading	20787
HILT A Science	20780
HILT A Social Studies	20789
HILT A Speaking/Writing	20788
HILT B English	20790
HILT B Reading	20791
HILT B Science	20781
HILT B Social Studies	20793
HILT Environmental Science	24362
HILT Principles of Physics	24501
HILT/HILTEX Grammar Development (ACHS only)	20891
HILTEX A Social Studies	20795
HILTEX Biology	24317
Reading 10 HILTEX	20797
Reading 9 HILTEX	20794
World History & Geography, 1500 AD to the present, HILTEX	22345

<b>MATHEMATICS (Pages 40-45)</b>	
<b>COURSE NAME</b>	<b>CODE</b>
Algebra I	23130
Algebra I, Part I	23131
Algebra I, Part II	23132
Algebra II	23135
Algebra II/Trigonometry, Intensified	23136
Algebra III	23155
Algebra, Functions & Data Analysis	23145
Calculus AB, AP	33177
Calculus BC, AP	33179
Calculus with Analytic Geometry, Dual Enrollment	93173W

Calculus, Dual Enrollment	93176W
Differential Equations	93180W
Geometry	23143
Geometry, Intensified	23141
Geometry, Principles	23142
High School General Mathematics	23120
Linear Algebra	93165W
Math Foundations	23111
Multivariable Calculus	93178W
Pre-Algebra	23113
Pre-Calculus, Dual Enrollment	93162W
Pre-Calculus, Intensified	23164
Pre-Calculus/Trigonometry	23162
Probability & Statistics	23190
Quantitative/Qualitative & Statistical Analysis, Dual Enrollment	93166W
Quantitative Analysis, Dual Enrollment	93167W
Remedial Independent Self-Paced Education-Algebra	20203
Remedial Independent Self-Paced Education	20204
Statistics I/II, Dual Enrollment	93163W
Statistics, AP	33192
Strategies, Algebra I	23124
Strategies, Algebra II	23126
Strategies, Geometry	23128
Vector Calculus	93175W

<b>SCIENCE (Pages 46-50)</b>	
<b>COURSE NAME</b>	<b>CODE</b>
Anatomy/Physiology, Dual Enrollment	98085W
Arlington Tech Capstone Experience	28955
Astronomy	24700
Biology	24310
Biology II/Human Biology	28085
Biology Laboratory Course Intensified Immersion	24319
Biology, AP	34370
Chemistry	24410
Chemistry, AP	34470
Earth Science	24210
Earth Science II: Oceanography	24220
Earth Science II: Oceanography, Dual Enrollment	94220W
Environmental Science	24361
Ecology	24365
Environmental Science, AP (WKHS & YHS only)	34270
General Biology, Dual Enrollment	94310W
General College Physics I/II, Dual Enrollment	94501W
General Environmental Science, Dual Enrollment	94270W
Geospatial Tools & Techniques (WL only)	98423W
Intensified Biology	24315
Intensified Chemistry	24415
Intensified Earth Science	24215
Intensified Ecology (YHS only)	24273
Intensified Physics	24515

<b>SCIENCE (Pages 46-50)</b>	
<b>COURSE NAME</b>	<b>CODE</b>
Introduction to Biology (ACHS only)	24301
Introduction to Earth/Space Science (ACHS only)	24201
Physics	24510
Physics C: Mechanics & Electricity & Magnetism, AP	34570
Physics I, AP	34578
Physics, II, AP	34579
Physics, Principles of	24500
Principles of Chemistry (YHS only)	24400
Remedial Independent Self-Paced Education-Biology	*20205
Remedial Independent Self-Paced Education-Earth Science	*20206
Selected Topics in Biology	34371
Selected Topics in Chemistry	34471
Selected Topics in Environmental Science, AP	34271
Selected Topics in Physics C	34571
Selected Topics in Physics I	34568
Selected Topics in Physics II	34569
Standard Biology (YHS only)	24312

United States & Virginia Government	22440
United States & Virginia Government, Dual Enrollment	92240W
United States & Virginia Government, AP	32445
United States & Virginia History	22360
United States & Virginia History, AP	32319
United States & Virginia History, Dual Enrollment	92360W
US & VA Government & Comparative, AP (YHS only)	32443
Virtual Economics & Personal Finance	22212V
Virtual United States & Virginia Government	22440V
Virtual United States & Virginia History	22360V
World Affairs	*22388
World Geography	22210
World History & English 9, Intensified	22343/ 21132
World History & Geography, 1500 A.D. to the Present	22216
World History & Geography: Beginning to 1500 AD	22215
World History & Geography: Beginnings to 1500 AD, Intensified	22219
World History, AP	32400

<b>SPECIAL EDUCATION (Pages 58-62)</b>	
<b>COURSE NAME</b>	<b>CODE</b>
Algebra I, Part I	20008
Applications in Earth & Space Science	24211
Biology, Part I	20020
Biology, Part II	20021
Earth Science Part I (WKHS only)	20045
Earth Science Part II (WKHS only)	20046
English	20035
English 9	20001
English 10	20002
English 12	20004
Instructional Studies	20028
Literature & Composition	20003
Living Skills	20026
Mathematics	20036
Occupational Knowledge	20998
Occupational Training/Education for Employment	20976
Occupational Exploration	20999
Personal Living & Finances	20055
Principles of Physics	20049
Reading	20014
Reading	20015
Reading	*20006
Science	20038
Selected Topics in Geometry	20054
Social Skills	20023
Social Studies	20039
US History Applications	20053
Virginia & U.S. Government	20018

<b>SOCIAL STUDIES (Pages 51-57)</b>	
<b>COURSE NAME</b>	<b>CODE</b>
African American Studies (WKHS only)	22371
American Civilization: American History & Literature (YHS only)	22375/ 21175
American Civilization: English & Social Studies Intensified (WKHS only)	21176/ 22376
Economics & Personal Finance	22212
Economics & Personal Finance Immersion	22211
Economics, AP (WKHS & YHS only)	32806
Economics, Dual Enrollment	92801W
English 9 & World History & Geography: 1500 AD to the Present (YHS only)	21130/ 22216
English 9 & World History, Intensified	21132/ 22343
European History, AP	32399
Human Geography, AP	32212
Introduction to Law	*22218
Introduction to US/VA History (ACHS only)	22202
Introduction to World Geography (ACHS only)	22201
Introduction to World History & Geography (ACHS)	22203
Leadership Skills for Diversity Peer Trainers	22700
Psychology	22900
Psychology, AP	32902
Remedial Independent Self-Paced Education-US/VA Government	*20209
Remedial Independent Self-Paced Education-World Geography	*20208
Remedial Independent Self-Paced Education-World History II	*20207
Sociology	22500

<b>SPECIAL EDUCATION (Pages 58-62)</b>	
<b>COURSE NAME</b>	<b>CODE</b>
Virginia & U.S. History	20017
Virginia & U.S. History, Part I	20016
Virginia & U.S. History, Part II	20019
World Geography	20040
World History & Geography, Part I	20051
World History & Geography to the Present, Part II	20052
Writing	*20005

<b>WORLD LANGUAGES (Pages 63-73)</b>	
<b>COURSE NAME</b>	<b>CODE</b>
Advanced Studies in French	25160
Advanced Studies in Latin	25360
Advanced Studies in Spanish	25560
American Sign Language I	25990
American Sign Language II	25995
American Sign Language III	25997
American Sign Language IV	25992
Arabic I	25800
Arabic II	25822
Arabic III	25830
Arabic IV	25840
Arabic V	25841
Chinese I	25615
Chinese II	25625
Chinese III	25630
Chinese IV	25640
Chinese Language & Culture, AP	35860
French I	25110
French II	25120
French III	25130
French IV	25140
French V	25150
French Language & Culture, AP	35165
German I	25210
German II	25220
German III	25230
German IV	25240
German Language & Culture, AP	35235
Japanese I	25910
Japanese II	25920
Japanese III	25930
Latin I	25310
Latin II	25320
Latin III	25330
Latin IV	25340
Latin V	25350
Latin V, AP	35350
Spanish for Fluent Speakers I	25517
Spanish for Fluent Speakers II	25527

Spanish for Fluent Speakers III	25537
Spanish I	25510
Spanish II	25520
Spanish III	25530
Spanish Immersion 9	25511
Spanish Immersion 10	25521
Spanish IV	25540
Spanish V	25550
Spanish Language & Culture, AP	35565
Spanish Literature, AP	35580

<b>IB COURSES AT WASHINGTON-LEE (Pages 113-131)</b>	
<b>COURSE NAME</b>	<b>CODE</b>
IB Arabic (SL) Part I	35841
IB Arabic (SL) Part II	35845
IB Biology (HL) Part I	34376
IB Biology (HL) Part II	34377
IB Biology (SL)	34378
IB Business & Management (SL)	36114
IB Chemistry (HL) Part I	34476
IB Chemistry (HL) Part II	34477
IB Computer Science (HL) Part I	36560
IB Computer Science (HL) Part II	36570
IB Design Technology (SL) Part I	38496
IB Design Technology (SL) Part II	38496
IB Economics (SL)	32802
IB English (HL) Part I	31197
IB English (HL) Part II	31198
IB English Language & Literature (SL) Part I	31190
IB English Language & Literature (SL) Part II	31191
IB Environmental Sys. & Societies (SL)	34275
IB Film (HL) Part I	31147
IB Film (HL) Part II	31149
IB Film (SL) Part I	31144
IB Film (SL) Part II	31145
IB French B (HL) Part I	35158
IB French B (HL) Part II	35168
IB French B (SL) Part I	35157
IB French B (SL) Part II	35167
IB Geography (SL)	32210
IB History of the Americas (HL) Part I	32385
IB Information Technology in a Global Society	36613
IB Latin (HL) Part I	35362
IB Latin (HL) Part II	35372
IB Latin (SL) Part I	35357
IB Latin (SL) Part II	35367
IB Mandarin Chinese (SL) Part I	35815
IB Mandarin Chinese (SL) Part II	35825
IB Mathematical: Analysis & approaches (SL) Part I	33171
IB Mathematical (SL) Part II	33172
IB Mathematical Studies (SL)	33170
IB Mathematics: Analysis & approaches (HL) Part I	33181

**IB COURSES AT WASHINGTON-LEE**  
**(Pages 113-131)**

<b>COURSE NAME</b>	<b>CODE</b>
IB Mathematics (HL) Part II	33182
IB Music (SL)	39227
IB Philosophy (SL)	32600
IB Physics (SL) Part I	34576
IB Physics (SL) Part II	34577
IB Psychology (HL) Part I	32903
IB Psychology (HL) Part II	32904
IB Psychology (SL)	32901
IB Social Anthropology (HL) Part I	32375
IB Social Anthropology (HL) Part II	32377
IB Social Anthropology (SL)	32372
IB Spanish B (HL) Part I	35578
IB Spanish B (HL) Part II	35588
IB Spanish B (SL) Part I	35575
IB Spanish B (SL) Part II	35585
IB Spanish Language & Literature (HL) Part I	35577
IB Spanish Language & Literature (HL) Part II	35587
IB Sports, Exercise, & Health Science (SL) Part I	38055
IB Sports, Exercise, & Health Science (SL) Part II	38057
IB Theatre Arts (HL) Part I	39142
IB Theatre Arts (HL) Part II	39143
IB Theatre Arts (SL)	39141
IB Topics in 20th Century World History (HL) Part II	32386
IB Visual Arts (HL) Part I	39146
IB Visual Arts (HL) Part II	39148
IB Visual Arts (SL)	39144
Theory of Knowledge	22605

**ADDITIONAL COURSES**

<b>COURSE NAME</b>	<b>CODE</b>
Consult, AP (WKHS & WL)	20184
Instructional Studies	*20030
Research, AP (WKHS only)	32112
Seminar, AP (WKHS only)	32110
Senior Project (*21095 semester option) (WKHS only)	20190
Senior Project Independent Study (WKHS only)	20191
SOAR (YHS only)	20152
Volunteer Service (*20156 semester option)	20155

*\*Semester Course*

**APPENDIX A**  
**Arlington Public Schools**  
**Fine Arts Course Offerings**

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)  
Studio Art, AP (39149)  
Art History, AP (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 & Drawing (S) (29163)  
Computer Graphics (29152)  
Computer Graphics II (29153)  
Computer Graphics III (29154)  
Digital Photography I (29193)  
Digital Photography II (29194)  
Digital Photography III (29195)  
Introduction to Sculpture (S) (29165)  
Sculpture (29166)  
Television Production I (28689)  
Television & Multimedia Production II (28690)  
Television & Multimedia Production III (28691)

**Music**

Chamber Choir (29252)  
Concert Choir (29260)  
Treble Chorus (29263)  
Basso 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)  
IB Music SL (39227)  
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)  
Advanced Theatre Arts IV (21430)  
Technical Theatre (21435)  
IB Theatre Arts SL (39141)  
IB Theatre Arts HL Part I (39142) Part II (39143)  
Film Study (S) (21446)  
IB Film SL Part I (31144) Part II (31145)  
IB Film HL Part I (31147) Part II (31149)

**Fine Arts Apprenticeship Program**

Fine Arts Apprenticeship Program I (29290)  
Fine Arts Apprenticeship Program II (29291)  
Fine Arts Apprenticeship Program III (29292)

**APPENDIX B**  
**Arlington Public Schools**  
**Career & Technical Education (CTE) Courses at a Glance**

<b>2019-20 Course Offerings</b>	<b>Career Center</b>	<b>Wakefield</b>	<b>W-Lee</b>	<b>Yorktown</b>
<b>Business &amp; Information Technology</b>				
Computer Information Systems (26614)	X	X	X	X
Computer Programming (26638)	X			
Computer Programming Advanced (26643)	X	X	X	X
Cybersecurity I: Networks (26653)	X			
Cybersecurity I: Operating Systems (26654)	X			
Cybersecurity I: Systems Administration (26655)	X			
Cybersecurity I: Telecommunications & Routing Protocols (26656)	X			
Cybersecurity II: Network Operations (26657)	X			
Cybersecurity II: Network Operations Advanced (26658)	X			
Cooperative “Coop” Work Experience I, II, III , requires concurrent CTE Course enrollment, (28951, 28953, 28954)	X	X	X	X
Web Page Design & Multimedia (26646)	X	X	X	X
Technology Computer Applications (26153)		X	X	X
Entrepreneurship (29094)	X	X	X	X
Entrepreneurship Advanced (29095)	X	X	X	X
Introduction to Business & Marketing (26112)		X	X	X
Introduction to Information Technology (26116)	X	X	X	X
IB Business & Management SL (36114)			X	
<b>Computer Science</b>				
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	
<b>Marketing</b>				
Introduction to Business & Marketing (26112)		X	X	X
Sports, Entertainment, & Recreation Marketing (28123)		X	X	X
<b>Family &amp; Consumer Sciences</b>				
Child Development & Parenting – Year (28232) Semester (28230)		X	X	X
Early Childhood Education I (28235) & II (28236)	X			
Food & 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) & II (29063)	X	X	X	X
<b>Technical Education/Trade &amp; Industrial Programs</b>				
Advanced Animal Science: Small Animal Care I/ (28062) & II (28063)	X			
Advanced Drawing & Design (28440)	X	X	X	X
Aerospace Engineering (28498)	X			
Air Force Junior ROTC I (28741) & II (28742)	X			
Air Force Junior ROTC III (28743) & IV (28744)	X			

<b>2019-20 Course Offerings</b>	<b>Career Center</b>	<b>Wakefield</b>	<b>W-Lee</b>	<b>Yorktown</b>
Air Force Junior ROTC V (28745) & VI (28746)	X			
Automotive Collision Repair I (28677), II (28678) & III (28680)	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 & Applications (28467)	X			
Computer Assisted Architectural Drawing (28408)	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 & Sciences I (28522) & II (28523)	X			
Culinary Arts III: Specialization (28524)	X			
Digital Animation (28457)	X			
Electricity I (28534) & II (28535)	X			
EMT/Basic Human Anatomy & Physiology (28334)	X			
Engineering I: Intro to Engineering Design (28491)	X	X	X	X
Engineering II: Principles of Engineering (28492)	X	X	X	X
Digital Electronics (26671)	X			
Computer Integrated Production Engineering (28493)	X			
Engineering Capstone: Design & Development (28494)	X	X	X	X
Forensic Technology with Application in Biotechnology (28325)	X			
Graphic Communications Systems (28458)	X			
Health Sciences (28303)	X			
IB Design Technology Part I (38496)			X	
IB Design Technology Part II (38497)			X	
Materials & Processes	X			
Medical Terminology (28283)	X			
Pharmacy Technician (28305)	X			
Physical Therapy/Sports Medicine Technology (28332)	X			
Photo & Video I (28625)	X			
Photo & Video II (28626)	X			
Robotic Design (28421)	X			
School to Work Transition Internship (29828)	X			
Technical Animal Science I/Veterinary Science I (28064) & II (28061)	X			
Sustainable & Renewable Technologies (28460)	X			
Television Production I (28689)	X			
Television & Multimedia Production II (28690)	X			
Television & Multimedia Production III (28691)	X			
Advanced Animal Science I/Small Animal Care I (28062) & 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 Enrolled Course Offerings**



Arlington Career Center			
High School Course Title	NOVA Course	NOVA Course Title	NOVA Credits
Automotive Technology I (98509W)	AUT 100	Introduction to Automotive Shop Practices	2
Automotive Technology II (98507W)	AUT 265	Automotive Braking Systems	4
Automotive Technology III (98508W)	AUT 266	Automotive Alignment, Suspension and Steering	4
Anatomy/Physiology (98085W)	BIO 141	Human Anatomy and Physiology I	4
Calculus (93176W)*	MTH 263	Calculus I	4
Calculus w/Analytic Geometry (93173W) *	MTH 264	Calculus II	4
Computer Assisted Technical Drawing (98439W)	CAD 140	Technical Drawing	3
Computer Assisted Architectural Drawing (98408W)	ARC 123/124	Architectural Graphics I/II	6
Computer Assisted Engineering Drawing (98438W)	EGR 115	Engineering Graphics	3
Computer Information Systems (96614W)	ITN 100 ITE 170	Intro to Telecommunications/ Multimedia Software	6
Computer Information Systems, Advanced (96649W)	ITE 115	Introduction to Computer Applications & Concepts	3
Computer Programming (96638W)	ITP 100	Software Design	3
Computer Programming Advanced (96643W)	CSC 200/ CSC 201	Introduction to Computer Science Computer Science I	8
Computer Programming Intensified (96644W)	ITP 100 CSC 200	Software Design Introduction to Computer Science	7
Cybersecurity I: Network (96653W)	ITE 115	Introduction to Computer Applications and Concepts	3
Cybersecurity II: Network Operations (96657W)	ITN 200	Administration of Network Resources	3
Cybersecurity I: Systems Administration (96655W)	ITN 101	Introduction to Network Concepts	3
Cybersecurity I: Operating Systems (96654W)	ITN 106	Microcomputer Operating Systems	3
Cybersecurity I: Telecommunications & Routing Protocols (96656W)	ITN 171	Unix I	3
Cybersecurity II: Network Operations, Advanced (96658W)	ITN 260	Network Security Basics	3
Database Design & Management (96660W)	ITD 256	Advanced Database Management	3
Early Childhood Careers II (98236W)	CHD 120 CHD 165	Introduction to Early Childhood Education Observation & Participation in Early Childhood	6
Economics DE (92801W)*	ECO 201/202	Principles of Macroeconomics/Microeconomics	6
EMT/Human Anatomy & Physiology (98334W)	EMS 111 EMS 120	Emergency Medical Technician-Basic Emergency Medical Technician- Basic Clinical	8
English 11 DE* (College Composition) (91150W) *	ENG 111/112	College Composition I/II	6
English 12 DE (91160W)*	ENG 111/112	College Composition I/II	6
English 12 DE (British & World Literature) (91161W) *	ENG 243/244	Survey of English Literature I/II	6
Entrepreneurship I (99094W)*	BUS 116	Entrepreneurship	3
General Biology DE* (94310W)*	BIO 101/102	General Biology I/II	8
General Environmental Science (94270W) *	ENV 121/122	General Environmental Science I/II	8
General College Physics DE I/II (94501W) *	PHY 201/202	General College Physics I/II	8
Health Sciences (98383W)	HIM 111	Medical Terminology I	3
Introduction to Information Technology (96116W)	ITE 115 ITE 100	Introduction to Computer Applications & Concepts Introduction to Information Systems	6
Pre-Calculus DE (93162W)*	MTH 163/164	Pre-Calculus I/II	6
Quantitative Analysis (93167W)*	MTH 154	Quantitative Reasoning	3

Arlington Career Center, continued			
High School Course Title	NOVA Course	NOVA Course Title	NOVA Credits
Quantitative/ Qualitative & Statistical Analysis (93166W)*	MTH 154 MTH 155	Quantitative Reasoning Statistical Reasoning	6
Intermediate Spanish I/II DE (95501W)*	SPA 201/202	Intermediate Spanish I/II	6
Statistics I/II DE (93163W)*	MTH 245	Statistics I	3
Teachers for Tomorrow I (99062W)	EDU 200	Introduction to Teaching as a Profession	3
TV Production I (98689W)	PHT 130	Video I	3
TV Production II (98690W)	PHT 131	Video II	3
US VA History DE (92360W) *	HIS 121/122	United States History I/II	6
US VA Government DE (92240W)	PLS 211/212	U.S. Government I/II	6
Web Page Design & Multimedia (96646W)	ITD 110/210	Web Page Design I & II	6
*Available only to full time Arlington Career Center students			
Arlington Community High School			
High School Course	NOVA Course	NOVA Course Title	NOVA Credits
English 12 DE (91160W)	ENG 111/112	College Composition I/II	6
US VA Government DE (92240W)	PLS 211/212	U.S. Government I/II	6
Web Page Design & Multimedia (96646W)	ITD 110/210	Web Page Design I & II	6
H B Woodlawn High School			
High School Course	NOVA Course	NOVA Course Title	NOVA Credits
Differential Equations (93180W)	MTH 267	Differential Equations	3
Linear Algebra (93165W)	MTH 266	Linear Algebra	3
Multivariable Calculus (93178W)	MTH 265	Calculus III	4
Quantitative Analysis (93167W)	MTH 154	Quantitative Reasoning	3
Quantitative/ Qualitative & Statistical Analysis (93166W)	MTH 154 MTH 155	Quantitative Reasoning Statistical Reasoning	6
Vector Calculus (93175W)	MTH 265	Calculus III	4
Wakefield High School			
High School Course	NOVA Course	NOVA Course Title	NOVA Credits
Anatomy/Physiology (98085W)	BIO 141	Human Anatomy and Physiology I	4
Differential Equations (93180W)	MTH 267	Differential Equations	3
Earth Science II: Oceanography DE (94220W)	GOL 111/112	Oceanography I/II	8
English 12 DE (91160W)	ENG 111/112	College Composition I/II	6
Linear Algebra (93165W)	MTH 266	Linear Algebra	3
Multivariable Calculus (93178W)	MTH 265	Calculus III	4
Quantitative Analysis (93167W)	MTH 154	Quantitative Reasoning	3
Quantitative/ Qualitative & Statistical Analysis (93166W)	MTH 154 MTH 155	Quantitative Reasoning Statistical Reasoning	6
Teachers for Tomorrow I (99062W)	EDU 200	Introduction to Teaching as a Profession	3
US VA Government DE (92240W)	PLS 211/212	U.S. Government I/II	6
Vector Calculus (93175W)	MTH 265	Calculus III	4
Washington-Lee High School			
High School Course	NOVA Course	NOVA Course Title	NOVA Credits
Differential Equations (93180W)	MTH 267	Differential Equations	3
Linear Algebra (93165W)	MTH 266	Linear Algebra	3
Multivariable Calculus (93178W)	MTH 265	Calculus III	4
Earth Science II: Oceanography DE (94220W)	GOL 111/112	Oceanography I/II	8
Linear Algebra (93165W)	MTH 266	Linear Algebra	3
Pre-Calculus DE (93162W)	MTH 163/164	Precalculus I/II	6
Quantitative Analysis (93167W)	MTH 154	Quantitative Reasoning	3
Quantitative/ Qualitative & Statistical Analysis (93166W)	MTH 154 MTH 155	Quantitative Reasoning Statistical Reasoning	6

Washington-Lee High School, continued			
High School Course	NOVA Course	NOVA Course Title	NOVA Credits
Teachers for Tomorrow I (99062W)	EDU 200	Introduction to Teaching as a Profession	3
US VA Government DE (92240W)	PLS 211/212	U.S. Government I/II	6
Vector Calculus (93175W)	MTH 265	Calculus III	4
Yorktown High School			
High School Course	NOVA Course	NOVA Course Title	NOVA Credits
Differential Equations (93180W)	MTH 267	Differential Equations	3
Linear Algebra (93165W)	MTH 266	Linear Algebra	3
Multivariable Calculus (93178W)	MTH 265	Calculus III	4
Quantitative Analysis (93167W)	MTH 154	Quantitative Reasoning	3
Quantitative/ Qualitative & Statistical Analysis (93166W)	MTH 154 MTH 155	Quantitative Reasoning Statistical Reasoning	6
Teachers for Tomorrow I (99062W)	EDU 200	Introduction to Teaching as a Profession	3
US VA Government DE (92240W)	PLS 211/212	U.S. Government I/II	6
Vector Calculus (93175W)	MTH 265	Calculus III	4

*Approved dual enrollment courses may be offered at different APS locations based on teacher availability*

Dual enrollment courses offered through Northern Virginia Community College (NOVA) that take place in the high school, during the school day, and are currently free of charge. This free tuition applies to any course taken within the high school that is included in the contract between the school district and NOVA.

- All students must demonstrate college readiness to take Dual Enrollment classes. Placement testing or exemptions through PSAT, SAT, ACT, AP or SOL results will determine if the student is eligible to take a course. See counselor for Intent to Pursue DE Course(s) Form.
- Taking a dual enrollment course requires the student to apply online with NOVA at <https://apply.vccs.edu/>
- Under section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA), disability services are available to students if they are currently enrolled, have a documented disability that substantially limits them in one or more of life's major activities, and are otherwise academically qualified. Please carefully review the information on NOVA's Disability Services website: <https://nvcc.edu/disability-services/>
- A dual enrolled student is expected to engage in college level course content and discussions appropriate for adult learners.
- Dual enrollment courses are part of a NOVA transcript, which must be sent to any college/university to which the student attends.
- The student's lack of participation/attendance may negatively affect his/her ability to stay in a dual enrollment course. Should the student not pass the first semester of a 2-semester (full-year) course, he/she will be automatically dropped from the second semester dual enrollment class.

For more information, please visit [www.apsva.us/dualenrollment](http://www.apsva.us/dualenrollment)

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**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 &amp; Composition = ENG 111 &amp; 112            AP Literature &amp; Composition = ENG 111 &amp; 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  <b>Dual Enrollment grade of a C or higher</b>  <b>DE ENG 111 / 112 College Composition I &amp; II (WHS, ACC) (6 NOVA Credits)</b></p>
MTH 154 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  <b>Dual Enrollment grade of a C or higher</b>  <b>DE MTH 154 - Math for Liberal Arts I/II (WHS, WLHS) (3 NOVA Credits)</b>  <b>DE MTH 161/162- Pre-Calculus I &amp; II (WLHS, ACC) (6 NOVA Credits)</b>  <b>DE MTH 263- Calculus I (ACC) (4 NOVA Credits)</b>  <b>DE MTH 265- Calculus III (HBW, WHS, WLHS, YHS) (4 NOVA Credits)</b>  <b>DE MTH 266- Linear Algebra (WLHS) (3 NOVA Credits)</b></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  <b>Dual Enrollment grade of a C or higher</b>  <b>DE Biology II- Biology 141 (ACC) (4 NOVA Credits)</b>  <b>DE PHY 201- General College Physics I (ACC) (4 NOVA Credits)</b></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 &amp; US History = HIS 121-122            AP World History = HIS 111-112            AP Comparative Government &amp; Politics = PLS 120            AP Virginia &amp; 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  <b>Dual Enrollment grade of a C or higher</b>  <b>DE PLS 211/212- US Government I &amp; II (After school at Langston) (6 NOVA Credits)</b></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><b>Dual Enrollment grade of a C or higher</b>  <b>DE SDV 100- College Success Skills (ACC)</b></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 & 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 2019-20:**

- Art History, AP
- Economics & 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/>***