



# Stafford County Public Schools

*Inspire | Empower | Excel*

## 2019-2020 High School Program of Studies



**Brooke Point**



**Colonial Forge**



**Mountain View**



**North Stafford**



**Stafford**

Stafford County Public Schools continuously conducts program evaluations which could result in the alteration or discontinuation of some programs. Courses may be cancelled as a result of low enrollment, staffing and/or budget limitations.



# INTRODUCTION

## VISION

Stafford County Public Schools is a dynamic, goal-oriented learning community committed to preparing our students for success in further education, work, and citizenship.

## MISSION

Inspire and empower all learners to thrive.

## WHAT WE VALUE

**Learners:** We believe in the power of teaching and learning to develop and advance individuals and communities.

**Community:** We work together in a safe, nurturing environment where everyone is valued and supported.

**Excellence:** We cultivate and challenge each individual to excel through a wide range of experiences.

**Respect:** We recognize and value diversity of culture and thought, treating ourselves and others with honor and dignity.

**Integrity:** We are honest, open, and principled.

## C5W

### Communication

All Century Learners express and exchange our thoughts and ideas effectively using oral, written, and nonverbal communication skills in a variety of contexts. We engage in discussion and debate, ask thoughtful, respectful questions, and listen actively to others.

### Collaboration

All Century Learners engage positively with others to achieve common goals. We actively participate in this process through deliberation, encouragement, flexibility, reflection, responding to constructive criticism, and honoring the strengths in others and in ourselves.

### Critical Thinking

All Century Learners engage in inquiry, experimentation, and problem solving. We research and use credible sources and methods to evaluate, justify our thinking, and develop solutions for real world challenges.

### Creativity

All Century Learners develop and use inventive and imaginative processes to construct innovative ideas and original work. We consider issues from a variety of perspectives and look for solutions that demonstrate improvement, new understandings, and divergent thinking.

### Citizenship

All Century Learners strive to make a positive impact in our community and the world through acts of service and by demonstrating compassion, empathy, respect, and integrity. We celebrate diversity, honor our environment, and participate in our democracy.

### Wellness

All Century Learners seek balance in a safe environment by attending to physical, emotional, and intellectual needs. We strive to be resilient and self-aware, and to make healthy, conscious choices in the best interest of ourselves and others.

## NOTICE

The Stafford County School Board does not unlawfully discriminate against any person on the basis of race, sex, age, color, religion, national origin, political affiliation, or disability. This policy covers all programs, services, policies, and procedures of Stafford County Public Schools, including all educational programs, admission to such programs, activities, and employment. Inquiries regarding non-discrimination should be directed to the Title IX Coordinator/Executive Director of Human Resources, Stafford County Public Schools, 31 Stafford Avenue, Stafford, VA 22554. Phone: (540) 658-6560 Fax: (540) 658-5970. Reasonable accommodation upon request.

## ACKNOWLEDGEMENTS

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**Elaina N. Parrish, Ed.D.**  
*Supervisor of Assessment, Accountability and Program Evaluation*

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# STAFFORD COUNTY PUBLIC SCHOOLS

2019-2020

## HIGH SCHOOL PROGRAM OF STUDIES

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## TO THE STUDENT

This booklet has been assembled to inform you of which courses are required and in what sequence they must be taken. Furthermore, the booklet will also describe electives that are available. Take the booklet home or access it online and discuss the courses with your parent/guardian(s). Give very serious consideration to your choices. Many of your college and career pathways depend upon your selection of high school courses. Consider your own abilities, interests, and goals. Then, choose a program of studies that will help you reach those goals. You will be required to take Standards of Learning (SOL) tests in English, mathematics, science, and history. Additionally, you will be required to earn a Virginia board-approved career and technical education industry credential to graduate with a Standard Diploma and one virtual course or blended learning experience, which may be non-credit bearing. You are also required to complete emergency first aid, cardiopulmonary resuscitation, and the use of automated external defibrillator training.

## TO THE PARENT/GUARDIAN(S)

The Virginia Board of Education implemented rigorous instructional standards by refining and strengthening core skills, concepts, and knowledge in English, mathematics, science, and history. All courses reflect these standards. Please note that all students in grades 9-12 must take SOL tests in English, mathematics, science and history. Additionally, students are required to earn a Virginia board-approved career and technical education industry credential to graduate with a Standard Diploma, and successfully complete one virtual course, or blended learning experience, which may be non-credit bearing. Students are also required to complete emergency first aid, cardiopulmonary resuscitation, and the use of automated external defibrillator training. All students must meet the graduation requirements included in this catalog.

## REGISTRATION INFORMATION

During the winter and spring, counselors in each middle and high school will meet with students and/or parent/guardian(s) to help students select appropriate courses. Courses are selected using the online platforms of StudentVue or ParentVue. Certain courses are required, with many courses selected according to a student's interests. Generally, elective courses must have an enrollment of 15 in order to be offered; staffing limitations may also impact the ability for a course to be offered. Alternates for elective courses should be chosen, in case a schedule conflict or low enrollment forces cancellation of a course.

## COURSE CHANGES

Course sections are filled and balanced using student course selections made in the spring. While we ask that all students to select appropriate courses, we know that sometimes students must re-take a class. We will honor requests for a change, if an error on the schedule is identified, otherwise changes will be considered under the following conditions:

1. At request of parent, with administrator approval.
2. A student may only drop and add a course until the 5th scheduled class meeting, no student may add a course after the 5th class meeting.
3. After the 5th scheduled class meeting, a student may only drop a course if a suitable alternative placement is found.

Students should see their counselor to determine the potential impact on the grade-point average and diploma type should they drop a course. The following grade reporting policies will be followed when dropping a course:

1. If a student drops a course after the 5th scheduled class meeting and prior to the 10th scheduled class meeting, the course will not be recorded on the student's permanent record.
2. If a student drops a course after the 10th scheduled class meeting, and prior to the fifteenth scheduled class meeting, the course will be shown on the permanent record as a drop-pass or a drop-fail. This will not be computed into the grade-point average.
3. If a student drops a course after the fifteenth scheduled class meeting, a grade of "F" will be recorded for that course on the permanent record. This will be computed into the grade-point average.
4. Level changes (such as, from honors to regular) will be considered until five days past the first interim period. The principal may review and approve level changes beyond this deadline.
5. The drop/add date for DE courses will be determined by the sponsoring college. If a student drops after the drop date, the student is responsible for the tuition fee.

## CANCELLED COURSES

Certain courses may be cancelled due to:

- Low enrollment
- Staffing limitations
- Budget limitations

While every effort is made to provide educational opportunities that meet the needs of all students, on occasion, courses must be cancelled. Generally, a minimum of ten students must be enrolled in an Advanced Placement, Dual Enrollment, or an International Baccalaureate course for the course to be offered; however, a course may be cancelled and a suitable alternative will be found. Generally, other elective courses will be offered with a minimum enrollment of 15, unless state regulations require an enrollment of fewer than 15 students. Staffing limitations may also impact the ability of a course to be offered.

Juniors and seniors receive priority enrollment in order to complete graduation requirements. Freshmen and sophomores may not be afforded the opportunity to enroll in a course if all seats in all sections of the course are taken.



## GRADUATION REQUIREMENTS

The Regulations for Establishing Standards for Accrediting Public Schools in Virginia specifies the standards that all students must meet in order to earn a diploma. These standards can change from one year to another, and each student must meet the requirements that are in place the year he or she first entered ninth grade.

Students entering the ninth grade for the first time in the fall of 2011 and beyond will be required to satisfy graduation requirements for one of three diplomas: (1) a 22-credit Standard Diploma; (2) a 26-credit Advanced Studies Diploma; or (3) an Applied Studies Diploma. See *Standards of Learning Testing* section for required tests needed for graduation.

The Applied Studies Diploma is established for certain students who have a disability and who are not able to meet the credit requirements for a Standard Diploma. Student eligibility for this diploma is determined by the Individualized Education Plan (IEP) team, the student, and the parent/guardian(s). The Applied Studies Diploma is for students whose disabilities require a unique program of study.

### **What are a “standard unit of credit” and a “verified unit of credit”?**

A standard unit of credit is awarded for a course in which the student successfully completes 140 clock hours of instruction and the objectives of the course. A verified unit of credit is awarded for a course in which the student earns a standard unit of credit and achieves a passing score on a corresponding end-of-course SOL test or a substitute assessment approved by the Virginia Board of Education.

## SEQUENTIAL ELECTIVES REQUIREMENT

Students earning the Standard Diploma must successfully complete two sequential electives to satisfy graduation requirements. Courses used to satisfy this requirement may be in any discipline as long as the courses are not specifically required for graduation. Courses used to satisfy the one-credit requirement in the fine arts or career and technical education may also be used to partially satisfy this requirement. For example, if a student selects Art Foundation to satisfy the fine arts or career and technical education requirement, then Art Foundation and a second course in the art sequence may also be used to satisfy the sequential electives requirement. The second course could then also count toward the six other required elective credits. Courses to satisfy the sequential elective requirement do not have to be completed in consecutive years, and they may be semester or year-long courses. Please refer to the VDOE sequence requirements at <http://www.cteresource.org/apg/introduction> for more information.

**NOTE: This program of studies contains accurate graduation requirements as of the publish date. Graduation requirements for each diploma are available on the Virginia Department of Education website at:**  
**<http://www.doe.virginia.gov/instruction/graduation/index.shtml>**

## STANDARDS OF LEARNING (SOL) TESTING

The Virginia Board of Education requires students to earn a certain number of verified credits to graduate. A verified credit can be earned by passing an end-of-course SOL test or an approved substitute assessment. Students entering ninth grade prior to 2018 are required to earn 6 verified credits for a Standard Diploma and 9 verified credits for an Advanced Diploma. Students enrolling in 2018 and beyond will only have to earn 5 verified credits for either the Standard or Advanced Diplomas. Additionally, federal government guidelines require that all students be tested in high school at least once in reading, math, and science. As a state and federal requirement, there are no exemptions to taking SOL tests. Once a student has earned the required number of verified credits in a content area, they will NOT take additional SOL tests in that content area. Once a student earns a passing score, the student may not re-take the test to achieve a higher score. High school students have multiple opportunities to take SOL tests and earn the required verified credits needed for graduation.

**High School Standards of Learning Tests**  
**Graduating Classes Prior to 2022**

SOL tests are given upon completion of the courses listed in the following tables for Standard and Advanced Studies Diplomas:

<b>English 11</b>	All Diplomas	<b>History</b>	Standard	Advanced Studies
Reading, Literature/Research	Grade 11	World History to 1500 AD; World Geography	Grade 9*	Grade 9*
Writing	Grade 11	World History from 1500 AD; World Geography	Grade 10*	Grade 10*
		Virginia and US History	Grade 11	Grade 11

<b>Science</b>	All Diplomas	<b>Mathematics</b>	Standard	Advanced Studies
Earth Science	Grade 9	Algebra I; Algebra I Part II	Grade 9 or 10■	Grade 7, 8, or 9
Biology	Grade 9 or 10	Geometry; Geometry Part II	Grade 10 or 11■	Grade 8, 9, or 10
Chemistry	Grade 10 or 11	Algebra II	Grade 11	Grade 9, 10, or 11

\* Standard Diploma students are required to take World History to 1500/World Geography or World History from 1500/World Geography. Advanced Studies Diploma students will take both World History/Geography courses.

■ Students taking Algebra I Part I and Part II will take the Algebra I test upon completion of Algebra I Part II. Students taking Geometry Part I and Part II will take the Geometry test upon completion Geometry Part II.

**High School Standards of Learning Tests**  
**Graduating Class of 2022 and Beyond**

SOL tests are given upon completion of the courses listed in the following tables for Standard and Advanced Studies Diplomas:

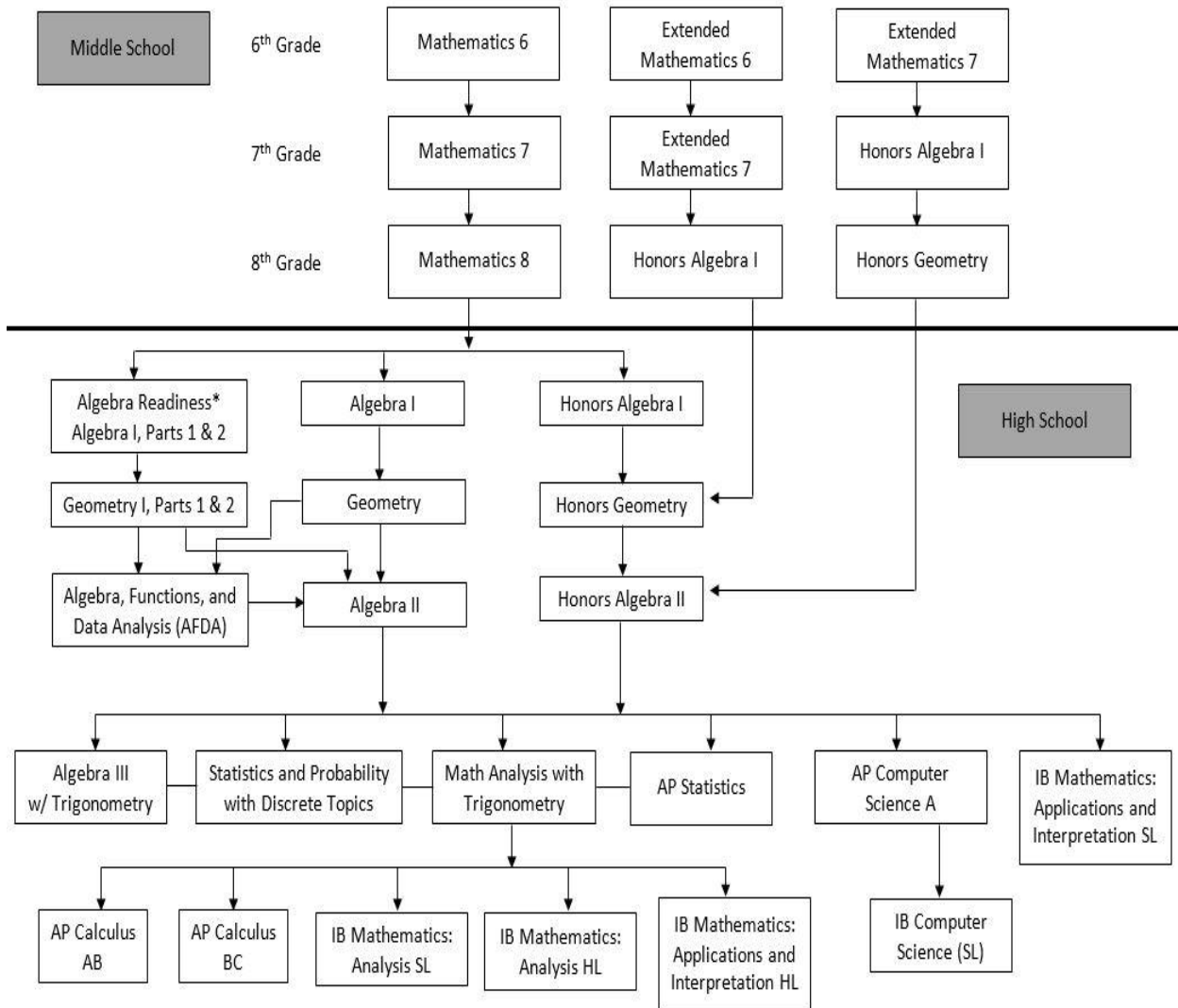
<b>English 11</b>	All Diplomas	<b>History</b>	All Diplomas	Must obtain required verified credit from one history/social science course
Reading, Literature/Research	Grade 11	World History to 1500 AD; World Geography	Grade 9 -OR-	
Writing*	Grade 11	World History from 1500 AD; World Geography	Grade 10 -OR-	
		Virginia and US History	Grade 11	

<b>Science</b>	All Diplomas	Must obtain required verified credit from one science course	<b>Mathematics</b>	All Diplomas	Must obtain required verified credit from one mathematics course
Earth Science	Grade 9 -OR-		Algebra I; Algebra I Part II	Grade 7, 8, 9 or 10■ -OR-	
Biology	Grade 9 or 10 -OR-		Geometry; Geometry Part II	Grade 8, 9, 10 or 11■ -OR-	
Chemistry	Grade 10 or 11		Algebra II	Grade 9, 10, 11 or 12	

\*Students may earn a verified credit in Writing through a writing performance assessment option.

■ Students taking Algebra I Part I and Part II will take the Algebra I test upon completion of Algebra I Part II. Students taking Geometry Part I and Part II will take the Geometry test upon completion Geometry Part II.

## SCPS Mathematics Course Pathways



\*Counts as an elective credit but not as a mathematics credit.

Additional sequences may be available for students with disabilities and section 504 plans.

## STANDARD DIPLOMA

### Students seeking a Standard Diploma must also:

- earn a Virginia board-approved career and technical education credential to graduate with a Standard Diploma;
- successfully complete a virtual learning course. This course can be fully online or a blended online learning experience. In SCPS, this requirement is included in Economics and Personal Finance curriculum in grades 10-12; and
- be trained in emergency first aid, cardiopulmonary resuscitation, and the use of automated external defibrillator, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation. In SCPS, this requirement is included in the Health and Physical Education curriculum in grades 9 and 10.

Course Area	Standard Credits: 9th Graders Beginning Fall of 2011 – Spring of 2018		Standard Credits: 9th Graders Beginning Fall of 2018 and Beyond	
	22 Credits	# of Verified	22 Credits	# of Verified
English	4	2	4	2
Mathematics <sup>1</sup>	3	1	3	1
Lab Science <sup>2, 6</sup> – Earth Science, Biology, one additional Science course	3	1	3	1
History <sup>3, 6</sup> – World History to 1500 A.D./World Geography or World History after 1500 A.D./World Geography, Virginia/United States History, and Virginia/United States Government	3	1	3	1
Health and Physical Education	2		2	
World Language, Fine and Performing Arts or Career & Technical Education <sup>7</sup>	2		2	
Economics and Personal Finance	1		1	
Electives <sup>4</sup>	4		4	
Student Selected Test <sup>5</sup>		1		
TOTAL	22	6	22	5

<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.

<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.

<sup>3</sup>Courses completed to satisfy this requirement shall include US and Virginia History, US 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>Students may utilize additional tests for earning verified credit in computer science, technology, career and technical education, economics or other areas as prescribed by the Board in 8 VAC 20-131-110.

<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 (1) the student selected verified credit and (2) either a science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the Board of Education as an additional test to verify student achievement.

<sup>7</sup>Pursuant to Section 22.1-253.13:4, *Code of Virginia*, credits earned for this requirement shall include one credit in fine or performing arts or career and technical education.

## ADVANCED STUDIES DIPLOMA

### Students seeking an Advanced Studies Diploma must also:

- successfully complete a virtual learning course. This course can be fully online or a blended online learning experience. In SCPS, this requirement is included in Economics and Personal Finance curriculum in grades 10-12; and
- be trained in emergency first aid, cardiopulmonary resuscitation, and the use of automated external defibrillator, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation. In SCPS, this requirement is included in the Health and Physical Education curriculum in grades 9 and 10.

Course Area	Advanced Studies Credits: 9th Graders Beginning Fall of 2011 – Spring of 2018		Advanced Studies Credits: 9th Graders Beginning Fall of 2018 and Beyond	
	26 Credits	# of Verified	26 Credits	# of Verified
English	4	2	4	2
Mathematics <sup>1</sup>	4	2	4	1
Lab Science <sup>2, 6</sup> – Four (4) courses from among three of these Lab Science areas: Earth Science, Biology, Chemistry, and Physics	4	2	4	1
History <sup>3, 6</sup> – World History to 1500 A.D./World Geography, World History after 1500 A.D./World Geography, Virginia/United States History, and Virginia/United States Government	4	2	4	1
Health and Physical Education	2		2	
World Languages <sup>4</sup> (3 years of one language or 2 years each of two languages, 2+2 option)	3 (or 4)		3 (or 4)	
Economics and Personal Finance	1		1	
Electives (depending on language option)	3 (or 2)		3 (or 2)	
Fine Arts or Career and Technical Education <sup>7</sup>	1		1	
Student Selected Test <sup>5</sup>		1		
<b>TOTAL</b>	<b>26</b>	<b>9</b>	<b>26</b>	<b>5</b>

<sup>1</sup>Courses completed to satisfy this requirement shall include at least three 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.

<sup>2</sup>Courses completed to satisfy this requirement shall include course selections from at least three 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.

<sup>3</sup>Courses completed to satisfy this requirement shall include US and Virginia History, US 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>Students may utilize additional tests for earning verified credit in computer science, technology, career and technical education, economics or other areas as prescribed by the Board in 8 VAC 20-131-110.

<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 (1) the student selected verified credit and (2) either a science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the Board of Education as an additional test to verify student achievement.

<sup>7</sup>Pursuant to Section 22.1-253.13:4, *Code of Virginia*, credits earned for this requirement shall include one credit in fine or performing arts or career and technical education.

## APPLIED STUDIES DIPLOMA

This diploma is intended for students with an Individualized Education Plan (IEP) who require a unique educational program and do not meet the requirements of other diplomas. The student's IEP team and parent/guardian(s) determine eligibility and participation in this diploma program. For a student to earn an Applied Studies Diploma, the student must complete the requirements of his or her IEP.

The Virginia Standards of Accreditation (SOA) are currently under revision by the Virginia Board of Education. The graduation requirements listed herein represent the current SOA. Changes in the SOA may result in graduation requirements different than those listed above, which may require changes in courses for some students. Updates to the course catalog will be posted on the SCPS website as more information becomes available. Graduation requirements and additional VDOE information is available at: <http://www.doe.virginia.gov/instruction/graduation/index.shtml>

## AWARDS FOR EXEMPLARY PERFORMANCE

Students who demonstrate outstanding achievement may be eligible for one of the following Virginia Board of Education's (VBOE) awards:

1. The VBOE Governor's Seal will be 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 earn the student at least nine transferable college credits in Advanced Placement (AP), Dual Enrollment (DE), or International Baccalaureate (IB) courses.
2. The VBOE seal will be awarded to students who complete the requirements for a Standard Diploma or Advanced Studies Diploma with an average grade of "A."
3. The VBOE Career and Technical Education (CTE) Seal will be awarded to students who earn a Standard Diploma, Advanced Studies Diploma or complete a prescribed sequence of courses in a CTE concentration or specialization that they choose and maintain a "B" or better average in those courses; or (i) pass an examination or an occupational competency assessment in a CTE concentration or specialization that confers certification or occupational competency credential from a recognized industry, trade or professional association or (ii) acquire a professional license in that CTE field from the Commonwealth of Virginia. The VBOE shall approve all professional licenses and examinations used to satisfy these requirements.
4. The VBOE Seal of Advanced Mathematics and Technology will be awarded to students who earn either a Standard Diploma or an Advanced Studies Diploma and (i) satisfy all VBOE 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 (ii) either (a) pass an examination in a CTE field that confers certification from a recognized industry, trade, or professional association; (b) acquire a professional license in a CTE field from the Commonwealth of Virginia; or (c) pass an examination approved by the board that confers college-level credit in a technology or computer science area. The VBOE shall approve all professional licenses and examinations used to satisfy these requirements.
5. The VBOE Seal for Excellence in Science and the Environment is awarded to students who enter the ninth grade for the first time in the 2018-2019 year and thereafter who earn either a Standard or Advanced Studies Diploma and (i) complete at least three different first-level board-approved laboratory science courses and at least one rigorous advanced-level or postsecondary-level laboratory science course, each with a grade of "B" or higher; (ii) complete laboratory or field-science research and present that research in a formal, juried setting; and (iii) complete at least 50 hours of voluntary participation in community service or extracurricular activities that involve the application of science such as environmental monitoring, protection, management, or restoration.
6. Governor's School Diploma Seal is for students who successfully complete the Commonwealth Governor's School (CGS) program.
7. Governor's STEM Academies Seal is awarded to students who successfully complete Stafford Academy for Technology (STAT).
8. IB Seals are awarded to students who successfully complete course requirements for the International Baccalaureate Programme.
9. APPX Seals are awarded to students who successfully complete course requirements for the Advanced Placement Program of Excellence.
10. The VBOE Seal of Biliteracy certifies attainment of a high level of proficiency by a graduating high school student in one or more languages in addition to English. This seal is awarded to students who earn either a Virginia board-approved diploma and (i) pass all required End-of-Course Assessments in English reading and writing at the proficient or higher level; and (ii) are proficient at the intermediate mid-level or higher in one or more languages other than English, as demonstrated through an assessment from a list to be approved by the Superintendent of Public Instruction. For purposes of this article, "foreign language" means a language other than English and includes American Sign Language.
11. To qualify for the Virginia Department of Education (VDOE) Early College Scholars program, a student must (i) have a "B" average or better; (ii) pursue an Advanced Studies Diploma; (iii) and take and complete college-level coursework (i.e., AP, DE, or IB) that will earn at least 15 transferable college credits. The program is supported by Virtual Virginia and the Commonwealth College Course Collaborative. Students receive a certificate upon completion of the Early College Scholar Program at graduation. The VDOE pays the cost of Virtual AP tuition and test fees for students who sign an Early College Scholars Agreement. Textbooks are provided by Stafford County Public Schools. Students may access additional information at: [http://www.doe.virginia.gov/instruction/graduation/early\\_college\\_scholars/index.shtml](http://www.doe.virginia.gov/instruction/graduation/early_college_scholars/index.shtml)

## PRIOR COURSEWORK

### COURSES/CREDIT EARNED PRIOR TO 9TH GRADE

When students complete credit-bearing high school subjects through an accredited institution before entering ninth grade, credit(s) will be counted toward meeting the units required for graduation. Students are encouraged to take advantage of this option and may earn credit for Algebra I, Geometry, world language or other high school courses as appropriate to their needs. It is possible to enter high school with one or more units of credit toward graduation requirements. If applicable, the student must take the Standards of Learning test for the credit-bearing course.

### DELETING COURSES TAKEN PRIOR TO 9TH GRADE FROM THE ACADEMIC TRANSCRIPT

Students have the opportunity to pursue credit-bearing courses prior to high school. Stafford County Public Schools makes available selected mathematics, world language, and business courses. Occasionally, students may not demonstrate a desired degree of success in advanced courses taken prior to high school. Parents may request, in writing, no more than thirty (30) days following the posting of final year-end grades, that a credit-bearing course taken before entering high school be removed from their child's academic high school transcript.

Students for whom a credit-bearing course is deleted must repeat the course in its entirety if the course is a requirement for graduation. If an end-of-course SOL test is applicable, the student will not be required to retake the end-of-course test if a passing score was achieved. Please consult your child's counselor for additional information.

**This provision does not apply to courses taken while enrolled in grades 9-12.**

### TRANSCRIBING GRADES FOR TRANSFER STUDENTS

Stafford County Public Schools recognizes that different school districts and states utilize various grading scales. As students transfer into the division, official transcripts are requested from the sending school. Grades are transcribed for incoming students based on the letter grade earned at the previous school. This letter grade is used to calculate the grade point average based on the SCPS quality point scale. It should be noted that SCPS does not weight all courses. Transfer students will receive weighted credit for only those Advanced Placement, Dual Enrollment, and/or International Baccalaureate courses previously taken for which an equivalent weighted course is offered in our schools.



# GRADING PRACTICES

## GRADING SCALE AND GRADE POINT AVERAGE

Stafford County Public Schools (SCPS) uses a ten-point grading scale.

SCPS 10-POINT GRADING SCALE			
	Range	Quality Points	Weighted Quality Points
A+	98-100	4.5	5.5
A	93-97	4.25	5.25
A-	90-92	4.0	5.0
B+	87-89	3.5	4.5
B	83-86	3.25	4.25
B-	80-82	3.0	4.0
C+	77-79	2.5	3.5
C	73-76	2.25	3.25
C-	70-72	2.0	3.0
D+	67-69	1.5	2.5
D	63-66	1.25	2.25
D-	60-62	1.0	2.0
F	0-59	0	0

A student's Grade Point Average (GPA) is calculated by adding up the number of quality points the student earned and dividing it by the number of courses the student took. For example, a student who earned 2 As, 3 Bs, 2 Cs, and a D+ would earn 24.25 quality points. This score would be divided by the 8 courses the student took and therefore he/she would earn a 3.03125 GPA ( $24.25/8 = 3.03125$ ).

## WEIGHTED GRADES (#)

Students electing to take Advanced Placement (AP), college Dual Enrollment (DE)\*, or International Baccalaureate (IB) courses receive weighted credit for successfully completing these courses. Weighted grades will be designated by a (#) and do not apply to honors-level courses. Please note the following:

- In AP, DE, or IB courses students earn an additional Quality Point in their GPA, (i.e. a grade "A+" is awarded 5.5 grade quality points).
- All other courses, including honors-level courses, are awarded 4.5 grade quality points for an "A+".
- Students who wish to concurrently enroll in a college or university and receive high school credit for the course will receive a weighted grade for only those courses which are equivalent to those weighted courses listed in this catalog. Prior approval by the principal is required for any concurrent enrollment in a college or university. Certain student eligibility requirements apply.

**\* NOTE: Any DE course that earns less than six (6) college credits shall be assigned a .5 weight (not 1.0). This criterion would apply to CGS DE Chemistry, all CTE DE, and designated Project Lead The Way Engineering (PLTW) courses.**

Students transferring into SCPS will receive weighted grades for only those AP, DE, IB, PLTW courses previously taken for which an equivalent weighted course is offered in our schools. All students will have their grade point averages computed using the same weighted grade criteria.



## DEFINITION OF SUCCESSFUL COMPLETION OF COURSE

Students should select courses with the guidance of school counselors, teachers, and parents to align with their academic and career plans. Many of the courses offered are sequential and may recommend successful completion of related coursework. **Successful completion is generally defined as a grade of “C” (score of 70 or better); however, each student’s motivation, interests, and circumstances should be considered when selecting courses.** It is important to note that some courses and programs may have specific requirements or prerequisites. **Courses included in this document are offered at all schools unless otherwise noted.**

## AUDITING COURSES

Students may request to audit a course on a space available basis and at the sole discretion of the principal. Students who are approved to audit a course are expected to complete all assignments and assessments. Audited courses will not be computed into the student's grade point average. Commonwealth Governor's School (CGS) courses may not be audited unless approved by the CGS director and the principal. AP, DE, IB, and PLTW courses may not be audited.

## CREDIT RECOVERY COURSES

High school students who have failed an academic core course can take a SCPS adopted/approved online course that is self-paced and based on mastery of individual units. Participation requires prior approval by the principal. The purpose of credit recovery is to provide an opportunity for each student who failed a course to accelerate and to complete courses based on individual needs and to meet specific graduation requirements. Students must pass the online examination to earn credit and a final grade.

**Note:** Credit recovery courses do not meet the NCAA eligibility requirements. If you plan to participate in collegiate athletics, the NCAA Eligibility Center has not approved credit recovery courses to count towards the NCAA eligibility standards.

## SECONDARY SPECIALIZED PROGRAMS

Stafford County Public Schools provides opportunities for students to select challenging and interesting Secondary Specialized Programs based on their learning needs, styles, and preferences. These programs vary in nature and scope as they relate to the academic and career interests of the student and include the following: Advanced Placement Programs of Excellence, AP Capstone, Commonwealth Governor's School, Career and Technical Education, International Baccalaureate, Junior Reserve Officer Training Corps, and Stafford Academy for Technology. Secondary Specialized Programs may be application-based and vary based on location.

## NATIONALLY AND INTERNATIONALLY RECOGNIZED PROGRAMS

Stafford County Public Schools offers both Advanced Placement (AP) and International Baccalaureate (IB) courses and programs. These courses are recognized nationally and internationally, and may earn students college credit.

### ADVANCED PLACEMENT COURSES

Advanced Placement (AP) College Board approved courses provide students the opportunity to study at the college level. Each college or university, however, determines its own policies on acceptance of AP credits. AP courses require extensive reading, writing, and lab assignments. Some AP courses require prerequisite courses. Students who wish to take an AP course will need to discuss AP enrollment criteria with their high school counselors. Students enrolled in AP courses will receive weighted credit for successful completion of the course. Students are strongly encouraged to take all AP assessments as those students who earn equivalency scores on the AP exam may earn college credit. Students and/or parents are responsible for the AP exam fee by the appropriate date. Course offerings vary at each school depending on demand and teacher availability. More information on the AP courses is available at: <http://apcentral.collegeboard.com/apc/Controller.jpf>.

### ADVANCED PLACEMENT CAPSTONE PROGRAM



Research, Academic Rigor, Distinction

The AP Capstone Program is a two-year seminar and research course that explores real-world issues while focusing on developing critical analysis, communication, and investigative skills. AP Capstone, developed by College Board, is built on the foundation of two courses—AP Seminar and AP Research—and is designed to complement and enhance the in-depth, discipline-specific study provided through AP courses. It cultivates curious, independent, and collaborative scholars and prepares them to make logical, evidence-based decisions. This program is offered at CFHS, NSHS, and SHS.

#### **AP Capstone Diploma**

Students who earn scores of 3 or higher in both of the AP Capstone courses and on four additional AP Exams of their choosing will receive the AP Capstone Diploma.

#### **AP Seminar and Research Certificate**

Students who earn scores of 3 or higher in both of the AP Capstone courses but not on the four additional AP Exams will receive the AP Seminar and Research Certificate, signifying successful performance in those courses.

## THE INTERNATIONAL BACCALAUREATE DIPLOMA PROGRAMME



International Baccalaureate Diploma Programme (IB DP) is a rigorous pre-university course of study in the last two years of high school that focuses on developing the student as a whole by emphasizing ten Learner Profile traits: IB learners strive to be inquirers, knowledgeable, thinkers, communicators, principled, open-minded, caring, risk-takers, balanced, and reflective. This focus in turn develops and hones university-and career-readiness skills, including a strong work ethic, problem-solving and analytical thinking, collaboration, communication, and global awareness. When combined with the BPHS or MVHS “Pre-DP” preparatory courses in grades 9-10, the IB Diploma Programme is a coordinated four-year sequence of college preparatory study that meets the needs of highly motivated secondary school students.

Options for participation in IB courses include enrolling in one or more IB subject courses in an area of particular strength and interest OR enrolling in the full IB Diploma Programme. Students who choose to pursue individual IB subjects earn an IB Certificate for each IB course successfully completed. Students who choose to pursue the full IB Diploma Programme work toward earning the IB Diploma (while simultaneously earning the Advanced Studies Diploma). Both individual IB courses and the Full IB Diploma carry the potential for earning college credit. Students enrolled in individual IB courses must complete all assessments embedded throughout the year, and are strongly encouraged to take the end-of-year IB assessment in May. Students who do not take the end-of-year IB assessments will not earn an IB certificate nor have the course listed as IB on their transcript. Students enrolled in the IB Diploma Programme must complete all assessments including the assessment in May.

Interested students must complete an application before enrolling in the full IB Diploma Programme; any student wishing to transfer from one SCPS school zone to BPHS or MVHS for the IB Diploma Program must apply for the full IB Diploma Program (no transfers for individual IB courses). Those families must provide transportation to the transfer school.

Students pursuing the full IB Diploma complete one course from each of the six subject groups (see next page). In addition, full IB Diploma students will research and write an independent, argumentative 4000-word Extended Essay on a topic of personal interest and complete the metacognitive Theory of Knowledge (ToK) course as well as a Creativity, Activity, and Service (CAS) experiences portfolio designed to provide balance for the academic rigor of the program.

It is strongly recommended that students interested in the IB Diploma Programme visit the IB page at the BPHS or MVHS website for more information and attend an IB Information Night at one of the two schools.

### **For Further Information:**

**BPHS** – Julie Stemple-Hoover, IB Coordinator (540) 658-6080 or [stemplehooverje@staffordschools.net](mailto:stemplehooverje@staffordschools.net)

**MVHS** – Theresa Gaddy, IB Coordinator (540) 658-6840 or [gaddytm@staffordschools.net](mailto:gaddytm@staffordschools.net)

## Sequence of Pre DP/Honors and IB Courses for Grades 9-12

The following sequence of courses is a typical program of study for students interested in pursuing the IB Diploma or individual IB subject certificates. **Some scheduling modifications to the sequence below are available at both schools.** Individual student schedules should be developed with the help of parents, counselors, and the IB coordinator.

IB SUBJECT GROUP	9 <sup>th</sup> grade 'pre-DP'	10 <sup>th</sup> grade "pre-DP"	11 <sup>th</sup> grade IB	12 <sup>th</sup> grade IB
Group 1 Language A	Honors English 9	Honors English 10	IB Language and Literature	
Group 2 Language B	French Level 1 and/or 2	French Level 2 and/or 3	IB French	
	German Level 1 and/or 2	German Level 2 and/or 3	IB German	
	Spanish Level 1 and/or 2	Spanish Level 2 and/or 3	IB Spanish	
	Latin Level 1 and/or 2	Latin Level 2 and/or 3	IB Latin	
Group 3 Individuals and Societies	Honors World Hist. II (MV)	AP Comp. Gov.	IB History	
	Honors World Hist. II OR AP World History (BP)			
Group 4 Experimental Science	Honors Biology	Honors Chemistry	IB Biology, IB Chemistry, or IB Physics	
Group 5 Mathematics	Honors Geometry	Honors Algebra II	IB Math Studies *	
	Honors Algebra II	Math Analysis	IB Mathematics *	
	Honors Geometry	Honors Algebra II	IB Mathematics: Applications and Interpretation (SL) OR IB Mathematics: Analysis (SL)	
	Honors Algebra II	Math Analysis	IB Mathematics: Applications and Interpretation (HL) OR IB Mathematics: Analysis (HL)	
Group 6 IB Art or IB Elective	Art Foundation	Intermediate Art	IB Art (1-year) or IB Art (2-year)	
	Theatre Arts I	Theatre Arts II	IB Theatre Arts	
	Band, Chorus or Orchestra	Band, Chorus or Orchestra	IB Music	
	Elective	Elective	Free Elective or IB Elective (1-year)	Free Elective or IB Elective (1-year)
Other	Health/PE 9	Health/PE 10	Elective or Personal Finance	Elective or Personal Finance
Other	Elective	Elective or *Econ/Personal Finance	Theory of Knowledge	Theory of Knowledge

**9<sup>th</sup> and 10<sup>th</sup> grade "Pre-DP" Note:** Full IB Diploma students do not need to take Earth Science or World History I in ninth grade. Taking an IB Higher Level Science Course and the IB Higher Level History Course fulfills the VA requirements for graduation, respectively. However, if a student should decide not to pursue the full IB Diploma in the junior year, he or she *may* then be required to go back and take those courses.

**IB Diploma Program Notes:** Most IB courses are two-year courses that begin in the 11<sup>th</sup> grade and finish at the end of the 12<sup>th</sup> grade. Some IB courses (mostly electives) are year-long courses. IB electives include: Social and Cultural Anthropology, Computer Science, Psychology, Environmental Systems and Societies, Economics (\*can count as Econ with Personal Finance graduation requirement), and Business Management.

Course offerings at BPHS and MVHS may differ slightly. Call ahead or make an appointment to verify with a counselor or the IB Coordinator before making final course decisions.

Also note that it is assumed all students pursuing the full IB Diploma have taken at least one level of world language and Algebra I in eighth grade. If the student has not, he or she may still pursue the IB Diploma, but the course sequence may be somewhat different.

Students enrolled in individual IB courses must complete all assessments embedded throughout the year, and are strongly encouraged to take the end-of-year IB assessment in May. Students enrolled in the IB Diploma Programme must complete all assessments, including the assessment in May.

Some IB courses are offered at both the higher level (HL) and standard level (SL), both of which are college-level. HLs cover more material at a faster pace and greater depth. Full IB DP students must complete 3 and not more than 4 HL courses, and at least 2 SL courses for a total of 6 courses.

\*Only available to seniors who have successfully completed the first year of these two-year courses.

## **IB GROUP 1: LANGUAGE & LITERATURE**

The IB Language A courses in English are designed to support future academic study by developing high levels of language competence and communication skills as well as social, aesthetic and cultural literacy. Literature plays a central role in the courses, which aim to support lifelong learning through engaging students as actively as possible with the texts they study. The study of texts, both literary and non-literary, provides a focus for developing an understanding of how language works to create meanings in a culture, as well as in particular texts. All texts may be understood according to their form, content, purpose, and audience, and through the social, historical, cultural and workplace contexts that produce and value them. Responding to and producing texts promotes an understanding of how language sustains or challenges ways of thinking and being. All IB Language A courses in English at SCPS are two-year courses, with external examinations at the end of the second year. Students interested in earning an IB certificate in Language A must complete both classes in the two-year sequence and successfully complete all IB assessments. Students interested in earning the full IB Diploma must successfully complete one of the two-year IB Language A courses as a required component of the program.

## **IB GROUP 2: LANGUAGE ACQUISITION**

### **WORLD LANGUAGES**

These courses are designed for world language learners and focus primarily on the interaction between speakers and writers of the target language. The aim of each course is to prepare students to use the language appropriately in a range of situations and contexts for a variety of purposes. An awareness and appreciation of the cultures of the countries in which the target language is spoken is also an important component of these courses.

## **IB GROUP 3: INDIVIDUALS AND SOCIETIES**

Courses in Group 3 span the humanities and social sciences. Subject matter in Group 3 courses is contestable and requires students to tolerate some uncertainty. Studies of global perspectives and local situations foster an appreciation of change and continuity as well as of similarity and difference. Students evaluate major theories, research findings and concepts, and learn each subject's methodology.

## **IB GROUP 4: EXPERIMENTAL SCIENCES**

Experimental science subjects promote an understanding of the concepts, principles, and applications of the respective disciplines, together with an appreciation of the methodology of the experimental sciences. Students develop practical laboratory skills as well as the ability to work collaboratively through participating in an interdisciplinary group project. A common curriculum model offers a parallel structure at both higher and standard levels whereby all students study a core of material which is supplemented by various options. A study of local and international examples helps students develop an awareness of moral and ethical issues and promotes social responsibility.

## **IB GROUP 5: MATHEMATICS**

Each course in Group 5 aims to deepen a student's understanding of mathematics as a discipline and to promote confidence and facility in the use of mathematical language. Each math course is designed to cater to different abilities and levels of student interest. IB math courses are inclusive, meaning they encompass all typical high school math topics: algebra, geometry, trigonometry, math analysis, statistics, probability, and calculus.

## **IB GROUP 6: THE ARTS**

Each course in Group 6 places emphasis on practical production by the student and exploration of a range of creative work in a global context. Many approaches to learning are emphasized and embrace a wide variety of expressive forms from a range of cultural contexts. Connections are made between areas of study and human experiences through collaborative, as well as individual production and interpretation. Engagement in the arts promotes a sense of identity and makes a unique contribution to the development of each student. Study of the arts provides students with the opportunity to develop a critical and intensely personal view of themselves in relation to the world. These courses also promote knowledge of art from various cultures.

## STATE RECOGNIZED PROGRAMS

Students may apply to one of several specialized programs endorsed by the Commonwealth of Virginia. These include the Commonwealth Governor's School (CGS), Career and Technical Education (CTE) programs, and the Stafford Academy for Technology (STAT).

### COMMONWEALTH GOVERNOR'S SCHOOL (CGS)

The Commonwealth Governor's School (CGS) provides highly gifted and motivated students with a challenging, interdisciplinary program in English, science, mathematics, and social studies. Based on a school-within-a-school model, this half-day program utilizes interactive audiovisual technology, field experiences, and team teaching to create a regional community of learners. Depending on their attendance zones, students who are accepted, attend one of three sites: Colonial Forge High School, North Stafford High School, or Stafford High School.

Students attending CGS pursue a yearlong independent research (culminating) project of an interest, topic, question, or initiative they would like to develop. The student works with an advisor, project expert, and other CGS faculty members on research skills, statistical analysis, project development, and presentation skills.

Course work in the CGS curriculum includes honors, dual enrollment, and Advanced Placement opportunities. Students as early as 9th grade can take advantage of these advanced classes. Students are expected to sign the Early College Scholars Agreement and complete coursework and assessments that may earn at least 15 transferable college credits.

CGS believes in the need for students to learn outside of a traditional classroom setting. As a result, CGS students participate in five to six field experiences per year. These hands-on learning opportunities enable students to pursue real-life applications of curriculum content and work with experts in a variety of career fields.

Students wishing to apply should contact their school's counselors or gifted education resource teachers. The applications are due at the end of January; students are notified of their status in May.

For more information, please visit: [www.cgsva.org](http://www.cgsva.org) or see your gifted resource (FOCUS) teacher at your school.

	<u><b>Ninth Grade</b></u>	<u><b>Tenth Grade</b></u>	<u><b>Eleventh Grade</b></u>	<u><b>Twelfth Grade</b></u>
<u><b>English</b></u> <u><b>Pg. 29</b></u>	Honors English 9	Honors English 10	AP English Language & Composition #	AP English Literature & Composition #
<u><b>Mathematics</b></u> <u><b>Pg. 36</b></u>	Honors Algebra II <i>Must have successfully completed Algebra I</i>	Honors Geometry with Trigonometry or Honors Math Analysis with Discrete Topics	Honors Math Analysis with Discrete Topics or AP Calculus BC #	AP Calculus BC # or AP Statistics #
<u><b>Science</b></u> <u><b>Pg. 40</b></u>	AP Environmental Science* #	AP Biology #	Dual Enrollment Chemistry ◇ # <i>Virtual Virginia AP Chemistry may be assigned by CGS Director</i>	AP Physics 1 #
<u><b>Social Studies</b></u> <u><b>Pg. 32</b></u>	AP European History #	AP U.S. Government #	AP U.S. History #	AP Human Geography #

\*Students entering the CGS program must have completed Algebra I prior to the 9th grade.

# Weighted Classes.

◇ College credit is available through a dual-enrollment option. DE Chemistry earns a .5 weight.

Note: Additional fees may be required for courses included in the CGS program. All efforts will be made to keep fees to maximum of \$75 or less. In the case that required fees present a hardship to the student or family, it is encouraged that the need for assistance be communicated to the school counselor.

## CAREER AND TECHNICAL EDUCATION (CTE)

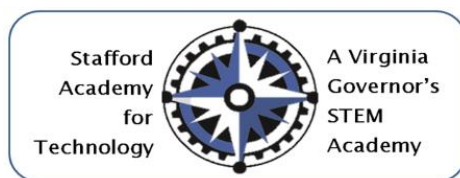
All students are encouraged to seek CTE courses that provide a foundation for their career plans and interests. Industry certification exams are available in many CTE courses. Students should contact their CTE teacher or counselors for more details. Attendance, self-discipline, and safety awareness are vital to the successful enrollment and completion of CTE courses. All classes will not be offered at all schools due to enrollment and availability.

While students pursuing an Advanced Studies Diploma may enhance their career plans by enrolling in CTE courses, students pursuing a Standard Diploma MUST complete two sequential electives or a CTE concentration and pass an industry certification. Sequential electives MUST be selected from the same discipline or subject area to qualify as sequential electives, i.e. both courses from Agriculture, or both from Business, or both from Marketing, or both from Health and Medical Sciences, etc. Please refer to the VDOE sequence requirements at <http://www.cteresource.org/apg/introduction>.

A number of cooperative education (co-op) programs offer an opportunity to work at a part-time job while receiving high school credit. Students in co-op programs must be enrolled in a business or marketing class and provide their own transportation to the workplace. One (1) credit is awarded to students for successful completion of the program. Grades are awarded on a pass/fail basis. See your counselor or CTE teacher for more information.

## CAREER AND TECHNICAL EDUCATION DUAL ENROLLMENT COURSES

*GERMANNA COMMUNITY COLLEGE						
HS Course #	High School Course Name	College Course #	College Course Name	College Credits	Assessment Test Required (see NOTE below)	Schools
9062DE	Virginia Teachers for Tomorrow I	SDV 110	Student Development (Orientation to Teaching)	3	Reading & Writing	TBD
*JAMES MADISON UNIVERSITY						
HS Course #	High School Course Name	College Course #	College Course Name	College Credits	Assessment Test Required (see NOTE below)	Schools
8423	Geospatial Technology I	GEOG 161	Geospatial Tools and Techniques	3	No Compass	TBD
8424	Geospatial Technology II	ISAT 181	Student Research Project	3	No Compass	TBD
<b>NOTE: Qualifying scores ENG 111 Qualified:</b> SAT Reading score of 500 or better, OR ACT Reading score of 21 or better, OR VPT ENG 111 Qualified. <b>Qualifying scores for Writing:</b> & SAT Writing score of 500 or better, OR ACT Writing score of 21 or better, OR VPT ENG 111 Qualified. <b>Qualifying scores for Math: SOL Algebra II 400+</b> * DE courses for CTE will only be offered if minimum enrollment is met, and DE course providers may vary.						



Stafford Academy for Technology (STAT): A Governor's STEM Academy is one of 23 state-approved Governor's STEM Academies in Virginia. STAT is a four-year program of study utilizing a hands-on, project-based model of instruction focused on the career pathways described below. The STAT instructional team includes teachers from the Career and Technical (specialty) area, as well as science, English, and mathematics teachers. STAT is open to rising 9th graders on an application basis and to 10th graders who have taken the first Career and Technical course in that sequence. Bus transportation from the base school is provided. Students are required to use bus service for all classes requiring transportation from a base school to a different high school.

STAT students learn in a "cohort" of like-minded students during 9th –12th grade in both academic and CTE courses. Course content is integrated to create a coherent learning experience. Courses are integrated with Project Lead the Way (PLTW) applications and taught at an honors level that prepares students for college-level courses in grades 11-12. At the end of 10th grade, students will be asked to reassess their academic plans -- they can stay in the STAT academic cohort class for 11th/12th grade OR they can opt out of their STAT academic cohort and take higher level courses at their base school. In order to avoid scheduling problems between the base school and program school, students must opt out of all STAT academic classes, not just one. Students that opt out of the academic cohort remain in the STAT CTE Cohort and travel to the program school for half of the day and then return to their base school. Students will undertake long-term projects and partner with mentors in the business community to build a stronger sense of purpose and a firm commitment to success in post-secondary education. A service-learning experience is infused into CTE coursework.

### **INFORMATION TECHNOLOGY (BPHS)**

The curriculum design is focused on a general computer science course of study. Brooke Point High School's program encompasses two blocks every day.

### **ENGINEERING AND TECHNOLOGY (NSHS)**

The curriculum design is focused on a general engineering and technology course of study utilizing the Project Lead the Way ([www.pltw.org](http://www.pltw.org)) framework. The North Stafford High School program encompasses two blocks every day. Five of the PLTW Engineering courses will be assigned a .5 weight -- course #'s 8439, 8440, 8441, 8430 and 8442. In order to receive a weighted credit, students must complete the course and the appropriate PLTW end-of-course exam.

### **BIOMEDICAL SCIENCES (NSHS)**

The curriculum design is focused on the exploration of a wide variety of health care and science career options utilizing the Project Lead the Way Biomedical Sciences ([www.pltw.org](http://www.pltw.org)) framework. North Stafford High School's program encompasses two blocks every day.



## Information Technology Program at Brooke Point High School

	9th Grade	10th Grade	11th Grade (Two Technical Courses)	12th Grade (Two Technical Courses)
Information Technology Course(s)	Cybersecurity 6302S	Advanced Programming 6641S	AP Computer Science 3185S	CLASS OF 2019-21: IB Computer Science IB3185S AND Cybersecurity 6302  CLASS OF 2022 AND BEYOND: IB Computer Science IB3185S AND Cybersecurity Software Operations (6304S)
			AP Computer Science Principles 3186S	
Mathematics 4 credits *	Algebra 1 3130S or Honors Algebra 1 3130SH or Geometry 3143S or Honors Geometry 3143SH or Algebra II 3135S or Honors Algebra II 3135SH	Geometry 3143S or Honors Geometry 3143SH or Algebra II 3135S or Honors Algebra II 3135SH *	Students follow next course in sequence at base school based on teacher recommendation: Algebra II, Honors Algebra II, Algebra III, Math Analysis, Calculus, AP Calculus**	
Science 4 credits	Honors Earth Science 4210SH	Honors Biology 4310SH	Honors Chemistry 4410 SH***	Honors Physics 4510 SH***
English 4 credits	Honors English 9 1130SH	Honors English 10 1140SH	Honors English 11 1150 SH***	DE English Composition 1177SD***

## Engineering Program at North Stafford High School

	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade (two technical electives)	12 <sup>th</sup> Grade (one technical elective, two credits)
Engineering and Technology course(s)	Introduction to Engineering Design 8439S#	Aerospace Engineering 8428S or Digital Electronics 8440S#	Principles of Engineering 8441S# <b>AND</b>	Engineering Design & Development (EDD) Capstone Course 8443S
			Civil Engineering & Architecture 8430S# or Computer Integrated Manufacturing 8442S#	
Mathematics 4 credits *	Algebra I 3130S or Honors Algebra I 3130SH Geometry 3143S or Honors Geometry 3143SH or Algebra II 3135S or Honors Algebra II 3135SH	Geometry 3143S or Honors Geometry 3143SH or Algebra II 3135S or Honors Algebra II 3135SH *	Students follow next course in sequence <u>at base school</u> based on teacher recommendation: Algebra II, Honors Algebra II, Algebra III, Math Analysis, Calculus, AP Calculus**	
Science 4 credits	Honors Earth Science 4210SH	Honors Biology 4310SH	Honors Chemistry 4410SH***	Honors Physics 4510SH <b>OR</b> AP Physics 4573S
English 4 credits	Honors English 9 1130SH	Honors English 10 1140SH	Honors English 11 1150SH ***	Dual Enrollment English Composition 1177SD ***

\*Students taking Algebra II in 9<sup>th</sup> grade will be offered schedule adjustments which allow them to remain on their advanced mathematics track.  
 \*\*Math is highly recommended at base school during 11<sup>th</sup> and 12<sup>th</sup> grade years. Students who intend to pursue STEM college majors and careers should choose four courses of algebra-based math (as shown) to fulfill four required credits of math. Statistics should be added as an elective. Social Studies, Physical Education, World Language and electives should be based on student preference and availability. Students are required to earn an Advanced Studies Diploma.

\*\*\* During the 11<sup>th</sup> and 12<sup>th</sup> grades, students will have the option to “opt up” from the STAT academic cohort to take any higher-level course, based on availability at base school. College-level credit may be available in some academic and CTE courses # - PLTW courses weighted .5

## Biomedical Sciences Program at North Stafford High School

	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade (one technical elective, two credits)
<b>Biomedical Sciences course(s)</b>	Principles of Biomedical Sciences 8379S	Human Body Systems 8380S	Medical Interventions 8381S	Biomedical Innovation (BI) Capstone Course 8382S
			<b>AND</b> Psychology 2900S or AP Psychology 2902S	
<b>Mathematics 4 credits</b>	Algebra 1 3130S or Honors Algebra 1 3130SH or Geometry 3143S or Honors Geometry 3143SH or Algebra II 3135S or Honors Algebra II 3135SH	Geometry 3143S Honors Geometry 3143SH or Algebra II 3135S or Honors Algebra II 3135SH *	Students follow next course in sequence <u>at base school</u> based on teacher recommendation: Algebra II, Honors Algebra II, Algebra III, Math Analysis, Calculus, AP Calculus**	
<b>Science 4 credits</b>	Honors Biology 4310SH	Anatomy & Physiology 4330S	Honors Chemistry 4410SH ***	Honors Physics 4510SH*** <b>OR</b> AP Chemistry 4470S
<b>English 4 credits</b>	Honors English 9 1130SH	Honors English 10 1140SH	Honors English 11 1150SH ***	Dual Enrollment English Composition 1177SD ***

\*Students taking Algebra II in 9th grade will be offered schedule adjustments which allow them to remain on their advanced mathematics track.

\*\*Math is highly recommended at base school during 11th and 12th grade years. Students who intend to pursue STEM college majors and careers should choose four courses of algebra-based math (as shown) to fulfill four required credits of math. Statistics should be added as an elective.

Social Studies, Physical Education, World Language and electives should be based on student preference and availability. Students are required to earn an Advanced Studies Diploma.

\*\*\* During the 11th and 12th grades, students will have the option to "opt up" from the STAT academic cohort to take any higher-level course, based on availability at base school. College-level credit may be available in some academic and CTE courses.

## LOCALLY RECOGNIZED PROGRAMS

Stafford County Public Schools developed an Advanced Placement Program of Excellence (APPX) which offers several advanced course concentration options in the global studies, STEM, and the arts and humanities.

### ADVANCED PLACEMENT PROGRAM OF EXCELLENCE – APPX SIGNATURE PROGRAM

Ninth-grade APPX students who enter the program are enrolled in a slate of honors courses within the core academic areas to prepare them for Advanced Placement courses. This academic approach provides additional preparation and support for students who pursue the AP curricula. Students will not necessarily have a prescribed required curriculum, but rather an individualized learning plan which capitalizes on each student's unique interests, abilities, and future goals.

#### **APPX - Specific Program-Overviews**

Advanced Placement Distinguished Scholars (APDS) is aligned with the nationwide Advanced Placement Program, which is a part of the College Board's partnership with high schools, colleges, and universities. The program provides students with instruction in a variety of college-level courses organized in a coherent sequence, taught by College Board trained instructors, to ensure that every student may achieve at an advanced level.

#### **APPX Program Specifics: AP International Diploma (APID) Program**

Students successfully completing 6 or more AP courses, their corresponding AP Test, and earning grades of 3 or higher on at least five AP Exams can be recognized as an Advanced Placement Diploma Scholar (APID). These criteria must be completed in the following content areas:

- **Two** AP Exams from two different languages selected from English and/or World Languages
- **One** AP Exam designated as offering a global perspective (World History, Human Geography, and/or United States Government and Politics: Comparative Government)
- **One** AP exam from the sciences or mathematics content areas
- **One** (or two) additional AP exam(s) from among any content areas except English and World Languages – or – both AP Seminar and AP Research (AP Capstone Program)

In order to earn the recognition of the APID, students must also indicate on at least **one AP Exam** answer sheet that the results should be sent to a university outside the United States. Successful completion of a service-learning portfolio/project (C.L.A.S.S.) is a required component of the program.

\*Successful completion of the AP Capstone Diploma Program is required to fulfill the C.L.A.S.S. requirement for the APPX distinction only. APID without the APPX distinction may be achieved with the AP Exam descriptions above per the College Board.

#### **APPX Program Specifics: AP Distinguished Scholar (APDS) Recognition–Specific Content Concentration**

Students who successfully complete six or more AP courses (minimum 3 or 4 required within the core subject areas and 2 AP Capstone Diploma courses – AP Seminar and AP Research) can be recognized in their senior year as a content-related Advanced Placement Distinguished Scholar. Successful completion of a service-learning portfolio/project is a required component of the program; this project is completed through the AP Capstone Diploma courses – AP Seminar in 11th grade and AP Research in 12th grade. Participants will be recognized at graduation with an AP Distinguished Scholar diploma seal and cord distinction.

### SCPS – Advanced Placement Program of Excellence (APPX)

<b>Courses for APPX Concentration Areas</b>	<b>James Farmer Global Studies</b>	<b>Sir Isaac Newton Math/Science (STEM)</b>	<b>Palmer Hayden Arts, Humanities, and Linguistic Scholar</b>	<b>Thomas Jefferson Renaissance Scholar</b>
<b>Required Courses Specific Content</b>	AP World History AP US History AP Government/AP Comparative Government -OR- AP US Government	AP Statistics AP Calculus (AB or BC) AP Physics -OR- [Physics and AP Science Choice]	AP English 11 AP English 12 AP Art History -OR- AP Music Theory -OR- AP World Language	AP Core Subject Area** (English) -OR- AP Core Subject Area** (Math) -OR- AP Core Subject Area** (Science) -OR- AP Core Subject Area** (Social Studies)
<b>Required for students</b>	[AP Seminar and AP Research]*	[AP Seminar and AP Research]*	[AP Seminar and AP Research]*	[AP Seminar and AP Research]*
<b>Select 2 (For students in program prior to 2016-2017)</b>	Two AP Core Subject Areas (English, Math, Science)	Two AP Core Subject Areas (English or Social Studies)	Two AP Core Subject Areas (Social Studies, Science, Math)	AP Course Selection of Interest  AP Course Selection of Interest
<b>Select at least 1</b>	AP English 11 AP English 12 AP Statistics AP Math Choice AP Science Choice AP Psychology [AP Macro Economics and AP Micro Economics] AP European History AP Human Geography	AP English 11 AP English 12 AP Social Studies Choice AP Biology AP Chemistry AP Environmental Science AP Computer Science	AP Math Choice AP Science Choice AP Social Studies Choice AP Music Theory AP Art 2-D AP Art 3-D AP Drawing AP World Language AP Psychology AP Art History AP Computer Science	AP Course Selection of Interest

\*Successful completion of the AP Capstone Diploma Program courses, AP Seminar and AP Research, is required to fulfill the C.L.A.S.S. requirement for the APPX distinction.

\*\*Thomas Jefferson Renaissance Scholars must select 3 different subject areas to fulfill the AP required courses specific content component.

**Please Note:** Students beginning the APPX program during the school year 2016-2017 will be required to complete both the AP Seminar and AP Research courses. Students currently enrolled in the APPX program may elect to complete the C.L.A.S.S. requirement through the traditional track of a 50 hour independent service-learning project.

## OTHER COURSE OPTIONS

### DUAL ENROLLMENT COURSES (DE)

DE courses provide high school juniors and seniors an opportunity to take college courses while completing their high school requirements. Courses are taught by high school instructors who have the qualifications to teach at the college level. DE courses are offered through multiple post-secondary providers; each provider may have unique requirements for courses and grading practices. Interested students should discuss DE options with their high school counselors.

Prospective students may be required to complete an application for admission, provide qualifying SAT scores, or take a placement test. They also will register through their high school in the spring. Tuition is the responsibility of the parents. In determining whether to drop a DE course, the student must follow drop/add procedures and timelines established by the college, not those of the school division.

### JUNIOR RESERVE OFFICER TRAINING CORPS (JROTC)

Stafford County Public Schools offers Junior Reserve Officer Training Corps (JROTC) programs for four branches of the United States Military. Students interested in participating in JROTC can only enroll in the branch offered at their high school.

#### AIR FORCE JROTC-NSHS

A JROTC curriculum consists of three components: Aerospace Science (AS), Leadership Education (LE) and Wellness. AS is the main component of the AFJROTC program and include Basic Aviation History and Advanced, Advanced Science of Flight, Exploring Space, Global Awareness, and/or Survival. AS acquaints students with the historical, scientific, and technical aspects of aerospace. LE is the AFJROTC curriculum component aimed at developing leadership skills; LE acquaints students with the practical application of life skills to include discipline, responsibility, leadership, followership, citizenship, customs and courtesies, cadet corps activities, study habits, time management, communication skills, and leadership and management studies. Basic military drill is incorporated for each level course. The Wellness component is keyed to the abilities of the individual students with the goal of meeting or exceeding the Presidential Physical Fitness Standards. The objectives of AFJROTC are to educate and train high school cadets in citizenship; promote community service; instill responsibility, character and self-discipline; and provide instruction in air and space fundamentals. The basic history course is taught every year, and the advanced courses are rotated annually.

#### ARMY JROTC-CFHS

The Army Junior Reserve Officers' Training Corps (JROTC) Program of Instruction focuses on the development of better citizens by building skills in leadership, citizenship, life success, geography, physical fitness/wellness, first aid, and national security issues in a structured, interactive environment. The Army JROTC program is a cooperative effort on the part of the Department of the Army, the Department of Education, and host institutions to provide secondary school students opportunities for total development.

The program produces successful students and productive adults while fostering in each school a more constructive and disciplined learning environment. Army JROTC is the centerpiece of the Department of Defense's commitment to America's Promise for Youth through its emphasis on service learning, community service and teen anti-drug efforts. Mastery of these concepts is accomplished through classroom and hands-on instruction, placement of cadets in key leadership positions, and participation in co-curricular Teams. Satisfactory completion of the program can lead to advanced placement credit in ROTC Programs (Collegiate level) or advanced rank in the US Armed Forces.

#### MARINE CORPS JROTC-MVHS

MCJROTC is a cadet run organization that teaches basic leadership, discipline, self-confidence, and encourages team work. Cadets are taught basic military knowledge, rules, regulations, and etiquette. Cadets are given opportunities to gain leadership roles and join MCJROTC teams. There is no obligation to join the military with taking MCJROTC courses, but cadets receive multiple benefits if they do decide to join any of the four services.

MCJROTC cadets also participate in a number of outside activities throughout the school year and during the summer months. These opportunities are designed to stimulate learning by hands-on experience and to reinforce classroom instruction. Some of these activities include: School and local activities such as drill teams, rifle teams, orienteering, unit athletics, parades, field days, and nonpolitical community activities. Military/leadership training, orientation visits to various naval and military bases, and cruises aboard U.S. naval vessels may be conducted during the summer months.

## **NAVY JROTC-BPHS and SHS**

NJROTC is a cadet run organization that teaches basic leadership, discipline, self-confidence, and encourages team work. Cadets are taught basic military knowledge, rules, regulations, and etiquette. Cadets are given opportunities to gain leadership roles and join JROTC teams. There is no obligation to join the military with taking JROTC courses, but cadets receive multiple benefits if they do decide to join any of the four services.

NJROTC cadets also participate in a number of outside activities throughout the school year and during the summer months. These opportunities are designed to stimulate learning by hands-on experience and to reinforce classroom instruction. Some of these activities include: School and local activities such as drill teams, rifle teams, orienteering, unit athletics, parades, field days, and nonpolitical community activities. Military/leadership training, orientation visits to various naval and military bases, and cruises aboard U.S. naval vessels may be conducted during the summer months.

## **ONLINE AND BLENDED LEARNING**

Recognizing that students sometimes run into difficulty earning required credits or accessing courses desired to fulfill their academic/career goals, Stafford County Public Schools utilizes technology and VDOE approved digital curriculum to offer high school courses online as needed. This includes online initial credit and credit recovery courses (see Credit Recovery section of the Program of Studies for additional information). In addition, online course offerings through Virtual Virginia may be available to students. Please see your high school counselor for more information on SCPS online and blended learning opportunities.

## **VIRTUAL VIRGINIA ADVANCED PLACEMENT COURSES**

A complete list of courses can be found at <http://www.virtualvirginia.org/>. Courses must be selected by August 1. Students may be required to purchase books and/or materials and are encouraged to sign the VDOE Early College Scholars program agreement. Those students who sign the agreement for Early College Scholar Program will have their AP exam fees waived. See your school counselor for the current list of courses available at your school. If a student drops after twenty-one (21) calendar days the student may be responsible for withdrawal fees.

## NCAA INITIAL ELIGIBILITY AND ACADEMIC REQUIREMENTS

**Division I Academic Eligibility** - To be eligible to compete in NCAA sports during your first year at a Division I school, you must graduate high school and meet ALL the following requirements:

- Complete 16 core courses:
  - Four years of English
  - Three years of math (Algebra 1 or higher)
  - Two years of natural/physical science (including one year of lab science if your high school offers it)
  - One additional year of English, math or natural/physical science
  - Two years of social science
  - Four additional years of English, math, natural/physical science, social science, foreign language, comparative religion or philosophy
- Complete 10 core courses, including seven in English, math or natural/physical science, before your seventh semester. Once you begin your seventh semester, you may not repeat or replace any of those 10 courses to improve your core-course GPA.
- Earn at least a 2.3 GPA in your core courses.
- Earn an SAT combined score or ACT sum score matching your core-course GPA on the Division I sliding scale, which balances your test score and core-course GPA. If you have a low test score, you need a higher core-course GPA to be eligible. If you have a low core-course GPA, you need a higher test score to be eligible.

**Division II Academic Eligibility** - To be eligible to compete in NCAA sports during your first year at a Division II school, you must meet academic requirements for your core courses, grade-point average (GPA) and test scores. The requirements are changing for students who enroll full-time at a Division II school after August 1, 2018.

If you enroll BEFORE August 1, 2018

You must graduate high school and meet **ALL** the following requirements:

- Complete 16 core courses:
  - Three years of English.
  - Two years of math (Algebra 1 or higher).
  - Two years of natural or physical science (including one year of lab science if your high school offers it).
  - Three additional years of English, math or natural or physical science
  - Two years of social science
  - Four additional years of English, math, natural or physical science, social science, foreign language, comparative religion or philosophy
- Earn at least a 2.0 GPA in your core courses.
- Earn a SAT combined score of 820 or an ACT sum score of 68. Remember, if you took the SAT on or after March 2016 you need to compare your score on the College Board concordance table. The 820 score is after the concordance table is applied.

### **AFTER August 1, 2018**

You must graduate high school and meet ALL the following requirements:

- Complete 16 core courses:
  - Three years of English.
  - Two years of math (Algebra 1 or higher).
  - Two years of natural or physical science (including one year of lab science if your high school offers it).
  - Three additional years of English, math or natural or physical science
  - Two years of social science
  - Four additional years of English, math, natural or physical science, social science, foreign language, comparative religion or philosophy
- Earn at least a 2.2 GPA in your core courses.
- Earn a SAT combined score or ACT sum score matching your core-course GPA on the Division II sliding scale, which balances your test score and core-course GPA. If you have a low test score, you need a higher core-course GPA to be eligible. If you have a low core-course GPA, you need a higher test score to be eligible.

### **Play Division III sports**

Division III schools provide an integrated environment focusing on academic success while offering a competitive athletics environment. Division III rules minimize potential conflicts between athletics and academics and focus on regional in-season and conference play. While Division III schools do not offer athletics scholarships, 75 percent of Division III student-athletes receive some form of merit or need-based financial aid. If you are planning to attend a Division III school, you do not need to register with the NCAA Eligibility Center. Division III schools set their own admissions standards.

### **OTHER IMPORTANT INFORMATION:**

Students enrolling at an NCAA Division I or II institution for the first time also need to complete the amateurism questionnaire through the Eligibility Center website. Students need to request final amateurism certification prior to enrollment.

For more information regarding the rules, please go to [www.ncaa.org](http://www.ncaa.org). Click on "Academics and Athletes," then "Eligibility and Recruiting" or visit the Eligibility Center website at [www.eligibilitycenter.org](http://www.eligibilitycenter.org).

Please call the NCAA Eligibility Center if you have questions: Toll-free number: 877-262-1492



## PREPARING YOUR HIGH SCHOOL PLAN

Below are sample four-year plans to assist with scheduling your courses. Boxes marked “Required Elective” indicate the minimum electives required for graduation. Students should consult their counselor when selecting these courses. Boxes marked “Student Choice” are those you may select for additional courses. The blank sample four-year plan is for you and your parents to prepare a customized plan to meet your educational and career objectives. The blank plan contains ten class spaces to provide for alternatives, if your first choice cannot be scheduled. Remember that you cannot sign up for your exact period-by-period schedule.

### \*\*SAMPLE STANDARD DIPLOMA FOUR-YEAR PLAN

CLASS	GRADE 9	GRADE 10	GRADE 11	GRADE 12
1	English 9	English 10	English 11	English 12
2	World History to 1500 AD/World Geography	Required Elective	VA/US History	VA/US Government
3	Earth Science	Biology	Ecology or Geology	Student Choice
4	Algebra I	Geometry	Algebra, Functions and Data Analysis	Student Choice
5	Health and PE 9	Health and PE 10	Sequential Elective*	Sequential Elective *
6	Fine Arts or Career and Technical Education	Required Elective	Economics & Personal Finance	Required Elective
7	Student Choice	Student Choice	Student Choice	Student Choice
8	Student Choice	Student Choice	Student Choice	Student Choice

\*Students are required to complete a sequence of elective courses which leads to completing a career and technical program or continued education.

\*\*Samples only—consult your counselor.

### \*\*SAMPLE ADVANCED STUDIES DIPLOMA FOUR-YEAR PLAN

CLASS	GRADE 9	GRADE 10	GRADE 11	GRADE 12
1	English 9	English 10	English 11	English 12
2	World History to 1500 AD/World Geography	World History from 1500 AD/World Geography	VA/US History	VA/US Government
3	Earth Science	Biology	Chemistry or Physics	Upper Level Science
4	Algebra I	Geometry	Algebra II	Algebra III/Statistics
5	Health and PE 9	Health and PE 10	Fine Arts or Career and Technical Education	Required Elective
6	World Language	World Language	World Language	Required Elective
7	Student Choice	Student Choice	Economics & Personal Finance	Student Choice
8	Student Choice	Student Choice	Student Choice	Student Choice

\*\*Samples only—consult your counselor.

## DEVELOP YOUR OWN FOUR-YEAR PLAN

(Select appropriate courses from the descriptions contained in this catalog.)

CLASS	GRADE 9	GRADE 10	GRADE 11	GRADE 12
1				
2				
3				
4				
5				
6				
7				
8				
9	Alternates			
10	Alternates			

# COURSE OFFERINGS

## ENGLISH

The English curriculum prepares individuals to read with comprehension, think critically, and communicate effectively. To provide for individual differences, instructional grouping is offered at each grade level. Students will take the End Of Course (EOC) Reading and EOC Writing assessments in selected courses. Weighted grades are designated by a # for AP, DE, and IB courses. All classes may not be offered at all schools, due to enrollment and availability.

### GENERAL COURSE SEQUENCE FOR ENGLISH

**ENGLISH 9, 10, 11, 12**

**1130-1160**  
**1 Credit**

A series of sequential courses designed to prepare students for continuing education and careers beyond high school. Instructional activities are based on the Virginia Standards of Learning and develop students' proficiency in oral and written communication, reading, research, and critical thinking and analysis skills. Students will explore a variety of text genres and make comparisons between diverse texts.

**HONORS ENGLISH 9, 10, 11**

**1130H-1150H**  
**1 Credit**

A series of sequential courses, designed by SCPS to prepare students for college and AP English, DE English Composition, or IB English courses. The instruction develops fundamental skills in inquiry (research), rhetorical analysis, argument, and synthesis above and beyond the scope of the Virginia Standards of Learning.

### AP/DE COURSE SEQUENCE

**AP ENGLISH: LANGUAGE and COMPOSITION**  
**Grade 11**

**1196**  
**1 Credit#**

This course is designed to enable students to write effectively for college courses across the curriculum as well as in their personal and professional lives. Students are provided with opportunities to write about a variety of subjects, with emphasis on expository analytical, and argumentative forms of writing. Additionally, students learn to read primary and secondary sources carefully, to synthesize material from texts in their own compositions, and to cite sources using conventions recommended by professional organizations. Although the course focus is primarily writing, students are also engaged in reading complex texts with understanding and examining the rhetorical strategies and stylistic choices made by writers. Students will be prepared to take the year-end AP English Language and Composition exam for possible college credit. Summer assignments may be provided.

**Schools offering course: CFHS, NSHS, SHS**

**AP ENGLISH: LITERATURE and COMPOSITION**  
**Grade 12**

**1195**  
**1 Credit**

AP English is a year-long course designed to be taken during a student's senior year, engender advanced study of literature, and prepare students for college. The course will include literary analysis and composition components. Students will practice interpreting an evaluating literature. Essays will be expository, analytical, and argumentative. Students will be prepared to take the year-end AP English Literature and Composition exam for possible

college credit. Summer assignments may be provided.

**Schools offering course: BPHS, CFHS, NSHS, SHS**

**AP ENGLISH: LITERATURE and COMPOSITION**  
**Grade 12**

**1195**  
**1 Credit#**

AP English is a year-long course designed to be taken during a student's senior year, engender advanced study of literature, and prepare students for college. The course will include literary analysis and composition components. Students will practice interpreting an evaluating literature. Essays will be expository, analytical, and argumentative. Students will be prepared to take the year-end AP English Literature and Composition exam for possible college credit. Summer assignments may be provided.

**Schools offering course: BPHS, CFHS, NSHS, SHS**

**DE HONORS ENGLISH COMPOSITION**  
**Grade 12**

**1177D**  
**1 Credit#**

DE English introduces students to critical thinking and the fundamentals of academic writing. 80% of the work in this class will involve writing assignments. 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 per semester. Second semester of the course requires students to locate, evaluate, integrate, and document sources and effectively edit for style and usage. The course will prepare students for all other expected college writing and for writing in the workplace by engaging the writing process, rhetoric, critical thinking, and research.

### CGS COURSE SEQUENCE

**ENGLISH 9: HONORS ENGLISH 9**  
**Grade 9**

**1130G**  
**1 Credit**

Honors English 9 introduces students to the critical analysis of literature through challenging reading, writing, and discussion. Students study the defining characteristics of the forms and levels of discourse, both imaginative and expository. Students apply their skills to timeless problems of communities, their environment, and their development. In addition, students study the fictional representation as well as the historical facts surrounding key events in European history.

**ENGLISH 10: HONORS ENGLISH 10**  
**Grade 10****1140G**  
**1 Credit**

Basic concepts learned in the 9th grade course are applied to literary works of increasing complexity. Special attention is given to the relationship between and among individuals, their society, and their environment. Written and oral work increasingly emphasizes persuasive forms appropriate to public discourses and to problem-solving in human communities.

**ENGLISH 11: AP ENGLISH LANGUAGE and COMPOSITION**  
**Grade 11**  
**1196G**  
**1 Credit#**

Students extend and refine their skills in critical reading and writing and will prepare for the 11th grade SOL. These skills are applied to examining the American cultural experience and its connections to the world. English and Social Studies content will thus reinforce each other. Reading and writing assignments will be challenging and designed to expand student sophistication in exploring aesthetic and cultural issues. The students will be prepared and are encouraged to take the AP exam for possible college credit.

**ENGLISH 12: AP ENGLISH LITERATURE and COMPOSITION**  
**Grade 12**  
**1195G**  
**1 Credit#**

In this course, students will apply their critical English skills to European and American literature, analyzing the development of cultural trends, including changing views of the protagonist and the surrounding social climate. Students will develop an understanding of major cultural developments of the nineteenth and twentieth centuries. In addition, students will examine the cultural landscape through both its fictional representation and through an examination of factual information presented in CGS Human Geography. The students will be prepared and are encouraged to take the AP exam for possible college credit

**IB COURSE SEQUENCE**

**IB LANGUAGE and LITERATURE (HL)** **IB1151 & IB1161**  
**Grades 11 & 12** **1 Credit per Year#**  
**Recommended Background: "B" or higher in previous Honors English courses for IB year one. "C" or higher in IB year one to go on to IB year two.**

In this 2-year course, students will be challenged to think critically about the role of language and interactions between text, context, audience, and purpose. They can expect to develop college-level writing skills. In addition, students will engage in analysis of literary works such as short stories, poetry, plays, non-fiction, and novels. In 11th grade, students focus on language in cultural context and language in mass media. In the 12th grade, students focus on analysis of poetry, memoir, and plays, as well as a critical and comparative study of the novel as a literary genre. Students who take this course should be prepared to think critically and take an active role in class discussions. Required IB assessments include oral activities, written tasks, an oral commentary, and course-end exams that call upon the student to analyze and compare previously unseen texts as well as literary works that have been read during the course. The students will be prepared and are encouraged to take the year-end IB examination for possible college credit  
**Schools offering course: BPHS, MVHS**

**ELECTIVE COURSES****ORAL COMMUNICATION** **1300**  
**Grades 10-12** **1 Credit**

Since communication is a lifelong process, oral communication focuses on necessary skills to help students communicate more effectively in their personal, social, and professional lives. To accomplish this goal, students will receive instruction in prepared speeches, impromptu speeches, personal communication, and oral interpretation.

**JOURNALISM I** **1200**  
**Grades 9-12** **1 Credit**

This elective course teaches the skills of managing, editing, and publishing a product in the journalistic writing style. Students write news, editorials, features, and sports articles and publish school and community news in the school magazine. This is a publication course and may involve participation outside of class.

**JOURNALISM II** **1210**  
**Grades 10-12** **1 Credit**  
**Successful completion of Journalism I and service on the school's publication staff**

This sequential elective course is specifically designed for students serving on the school's publication staff. This is a publication course and may involve participation outside of class.

**JOURNALISM III** **1211**  
**Grades 11-12** **1 Credit**  
**Successful completion of Journalism II and service on the school's publication staff**

This sequential elective course provides students with the opportunity to learn editorial leadership and professionalism. Students will function as productive members of the publication staff. This is a publication course and may involve participation outside of class.

**JOURNALISM IV** **1212**  
**Grade 12** **1 Credit**  
**Successful completion of Journalism III and service on the school's publication staff**

This sequential elective course will train students to serve as publication leaders who participate in peer tutoring, plan newspaper content, and help determine the news and editorial foci of the school newspaper. This is a publication course and may involve participation outside of class.

**PHOTOJOURNALISM I** **1215**  
**Grades 9-12** **1 Credit**

In this course, students study photography and layout of publications as well as the writing styles appropriate for those publications. Generally, this course is designed for members of the school's yearbook staff. This is a publication course and will involve participation outside of class.

**PHOTOJOURNALISM II** 1216  
**Grades 10-12** 1 Credit  
*Successful completion of Photojournalism I and service on the school's publication staff*

This sequential elective course is specifically designed for students serving in key roles on the school's yearbook staff. This is a publication course and will involve participation outside of class.

**PHOTOJOURNALISM III** 1217  
**Grades 11-12** 1 Credit  
*Successful completion of Photojournalism II and service on the school's publication staff*

This sequential elective course produces the school yearbook. Students prepare photographs, layout, and writing appropriate to the yearbook. Students also serve in leadership and supervisory roles to the yearbook staff. This is a publication course and will involve participation outside of class.

**PHOTOJOURNALISM IV** 1218  
**Grade 12** 1 Credit  
*Successful completion of Photojournalism III and service on the school's publication staff*

This sequential elective course produces the school yearbook. Students prepare photographs, layout, and writing appropriate to the yearbook. Students also serve in leadership and supervisory roles to the yearbook staff. This is a publication course and will involve participation outside of class.

**CREATIVE WRITING I** 1171  
**Grade 9-12** 1 Credit

This course develops a community of writers who share their work in the classroom and in the school literary magazine. Considerable emphasis is placed on developing an effective critique and on providing a climate that enhances enjoyment of creative expression. The course is a learn-by-doing course where students learn both to discipline and to free themselves through language. Students will experiment with literary genres and with various techniques and forms. Students will publish the school's literary magazine. This is a publication course and may involve participation outside of class.

**CREATIVE WRITING II** 1165  
**Grades 10-12** 1 Credit  
*Successful completion of Creative Writing I and service on the school's publication staff*

This sequential elective course is a writing intensive class designed for students in grades 11 and 12 who have completed an introductory course in creative writing and have demonstrated a proclivity toward writing. The course builds upon and refines the skills and concepts developed in the introductory course and will feature self-directed projects and student-led discussions with a strong emphasis on the professional writer's life and craft. Students are required to submit work for publication both within and outside the school. This is a publication production course which involves participation outside of class. Creative Writing II students will assume the staff leadership roles for the school literacy magazine.

**READING ACROSS THE CONTENT AREAS I-IV** 1181-1184  
**Grades 9-12** 1 Credit

Reading Across the Content Areas is designed for students requiring specific instruction in reading secondary content material; texts that often are compactly written and contain specialized vocabulary. Instruction will focus on student engagement, reading fluency, vocabulary, graphics (maps, charts, tables), and reading on the Internet. Strategies for questioning, visualizing, connecting, predicting, summarizing, and monitoring ones understanding will be covered. This course is recommended for students who did not pass the eighth-grade literacy SOL or are at risk in many of their subject-area courses in the upper grades.

**DEVELOPMENTAL READING I-IV** 9491-9494  
**Grades 9-12** 1 Credit

These classes are designed for students requiring differentiated instruction in reading, and may qualify as 1 elective credit per course, up to 4 credits. This program provides an academically based opportunity for students to achieve a degree of mastery in phonemic awareness, phonics, fluency, vocabulary, and comprehension. Teachers support students' reading through continued assessment, the provision of instructional-level materials, planned interventions that reflect the student's Individualized Education Program, and the developmental nature of reading. Enrollment is based on based on the recommendation of the IEP team.

**ENGLISH REVIEW** 1515-1516  
**Grades 11-12** 1 Elective Credit

This course is designed for students who need reading and writing remediation. Students learn and practice reading comprehension and writing strategies in a small group setting. An opportunity to retake the End-of-Course English assessments will be offered. Enrollment is determined based on prior English coursework or SOL scores.



## HISTORY AND SOCIAL SCIENCES

The Standard Diploma requires three courses in history. Standard Diploma students must take either World History I or II plus Virginia and United States History, and Virginia and United States Government. The Advanced Studies Diploma requires that students complete four courses in history. Students may substitute Advanced Placement courses for selected courses, except for elective AP courses. Weighted grades are designated by a # for AP, DE, and IB courses. All classes may not be offered at all schools due to enrollment and availability.

### GENERAL COURSE SEQUENCE

**WORLD HISTORY AND GEOGRAPHY I** **2215**  
**Grade 9** **1 Credit**

This required course explores the historical development of people, places, and patterns of life from ancient times to 1500 CE (AD). World History and Geography I or II is required for the Standard Diploma. Students will take the SOL test.

**HONORS WORLD HISTORY AND GEOGRAPHY I** **2215H**  
**Grade 9** **1 Credit**

This advanced course explores the historical development of people, places, and patterns of life from ancient times to 1500 CE (AD) in preparation for, AP, and/or IB courses. Students are expected to be independent learners with good written and oral communication skills. The instruction provides additional expectations requiring students to conduct independent research. Students will take the SOL test.

**WORLD HISTORY AND GEOGRAPHY II** **2216**  
**Grade 10** **1 Credit**

This in-depth course explores the historical development of people, places, and patterns of life from 1500 CE (AD) to the present. Students may take the SOL test.

**HONORS WORLD HISTORY AND GEOGRAPHY II** **2216H**  
**Grade 10** **1 Credit**

This advanced course explores the historical development of people, places, and patterns of life from 1500 CE (AD) to the present in preparation for, AP, and/or IB courses. Students are expected to be independent learners with good written and oral communication skills. The instruction provides additional expectations requiring students to conduct independent research. Students may take the SOL test.

**Schools offering course: BPHS, MVHS, NSHS, SHS**

**VIRGINIA AND UNITED STATES HISTORY** **2360**  
**Grade 11** **1 Credit**

This required course will explore the political, economic, and cultural growth of the Virginia and the United States. Skills in historical analysis, perspective, interpretation, and historical writing will be emphasized. Students may take the SOL test.

**VIRGINIA AND UNITED STATES GOVERNMENT** **2440**  
**Grade 12** **1 Credit**

This required, course will explore structure and function of the American Government at the national and state levels. Students will also study the government of Stafford County and the student's role as a citizen.

### AP COURSE SEQUENCE

**Note: AP social studies courses require students to use solid reading, writing, and time-management skills. Students enrolling in AP social studies courses should have successfully completed prior English and social studies coursework.**

**The students will be prepared and are encouraged to take the AP exam for possible college credit**

**AP WORLD HISTORY** **2380**  
**Grade 10** **1 Credit#**

This course may be substituted for World History II. Students will explore the historical development of people, places, and patterns of life from 1250 CE (AD) to the present. There will be a special emphasis on thinking historically, historical perspectives and using primary source documents to analyze and write about significant events.

**Schools offering course: BPHS, CFHS, NSHS, SHS**

**AP UNITED STATES HISTORY** **2319**  
**Grades 11-12** **1 Credit#**

This course may be substituted for Virginia and U.S. History. It will provide the knowledge and analytical skills necessary to deal with the achievements, issues and problems of American history emphasizing in-depth analysis of major political, social, cultural, and economic developments.

**AP UNITED STATES GOVERNMENT AND POLITICS/AP COMPARATIVE GOVERNMENT AND POLITICS** **2450**  
**Grade 12** **1 Credit#**

This course may be substituted for U.S. and Virginia Government. It will provide an intense study of the structures and functions of American government and an examination of other governmental forms in the world.

**AP UNITED STATES GOVERNMENT/POLITICS** **2445**  
**Grade 12** **1 Credit#**

This course may be substituted for U.S. and Virginia Government. It will provide an intense study of the structures and functions of the U. S. government and political system.

**Schools offering course: BPHS, CFHS, NSHS, SHS**

**AP ELECTIVES**

**Note:** AP social studies courses require students to use solid reading, writing, and time-management skills. Students enrolling in AP social studies courses should have successfully completed prior English and social studies coursework.

**The students will be prepared and are encouraged to take the AP exam for possible college credit**

**AP HUMAN GEOGRAPHY** 2212  
Grades 9-12 1 Credit#

This course provides students with the opportunity to identify and analyze contemporary concerns and problems from local, national, and global perspectives. Using geographical tools and skills, students consider issues pertaining to population distribution and composition, cultural patterns and processes, political organization, land use, industrialization and economic development, and urbanization.

**Schools offering course:** BPHS, CFHS, NSHS, SHS

**AP PSYCHOLOGY** 2902  
Grades 11-12 1 Credit#

AP Psychology provides an overview of current psychological theory and practice. Students will explore the systematic and scientific study of the behavior and mental processes of humans and other animals. In accordance with the driving principals of current psychological practice, this course will emphasize scientific method and critical thinking skills.

**Schools offering course:** CFHS, NSHS, SHS

**AP MICROECONOMICS** 2802  
Grades 11-12 1 Credit#

AP Microeconomics studies the behavior of individuals and businesses as they exchange goods and services in the marketplace. Microeconomics studies the economic way of thinking, understanding the nature and function of markets, the role of scarcity and competition, the influence of factors such as interest rates on business decisions, and the role of government in promoting a healthy economy. AP Microeconomics prepares students for the AP exam and for further study in business, history, and political science.

**Note:** BOTH AP Microeconomics and AP Macroeconomics must be successfully completed in order to satisfy the Economics and Personal Finance graduation requirement. This course must be completed prior to enrollment in AP Macroeconomics. **Schools offering course:** CFHS

**AP MACROECONOMICS** 2803  
Grades 11-12 1 Credit#  
**Successful completion of AP Microeconomics**

AP Macroeconomics is designed to give students a thorough understanding of the principles of economics that apply to an economic system as a whole. This course places particular emphasis on the study of national income and price level determination, and also familiarizes students with economic performance measures, the financial sector, stabilization policies, economic growth and international economics.

**Note:** BOTH AP Microeconomics and AP Macroeconomics must be successfully completed in order to satisfy the

**Economics and Personal Finance graduation requirement.**  
**Schools offering course:** CFHS

**AP EUROPEAN HISTORY** 2399  
Grades 10-12 1 Credit#

AP European History is a world history and geography survey course designed to emphasize higher cognitive and critical thinking skills. Students should have completed World History from 1500 AD to present or if enrolled concurrently with AP World History will be prepared for the SOL World History from 1500 AD to the Present test.

**Schools offering course:** CFHS, MVHS, NSHS, SHS

**CGS COURSE SEQUENCE****SOCIAL STUDIES 9: AP EUROPEAN HISTORY** 2399G  
Grade 9 1 Credit#

AP European History is a world history and geography survey course designed to emphasize higher cognitive and critical thinking skills. Problem-solving strategies are utilized to teach basic social science skills such as map reading, research, comparison-making, and assessing cause and effect. Students will be prepared for the Standards of Learning World History from 1500 AD to the Present and World Geography test. Students will have met the requirements for World History and will be eligible to take the Advanced Placement European History exam.

**SOCIAL STUDIES 10: AP U.S. GOVERNMENT** 2445G  
Grade 10 1 Credit#

This government course is designed to enable students to identify and analyze political theory while examining the institutions, political processes, and practices of local, state, and national governments. Students identify topics of community, national, and international concern, gather data and research possible solutions. Students will have met the requirements for U.S. Government and will be eligible to take the AP U.S. Government exam.

**SOCIAL STUDIES 11: AP U.S. HISTORY** 2319G  
Grades 11-12 1 Credit#

This U.S. History course is designed to present U.S. History within a global perspective. Emphasis will be on critical reading and writing. Students will interpret and utilize factual data to construct historical arguments and develop a deeper understanding of contemporary American society. Students will take the SOL U.S. History test and will be eligible to take the AP U.S. History exam.

**SOCIAL STUDIES 12: AP HUMAN GEOGRAPHY** 2212G  
Grade 12 1 Credit#

This course provides students with the opportunity to identify and analyze contemporary concerns and problems from local, national, and global perspectives. Using geographical tools and skills, students consider issues pertaining to population distribution and composition, cultural patterns and processes, political organization, land use, industrialization and economic development, and urbanization. Students will take the World Geography SOL test and will be eligible to take the Advanced Placement Human Geography exam.

**IB COURSE SEQUENCE**

The students will be prepared and are encouraged to take the year-end IB examination for possible college credit.

**Schools offering these courses: BPHS and MVHS**

**IB ECONOMICS (SL) with PERSONAL FINANCE** IB2806  
**Grades 11 or 12** **1 Credit#**

This 1-year course covers microeconomics, macroeconomics, international economics and development economics in addition to personal finance. The ethical dimensions involved in the application of economic theories and practices permeate the course, and economics are investigated with a global perspective. In addition to the IB Economics SL curriculum, students complete Personal Finance curriculum through an online platform. This course fulfills the Economics & Personal Finance requirement for graduation.

**IB THEORY of KNOWLEDGE** IB1197 & IB1198  
**Grades 11 & 12** **1 Credit per Year#**  
**Recommended Background:** "C" or higher in IB year one to go on to IB year two.

IB Theory of Knowledge (ToK) is a two-year course required for IB Diploma. It includes embedded instruction and guided practice regarding the other two elements of the IB Core—the Extended Essay and Creativity, Action, and Service. The ToK course is designed to foster in students a habit of mind that reflects on human ways and limits of knowing as well as on the human ability to communicate these ways of knowing. Students will explore fundamental questions of epistemology by reflecting upon and questioning the basis of knowledge and experience, examining cultural and ideological bias, and by formulating rational arguments and value judgments of their own. Academic disciplines examined include language, history, logic, science, mathematics, ethics and aesthetics. The course includes an externally assessed paper and internally assessed oral presentation.

**IB HISTORY (HL)** IB2360 & IB2361  
**Grades 11 & 12** **1 Credit per Year#**  
**Recommended Background:** Successful completion of Honors World History with a "B" or higher and preferably AP US Government with a "C" or higher. "C" or higher in IB year one to go on to IB year two.

This is a two-year course of study. During the first year, students will study "History of the Americas," a survey of U.S., Canadian, and Latin American history. The first year focuses on the American region's historical experience, as well as political, economic, and social systems. Students will demonstrate historical analysis by discussion, presentation, and written work including an internally assessed research paper. During the second year, students study "Twentieth Century Topics" of World History. The second year continues to stress political, economic, and social systems as well as requiring students to further develop their skills of interpretation and analysis through historiography. The course culminates in a series of external assessments that include document-based questions, short essay response and an internally assessed research paper which provide the possibility of college credit.

**IB SOCIAL AND CULTURAL ANTHROPOLOGY (SL)** IB2847  
**Grade 11 or 12** **1 Credit#**  
**Recommended Background:** Interest in the subject and completion of previous social studies course with a "B" or better.

IB Social and Cultural Anthropology is a one-year college level comparative study of human societies and culture. It explores both the universal principles of social and cultural life and characteristics of specific societies and cultures. The course examines society from the small scale to the complex industrial scale, as well as modern nation states.

**Note:** This course can be used to satisfy the Group 6 "art or elective" requirement for full IB Diploma Program students.

**IB PSYCHOLOGY (SL)** IB2903  
**Grade 11 or 12** **1 Credit#**  
**Recommended Background:** Interest in the subject and completion of previous social studies course with a "B" or better.

The IB Psychology is a one-year course most appropriately defined as the systematic study of human experience and behavior; physical, economic and social environments; and the history and development of social and cultural institutions. Students will collect, describe and analyze data used in studies of society, to test hypotheses and interpret complex data and source material. At the standard level students are required to study the biological, cognitive, learning and humanistic perspectives, to use qualitative and quantitative research methodology, and to complete an experimental study.

**Note:** This course can be used to satisfy the Group 6 "art or elective" requirement for full IB Diploma Program students.

**IB BUSINESS MANAGEMENT (SL)** IB6135  
**Grade 11 or 12** **1 Credit#**  
**Recommended Background:** "B" or higher in prior business math courses recommended

Business and Management is a one-year course designed to provide a broad introduction to the principles and practices of organizations, set in a scene of international markets, exchange, and production. A written assessment based on the application of tools, techniques, and theory to a real business situation or problem is internally assessed by the classroom teacher.

**Note:** This course can be used to satisfy the Group 6 "art or elective" requirement for full IB Diploma Program students.



## ELECTIVE COURSES

### EXPLORING LOCAL HISTORY Grades 11-12

**2998**  
**1 Credit**

This year-long elective course will furnish students with an opportunity for an in-depth, multi-perspective examination of the people and places of Stafford and the greater Fredericksburg region. The course will emphasize 21st Century learning skills of information literacy, communication, critical thinking, citizenship, and independent and collaborative learning. Key to successful completion of this course will be ability to conduct research and complete projects. Students enrolling in the course should have an interest in United States history and have taken or are currently taking US/VA History.

### GLOBAL ISSUES Grades 11-12

**2996**  
**1 Credit**

This course will provide an opportunity for in-depth study of current world events. In addition, students will investigate the geographic, economic, social, and cultural background of current world events. Students should have a strong intellectual curiosity concerning world affairs and successfully completed prior social studies coursework.

### SOCIOLOGY Grades 10-12

**2500**  
**1 Credit**

This introductory Social Science course will include studies in social change, social status, group behavior, and adjustment to personal problems and situations throughout life and society. Students should have successfully completed prior coursework in English and social studies.

### PSYCHOLOGY Grades 10-12

**2900**  
**1 Credit**

This course is designed to introduce students to the systemic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields. They also learn about the ethics and methods psychologists use in their science and practice.

English

History/SS

Math

Science

WL

FPA

HPE

ESOL

Add'l Credits

CTE

**MATHEMATICS**

Preparing students to pursue higher education, to compete in a global workforce, and to be informed citizens requires rigorous mathematical knowledge and skills. Students must gain an understanding of fundamental ideas in number sense, computation, measurement, geometry, probability, data analysis and statistics, and algebra and functions, and they must develop proficiency in mathematical skills. The content of the mathematics standards is intended to support the following five process goals for students: becoming mathematical problem solvers, communicating mathematically, reasoning mathematically, making mathematical connections, and using mathematical representations to model and interpret practical situations. Weighted grades are designated by a # for AP and IB courses. All classes may not be offered at all schools due to enrollment and availability.

**GENERAL COURSE SEQUENCE****ALGEBRA I, PART I** **3131**  
**Grade 9** **1 Elective Credit**

Algebra I Part I is the first course of the two-course equivalent of Algebra I. Course topics include, evaluating algebraic expressions, solving linear equations and inequalities, investigating and analyzing linear function families, and performing operations with polynomials. Successful completion of this course counts as one elective credit towards Standard and Advanced Studies diplomas. Students must successfully complete both parts in order to meet the state requirements for Algebra I under the Standards of Learning. There is no SOL test at the end of this course.

**ALGEBRA I, PART II** **3132**  
**Grades 9-11** **1 Credit**  
**Successful completion of Algebra I, Part I**

Algebra I Part II completes the Algebra I requirement. Course topics include solving systems of equations, investigating and analyzing quadratic function families, and statistics. In order to receive one credit for Algebra I, the student must successfully complete, in sequential order, both Part I and Part II. Students will take the Standards of Learning Algebra I test at the end of the course.

**ALGEBRA I** **3130**  
**Grades 9-10** **1 Credit**

Algebra I requires students to use algebra as a tool for representing and solving a variety of practical problems. Included in the progression of algebraic content is patterning, generalization or arithmetic concepts, proportional reasoning, and representing mathematical relationships using tables, symbols, and graphs. Students will take the SOL Algebra I test at the end of the course.

**HONORS ALGEBRA I** **3130H**  
**Grade 9** **1 Credit**

This advanced course, designed to prepare students for both AP and IB courses, allows students to make connections between algebraic and graphic representations of linear and quadratic functions. This course is taught at an accelerated pace. Students will take the SOL Algebra I test at the end of the course. Schools offering course: CFHS

**GEOMETRY, PART I** **3144**  
**Grades 9-11** **1 Elective Credit**  
**Successful completion of Algebra I**

Geometry Part I is the first course of the two-course equivalent of Geometry. This course emphasizes two- and three-dimensional reasoning skills and the use of geometric models to solve problems. Students must successfully complete both parts in order to meet the

state requirements for Geometry under the Standards of Learning. There is no SOL test at the end of the course.

**GEOMETRY, PART II** **3145**  
**Grades 10-12** **1 Credit**  
**Successful completion of Geometry, Part I**

Geometry, Part II completes the Geometry requirement. This course emphasizes coordinate and transformational geometry and the exploration of geometric relationships through trigonometric relationships and mathematical proofs. In order to receive one credit for Geometry, the student must successfully complete, in sequential order, both Part I and Part II. Students who complete this course will take the SOL Geometry test at the end of the course.

**GEOMETRY** **3143**  
**Grades 9-12** **1 Credit**  
**Successful completion of Algebra I**

Geometry is a course with an emphasis on developing reasoning skills through the explorations of geometric relationships including properties of geometric figures, trigonometric relationships, and mathematical proofs. The course is designed to develop effective methods of thinking through deductive reasoning. Students will take the SOL Geometry test at the end of the course.

**HONORS GEOMETRY** **3143H**  
**Grade 9-10** **1 Credit**  
**Successful completion of Algebra I**

This advanced course, designed to prepare students for both AP and IB courses, is an enriched Geometry curriculum with greater emphasis on proofs, logical reasoning and the application of theorems. This course is taught at an accelerated pace. Students will take the SOL Geometry test at the end of the course.

**ALGEBRA, FUNCTIONS, AND DATA ANALYSIS** **3134**  
**Grades 10-12** **1 Credit**  
**Successful completion of Algebra I and/ or Geometry**

This course is designed for students who have successfully completed the standards for Algebra I and may benefit from additional support in their transition to Algebra II. Through the investigation of mathematical models and interpretation/analysis of data from relevant, applied contexts and situations, students will strengthen conceptual understandings in mathematics and further develop connections between algebra and statistics. Graphing utilities (calculators, computer, and other technology tools) will be used to assist in teaching and learning.

**ALGEBRA II**  
**Grades 10-12**

**3135**  
**1 Credit**

**Successful completion of Geometry or Algebra Functions, and Data Analysis**

Algebra II expands and clarifies the concepts introduced in Algebra I. A thorough treatment of advanced algebraic concepts will be provided through the study of functions, equations, inequalities, systems of equations, polynomials, rational and radical equations, complex numbers, and sequences and series. Emphasis will be placed on practical applications and modeling throughout the course of study. Students will take the SOL Algebra II test at the end of the course.

**HONORS ALGEBRA II**  
**Grades 9-12**

**3135H**  
**1 Credit**

**Successful completion of Geometry**

This advanced course, designed to prepare students for both AP and IB courses, is an enriched Algebra II curriculum with an in-depth study of equations and functions. This course is taught at an accelerated pace. Students will take the SOL Algebra II test at the end of the course.

**ALGEBRA III WITH TRIGONOMETRY**  
**Grades 11-12**

**3160**  
**1 Credit**

**Successful completion of Algebra II**

Algebra III with Trigonometry reviews and extends the concepts taught in Algebra II and Geometry in preparation for the SAT and other Math Achievement tests. It includes topics on triangular and circular trigonometric functions, study of polynomials, and, exponential and logarithmic functions.

**MATH ANALYSIS WITH TRIGONOMETRY**  
**Grades 10-12**

**3162**  
**1 Credit**

**Successful completion of Algebra II**

Math Analysis, designed to prepare for both AP and IB courses, serves as appropriate preparations for a calculus course. This course covers the application of trigonometric functions and their relationships by the circular approach and by the triangular approach. Students will also work with exponential and logarithmic functions, sequences and series, vectors, parametric and polar coordinates, and limits.

**STATISTICS/PROBABILITY WITH DISCRETE TOPICS**  
**Grades 11-12**

**3190**  
**1 Credit**

**Successful completion of Algebra II**

This course is designed for students who plan to enter such fields as business, education, economics, computers, psychology, sociology, medicine, etc., which require the organization and the interpretation of data to be successful in their jobs. This course will also provide a fundamental background for those students who plan careers in engineering, mathematics, or the sciences.

**AP COURSE SEQUENCE**

**AP STATISTICS**

**3192**

**Grades 11-12**

**1 Credit#**

**Successful completion of Algebra II**

The purpose of this course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to exploring data, sampling and experimentation of data, anticipating patterns, and statistical inference. Students will be prepared to take the year-end AP Statistics exam for possible college credit. For further information, please see your math department chairperson. Summer assignments may be provided.

**AP CALCULUS AB**

**3177**

**Grades 11-12**

**1 Credit#**

**Successful completion of Math Analysis with Trigonometry**

AP Calculus AB addresses the theory and practice of differential and integral calculus of a function of one variable. Topics include functional analysis, limits, continuity, the derivative and applications, and solving problems which deal with the rate of change. The content of this course is equivalent to one semester of college calculus. Students will be prepared to take the year-end AP Calculus AB exam for possible college credit.

**AP CALCULUS BC**

**3178**

**Grades 11-12**

**1 Credit#**

**Successful completion of Math Analysis with Trigonometry**

AP Calculus BC covers the same topics as that covered in AB Calculus. In addition, students in Calculus BC will apply calculus techniques to polar curves, parametric equations, vector function sequences and series, and slope fields. The content of this course is equivalent to two semesters of college calculus. Students will be prepared to take the year-end AP Calculus BC exam for possible college credit.

**AP COMPUTER SCIENCE A**

**3185**

**Grades 10-12**

**1 Credit#**

**Successful completion of Algebra II**

The focus of this course is to provide students with a conceptual background in computer science. The major emphasis is on programming methodology, algorithms, and non-dynamic data structure in the JAVA language. Students will be prepared to take the year-end AP Computer Science A exam for possible college credit. Summer assignments may be provided.

**CGS COURSE SEQUENCE**

**MATHEMATICS 9: HONORS ALGEBRA II**

**3135G**

**Grade 9**

**1 Credit**

This course presents an in-depth study of algebra topics, including the study of linear and quadratic equations, functions and systems; irrational and complex numbers, matrix theory, conic sections, and polynomials; sequences and series; and probability. Students will take the Standards of Learning Algebra II test.

**MATHEMATICS 10: HONORS GEOMETRY WITH TRIGONOMETRY****Grade 10****3143G  
1 Credit**

This course will consist of a range of geometry and trigonometry topics, including logic and deductive reasoning, angles, parallel lines, congruence and similarity, triangles, quadrilaterals, polygons, circles, trigonometric functions (triangular and circular), trigonometric identities, and applications of trigonometry. Students will take the Geometry SOL.

**HONORS MATH ANALYSIS WITH DISCRETE TOPICS****Grades 10-11****3162G  
1 Credit**

This course will study functions and their properties, including exponential and logarithmic, rational, and trigonometric functions (triangular and circular). Trigonometric identities, applications of trigonometry, parametric equations, vectors, sequences, and series will also be explored. Discrete topics will include the mathematics of choice, management science, and growth and symmetry.

**AP CALCULUS BC****Grades 11-12****3178G  
1 Credit#**

This course includes concepts and applications of differential and integral calculus, sequences and series, and elementary differential equations. Experiences with appropriate microcomputer software and graphing calculators are included. Students will be eligible to take the Advanced Placement Calculus AB or BC exam. Summer assignments may be required.

**AP STATISTICS****Grades 11-12****3192G  
1 Credit#**

This course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: Exploring Data: observing patterns and departures from patterns; Planning a Study: deciding what and how to measure; Anticipating Patterns: producing models using probability theory and simulation; Statistical Inference: confirming models. The course will follow the curriculum for the Advanced Placement Examination in Statistics. Summer assignments may be required.

**IB COURSE SEQUENCE**

**The students will be prepared and are encouraged to take the year-end IB examination for possible college credit**

**Schools offering these courses: BPHS and MVHS**

**IB COMPUTER SCIENCE (SL)****Grades 11 -12****IB3185  
1 Credit#**

**Successful completion of AP Computer Science A recommended**

The content of this 1-year course includes software development, computer systems, system design, social significance, number systems and Boolean Logic, advanced data structures and algorithms, objects and their use in problem solutions, the system life cycle, and file organization. The understanding of a case study will be included. Students will complete an in-depth project that demonstrates mastery of all required Standard Level aspects.

**IB MATHEMATICS: APPLICATIONS AND INTERPRETATION (SL)****Grade 11****TBD  
1 Credit#**

**Recommended Background: "B" or higher in Algebra I, Geometry, and Algebra II for year one. A "C" or higher is recommended in year 1 to go on to year 2.**

This is a 2-year IB math course for students with varied backgrounds and abilities. Skills needed for the demands of a technological society are developed, but specific technical expertise is not required. The course enables students to appreciate varied cultural and historical perspectives of mathematics. Topics: Numbers and Algebra, Functions, 3-dimensional Geometry and Trigonometry, Statistics and Probability, Introductory Differential and Integral Calculus with applications in optimizations.

**Note: Students who are likely to need mathematics in pursuit of a science or mathematics career are advised to consider IB Mathematics Analysis or Application and Interpretation HL. Schools offering course: BPHS, MVHS**

**IB MATHEMATICS: ANALYSIS (SL)****Grade 11****TBD  
1 Credit#**

**Recommended Background: "B" or higher in Algebra I, Honors Geometry, Honors Algebra II, and Math Analysis for year one. A "C" or higher is recommended in year 1 to go on to year 2.**

This is the a 2-year IB math course designed for strong math students who are preparing for studies in subjects such as science, engineering, economics, technology, and architecture. The course enables students to appreciate varied cultural and historical perspectives of mathematics. The goal of this course is to provide students with a solid foundation of Algebra, Functions, 3-dimensional Geometry and Trigonometry, Statistics and Probability, and Differential and Integral Calculus to include optimization and kinematics.

**IB MATHEMATICS: APPLICATIONS AND INTERPRETATION (HL)****Grade 11****TBD  
1 Credit#**

**Recommended Background: "B" or higher in Algebra I, Honors Geometry, Honors Algebra II, and Math Analysis for year 1. A "C" or higher is recommended in year 1 to go on to year 2.**

This is a 2-year IB math designed for studies in subjects such as science, medicine, psychology and technology. Skills needed for the demands of a data-driven society are developed. The course enables students to appreciate varied cultural and historical perspectives of mathematics. Topics: Number and Algebra (to include complex numbers, matrices, and systems), Functions (to include fitting models to data), 3-dimensional Geometry and Trigonometry with vectors, Statistics and Probability (to include hypothesis testing and confidence intervals), Differential and Integral Calculus with applications in optimizations, kinematics, and differential equations.



**IB MATHEMATICS: ANALYSIS (HL)****Grade 11****TBD****1 Credit#**

**Recommended Background:** "B" or higher in Algebra I, Honors Geometry, Honors Algebra II, and Math Analysis for year 1. A "C" or higher is recommended in year 1 to go on to year 2.

This is 2-year IB math course designed for strong math students who are preparing for studies in subjects such as science, engineering, economics, technology, and architecture. The course enables students to appreciate varied cultural and historical perspectives of mathematics. The goal of this course is to provide students with a solid foundation of Algebra (to include complex numbers and systems) Functions (to include solving both graphically and analytically), 3-dimensional Geometry and Trigonometry (to include inverse and reciprocal trig functions, and vector applications of lines and planes), Statistics and Probability (to include Bayes' Theorem and probability distributions), and Differential and Integral Calculus (to include optimization, kinematics, differential equations and Maclaurin series).

**IB MATH STUDIES (SL)****Grade 12****IB3163 & IB3196****1 Credit per Year#**

**Recommended Background:** "B" or higher in Algebra I, Geometry and Algebra II courses for IB year one. "C" or higher in IB year one to go on to IB year two.

This is a 2-year IB math course for students with varied backgrounds and abilities. Skills needed for the demands of a technological society are developed, but specific technical expertise is not required. The course enables students to appreciate varied cultural and historical perspectives of mathematics. Topics: Numbers and Algebra, Sets, Logic and Probability, Functions, Geometry and Trigonometry, Statistics, Introductory Differential Calculus, and Financial Mathematics. Note: Students who are likely to need mathematics in pursuit of a science or mathematics career are advised to consider IB Mathematics SL or HL.

**IB MATHEMATICS 12 (SL)****Grade 12****IB3198****1 Credit#**

**Recommended Background:** "C" or higher in IB Mathematics 11

This is the second year of a 2-year course designed for strong math students who are preparing for studies in subjects such as science, engineering, economics, psychology, and architecture. The goal of this course is to expand on the students' established foundation of vectors, matrices, statistics and probability, expanding into the concepts, techniques, and applications of calculus. An important aim of this course is to enable students to appreciate the multiplicity of cultural and historical perspectives of mathematics.

**IB MATHEMATICS 12 (HL)****Grades 12****IB3197****1 Credit#**

**Recommended Background:** "C" or higher in IB Mathematics 11 and teacher recommendation

This is the second year of a 2-year course designed for strong math students who are preparing for studies in subjects such as science, engineering, economics, psychology, and architecture. Course content includes integral calculus, the study of the theory and application of probability, random variables, both descriptive and inferential statistics, three-dimensional vectors, infinite series and differential equations.

**ELECTIVE COURSES****ALGEBRA READINESS****Grades 9-10****3200-3201****1 Elective Credit**

**Recommended Background:** Assigned based on SOL Mathematics scores

This course is designed for students who need serious mathematics intervention in a focused group setting. Students may be required to participate in this remedial program which does not replace any required math courses. Basic math concepts such as place value and meanings of operations will be taught. Emphasis will be on developing understanding in areas of weakness. An opportunity to retake the eighth grade SOLs will be offered. Upon successful completion of this course, the student will receive one elective credit.

**Schools offering course:** BPHS, CFHS, NSHS, SHS

**AP COMPUTER SCIENCE PRINCIPLES****Grades 9-12****3186****1 Credit#**

This course is designed to focus on computational thinking practices, which enables students to engage with the course content by developing computational artifacts and analyzing data, information, or knowledge represented for computational use. The course will emphasize the following elements: connecting computing (to include creative computing), creating computational artifacts, abstracting, communicating, and collaborating. The course was created to be equivalent to a first-semester introductory college computing course. Students will be prepared to take the year-end AP Computer Science Principles exam for possible college credit.

**SCIENCE**

High school science courses play an important, unique and essential role in today's ever-changing world. Students' knowledge of earth, space, life and physical sciences is critical to becoming scientifically literate citizens. All science courses are laboratory and activity-oriented to develop these important skills.

**GENERAL COURSE SEQUENCE****EARTH SCIENCE** **4210**  
**Grades 9-10** **1 Credit**

This in-depth course explores physical and historical geology, meteorology, astronomy, and oceanography. There is strong emphasis on lab work. Students will take the SOL test. This course may be taken concurrently with Biology.

**HONORS EARTH SCIENCE** **4210H**  
**Grade 9** **1 Credit**

This advanced course, designed by SCPS as a pre-AP course, explores physical and historical geology, meteorology, astronomy, and oceanography in preparation for entrance into college, AP, and/or IB courses. There is strong emphasis on lab work and independent research. The instruction will provide more detailed labs and projects. Information from scientific journals and current events will also be explored. Students will take the SOL test. This course may be taken concurrently with Biology.

**BIOLOGY** **4310**  
**Grades 9-10** **1 Credit**

This in-depth course explores cell structure and function, genetics, and the diversity of life. There is strong emphasis on lab work. Students may take the SOL test. This course may be taken concurrently with Earth Science.

**HONORS BIOLOGY** **4310H**  
**Grades 9-10** **1 Credit**

This advanced course, designed by SCPS as a pre-AP and IB course, explores cell structure and function, genetics, and the diversity of life in preparation for entrance into college, AP, and/or IB courses. There is strong emphasis on lab work and independent research. The instruction will provide more detailed labs and projects. Students may take the SOL test. This course may be taken concurrently with Earth Science.

**CHEMISTRY** **4410**  
**Grades 10-12** **1 Credit**

This course is designed to introduce the student to the basic theory of chemistry. Algebra II must either be completed or taken concurrently for enrollment in this course. Topics include formula writing, balancing equations, solutions, acids and bases, dimensional analysis, reactions, electron theory, atomic theory, molar concept, gas laws, and basic organic chemistry. Lab work is an integral part of this course. Students may take the SOL test during this course.

**HONORS CHEMISTRY** **4410H**  
**Grades 10-11** **1 Credit**

The advanced chemistry course, designed by SCPS as a pre-AP and IB course, is a fast-paced course that explores, in depth,

chemistry concepts and the scientific process. Algebra II must either be completed or taken concurrently for enrollment in this course. There is strong emphasis on lab work and independent research. The instruction will provide more detailed labs and projects. Students might be required to design and conduct an independent research project. The major skills used by practicing chemists are emphasized. Students may take the SOL test during this course.

**PHYSICS** **4510**  
**Grades 11-12** **1 Credit**

This course covers the laws of mechanics, electricity and magnetism, electro-magnetic wave theory, elementary nuclear physics and relativity. Algebra II must either be completed or taken concurrently for enrollment in this course. It requires competence in the metric system and conversions, scientific notation, and manipulation of algebraic equations.

**HONORS PHYSICS** **4510H**  
**Grades 11-12** **1 Credit**

This advanced physics class is a fast-paced course, designed by SCPS as a pre-AP and IB course that explores the following topics in depth: mechanics, waves, thermal, electricity and magnetism. Algebra II must either be completed or taken concurrently for enrollment in this course. Students are expected to use the scientific method to design labs. There is strong emphasis on lab work and independent research. Students must be able to solve an equation for an unknown, perform metric conversions, comfortable with use of a graphing calculator, analyze data and synthesize outcomes. This course is strongly recommended for those who wish to pursue a degree in engineering or science.

**Schools offering course: BPHS, NSHS**

**AP/DE COURSE SEQUENCE**

**Note: AP courses require that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices. Students will be prepared and encouraged to take the AP exam for possible college credit.**

**AP BIOLOGY** **4370**  
**Grades 10-12** **1 Credit#**  
**Successful completion of Biology and Chemistry**

This course is the equivalent of a college introductory biology course. The course follows the AP College Board criteria addressing three general areas of study: molecules and cells, heredity and evolution, and organism and populations. The two main goals of AP Biology are to help students develop a conceptual framework for modern biology and to help students gain an appreciation of science as a process.

**Note: This course may not be audited.**

**Schools offering course: CFHS, NSHS, SHS**

**AP BIOLOGY LAB**  
**Grades 11-12**

This AP Science course may be offered with a separate lab period. Students will not receive weighted grade for the lab and will count as an elective credit.

**Schools offering course: TBD**

**AP CHEMISTRY**  
**Grades 11-12**

**Successful completion of Algebra II**

This course is the equivalent of a college introductory chemistry course. Emphasis will be placed on chemical calculations, the mathematical formulations of principles, and laboratory work. **Note: This course may not be audited.**

**Schools offering course: CFHS, NSHS, SHS**

**AP CHEMISTRY LAB**  
**Grades 11-12**

This AP Science course may be offered with a separate lab period. Students will not receive weighted grade for the lab and will count as an elective credit.

**Schools offering course: TBD**

**AP PHYSICS 1**  
**Grades 11-12**

**Successful completion of Geometry**

This course is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills.

**Note: This course may not be audited.**

**Schools offering course: CFHS, NSHS, SHS**

**AP PHYSICS LAB**  
**Grades 11-12**

This AP Science course may be offered with a separate lab period. Students will not receive weighted grade for the lab and will count as an elective credit.

**Schools offering course: TBD**

**AP PHYSICS 2**  
**Grade 12**

**Concurrent enrollment in Pre-Calculus**

This course is an algebra-based, introductory college-level physics course that explores topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields, electromagnetism; physical and geometric optics; and quantum atomic, and nuclear physics. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills.

**Note: This course may not be audited.**

**Schools offering course: TBD**

**4370L**  
**1 Lab Credit**

**4470**  
**1 Credit#**

**4470L**  
**1 Lab Credit**

**4573**  
**1 Credit#**

**4573L**  
**1 Lab Credit**

**4574**  
**1 Credit#**

**AP PHYSICS 2 LAB**  
**Grades 12**

This AP Science course may be offered with a separate lab period. Students will not receive weighted grade for the lab and will count as an elective credit.

**Schools offering course: TBD**

**AP ENVIRONMENTAL SCIENCE**  
**Grades 10-12**

**Successful completion of Algebra I**

This course is designed to provide students with the methodologies required to understand the interrelationships of the natural world, identify and analyze both natural and human-made environmental problems, evaluate relative risks and examine alternative solutions for resolving these problems.

**Note: This course may not be audited.**

**Schools offering course: CFHS, NSHS, SHS**

**DE HONORS BIOLOGY**  
**Grades 11-12**

Dual Enrollment Biology is an accelerated course that explores fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on biological principles. The course provides lab experiences in handling, constructing, and manipulating materials in a safe manner and develops abilities to measure, organize, and communicate scientific information. The Biology SOL test will be required unless the student has previously passed this test. Students who successfully complete the course will receive two semesters of college credit through Germanna Community College as well as one year of high school credit.

**Note: This course may not be audited.**

**Schools offering course: TBD**

**DE HONORS CHEMISTRY**  
**Grades 11-12**

Dual Enrollment Chemistry is a college level course that explores the fundamental laws, theories, and mathematical concepts of chemistry. It is designed primarily for science and engineering majors. Students who successfully complete the course will receive two semesters of college credit through Germanna Community College as well as one year of high school credit. Students who have received a high school Chemistry credit may also receive credit for successful completion of Dual Enrollment Chemistry.

**Note: This course may not be audited.**

**Schools offering course: TBD**

**4574L**  
**1 Lab Credit**

**4270**  
**1 Credit#**

**4320D**  
**1 Credit#**

**4420D**  
**1 Credit#**

English  
History/SS  
Math  
Science  
WL  
FPA  
HPE  
ESOL  
Add'l Credits  
CTE

**CGS COURSE SEQUENCE****SCIENCE 9: AP ENVIRONMENTAL SCIENCE** **4270G**  
**Grade 9** **1 Credit#**

This course is designed to provide students with the methodologies required to understand the interrelationships of the natural world, identify and analyze both natural and human-made environmental problems, evaluate relative risks and examine alternative solutions for resolving these problems. Geometry or higher must either be completed or taken concurrently for enrollment in this course. This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices. Students will be prepared to take the year-end AP Environmental Science exam for possible college credit.

**SCIENCE 10: AP BIOLOGY** **4370G**  
**Grade 10** **1 Credit#**

This course is the equivalent of a college introductory biology course. The course follows the AP College Board criteria addressing three general areas of study: molecules and cells, heredity and evolution, and organism and populations. The two main goals of AP Biology are to help students develop a conceptual framework for modern biology and to help students gain an appreciation of science as a process. This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices. Students will be prepared to take the year-end AP Biology exam for possible college credit.

**SCIENCE 11: DE CHEMISTRY** **4420G**  
**Grade 11** **1 Credit#**

Dual Enrollment Chemistry is a college level course that explores the fundamental laws, theories, and mathematical concepts of chemistry. It is designed primarily for science and engineering majors. Students who successfully complete the course will receive two semesters of college credit through Germanna Community College as well as one year of high school credit. Students who have received a high school Chemistry credit may also receive credit for successful completion of Dual Enrollment Chemistry.

**SCIENCE 12: AP PHYSICS 1** **4573G**  
**Grade 12** **1 Credit#**

This course is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices. Students will be prepared to take the year-end AP Physics exam for possible college credit.

**IB COURSE SEQUENCE**

**Note:** Each IB science course involves laboratory work as an integral part where students are required to submit written laboratory reports that are internally assessed by the classroom teacher as well as externally assessed by trained IB examiners. Participation in the interdisciplinary Group 4 research project varies by course and level. Students will be prepared and encouraged to take the year-end IB examination for possible college credit

**IB BIOLOGY (HL)** **IB4390 & IB4391**  
**Grade 11&12** **1 Credit per Course#**

**Recommended Background:** "B" or higher in Honors Biology, Chemistry, Algebra I and II courses for IB year one. "C" or higher in IB year one to go on to IB year two.

IB Biology is a two-year course that provides an overview of the major principles and processes in the areas of molecular and cellular biology, genetics, ecology, and organisms. Laboratory work is an integral part of this course and students are required to submit written laboratory reports. Key points of the first year are structure and function, universality versus diversity, and equilibrium within systems. The second year provides an introduction to advanced anatomy and physiology and plant biology.  
**Schools offering course: BPHS, MVHS**

**IB BIOLOGY 11 (SL)** **IB4380**  
**Grade 11** **1 Credit#**

**Recommended Background:** "B" or higher in Honors Biology, Chemistry\*, Algebra I and II courses for IB year one. "C" or higher in IB year one to go on to IB year two. \*May be taken concurrently

This is the first year in a two-year course that provides an overview of the major principles and processes in the areas of molecular and cellular biology, genetics, ecology, and organisms. Key points of the first year are structure and function, universality versus diversity, and equilibrium within systems.  
**Schools offering course: BPHS**

**IB BIOLOGY 12 (SL)** **IB4381**  
**Grade 12** **1 Credit#**

**Recommended Background:** "C" or higher in IB year one.

This is the second year in a two-year course that continues from the overview of major principles and processes in the areas of molecular and cellular biology, genetics, ecology, and organisms. Students will design and implement their own laboratory investigations and participate in the interdisciplinary Group 4 science research project. The second year provides a focus on ecology, neurobiology, biotechnology, and physiology.  
**Schools offering course: BPHS**



**IB CHEMISTRY (HL)** **IB4490 & IB4491**  
**Grade 11 & 12** **1 Credit per Course#**  
*Recommended Background: "B" or higher in Honors Biology, Chemistry, Algebra I and II courses for IB year one. "C" or higher in IB year one to go on to IB year two.*

IB Chemistry is a two-year course that provides an overview of the major principles and processes in the areas of stoichiometric relationships, atomic structure, periodicity, chemical bonding and structure, energetics/thermochemistry, chemical kinetics, equilibrium, acids and bases, redox processes, organic chemistry, measurement, and data processing. The second year provides atomic structure, the periodic table—the transition metals, chemical bonding and structure, energetics/thermochemistry, chemical kinetics, equilibrium, acids and bases, redox processes, organic chemistry, measurement, and analysis.

**Schools offering course: BPHS, MVHS**

**IB CHEMISTRY 11 (SL)** **IB4480**  
**Grade 11** **1 Credit#**  
*Recommended Background: "B" or higher in Honors Chemistry, Biology, Algebra I and Algebra II*

This is the first year in a two-year course that provides a survey of the major principles of chemistry, including the structure of matter, kinetic theory of gases, chemical equilibrium, chemical kinetics, thermodynamics, acid-base theory, and organic chemistry. This course emphasizes problem-solving, proficiency in mathematical usage, and improvement & expansion of laboratory techniques as related to contemporary chemistry, to include experiment design. Students in this course continue to the second year of IB Chemistry (SL) or IB Chemistry (HL), based on grade achieved and teacher recommendation.

**Schools offering course: BPHS**

**IB CHEMISTRY 12 (SL)** **IB4481**  
**Grade 12** **1 Credit#**  
*Recommended Background: "C" or higher in IB Chemistry 11*

This is the second year in a two-year course that provides a survey of the major principles of chemistry, including the structure of matter, kinetic theory of gases, chemical equilibrium, chemical kinetics, thermodynamics, acid-base theory, and organic chemistry. This course emphasizes problem-solving, proficiency in mathematical usage, and improvement & expansion of laboratory techniques as related to contemporary chemistry, to include experiment design.

**Schools offering course: BPHS**

**IB PHYSICS (HL)** **IB4590 & IB4591**  
**Grade 11-12** **1 Credit#**  
*Recommended Background: "B" or higher in Honors Physics, Algebra I and Algebra II. "C" or higher in IB year one to go on to IB year two.*

This two-year course includes the study of mechanics, heat, electromagnetism, light, sound, and modern physics. Emphasis is on problem solving, proficiency in mathematical usage, and improvement and expansion of laboratory techniques as related to contemporary physics to include experimental design.

**Schools offering course: BPHS**

**IB PHYSICS 1 (SL)** **IB4380**  
**Grade 11** **1 Credit#**  
*Recommended Background: "B" or higher in Algebra I and Algebra II*

This is the first year in a two-year course sequence that covers a core of physics topics, such as measurements and uncertainties, mechanics, circular motion and gravitation, electromagnetism, and waves. Emphasis is on problem-solving, proficiency in mathematical usage, and improvement and expansion of laboratory techniques as related to contemporary physics, including experimental design. Students in this course continue to the second year of IB Physics either SL or HL, based on student choice, grade achieved, and teacher recommendation.

**Schools offering course: BPHS, MVHS**

**IB PHYSICS 2 (SL)** **IB4581**  
**Grade 12** **1 Credit#**  
*Recommended Background: "C" or higher in IB Physics 1*

This second year of the two-year course includes review of first-year topics and continuation to further physics topics such as thermal physics, energy production, atomic, nuclear, and particle physics, and at least one of the following optional topics: relativity, engineering physics, imaging, or astrophysics. Emphasis is on problem-solving, proficiency in mathematical usage, and improvement and expansion of laboratory techniques as related to contemporary physics, including experimental design.

**Schools offering course: BPHS, MVHS**

**IB ENVIRONMENTAL SYSTEMS AND SOCIETIES (SL)** **IB4281**  
**Grades 11-12** **1 Credit#**  
*Recommended Background: Completion of Honors Biology or Honors Chemistry with a grade of "B" or higher*

This one-year course enables students to develop a coherent perspective on the environment. This course uses the concepts and terminology associated with a system approach to study. These principles are subsequently applied to the study of natural ecosystems, their component parts, along with functional relationships that maintain their dynamic integrity. Topics include global cycles and physical systems, human population, fresh water ecosystems, conservation and biodiversity, and pollution.

**Schools offering course: BPHS, MVHS**

## ELECTIVE COURSES

**Environmental Science** **4265**  
**Grades 9-10** **1 Credit**

This course is designed for students to introduce the student to vocabulary, concepts, phenomena, systems, and processes to better understand the natural world. The course will build on the middle school science content and investigations to prepare students for successive entry into either Earth Science or Biology to earn verified credit. Instruction will build science literacy through inquiry, student data collection and analysis using appropriate tools, laboratory experiences, and field work including a meaningful watershed experience.

**Schools offering course: TBD**

**BIOLOGY II: ECOLOGY** **4340**  
**Grades 11-12** **1 Credit**  
**Successful completion of Earth Science and Biology**

This course is designed for students to investigate environmental phenomenon, principles, and how human activities impact Earth. Laboratory experiments, STEM and field investigations are used to teach conceptual themes through process skills to build science literacy and responsible resource stewardship. Students are required to submit written laboratory reports and to design and conduct an investigation whether in small groups or as an individual.

**BIOLOGY II: ANATOMY AND PHYSIOLOGY** **4330**  
**Grades 11-12** **1 Credit**  
**(Grade 10, if background is met)**  
**Successful completion of Biology**

This is an advanced course which covers anatomy, physiology, and the pathology of humans. Chemistry must either be completed or taken concurrently for enrollment in this course. It is designed primarily for the student anticipating a medical career or life science major in college. Lab emphasis is on dissection and microscope usage.

**EARTH SCIENCE II: GEOLOGY** **4240**  
**Grades 10-12** **1 Credit**  
**Successful completion of Earth Science**

This is an in-depth course dealing with the physical and historical aspects of the Earth most suited for students who have a strong interest in science. Biology may be taken concurrently. Emphasis will be placed on those geological processes and features that govern the Earth. Extensive laboratory experiences and occasional field excursions are provided to enhance the students understanding and application of the course material.

**EARTH SCIENCE II: OCEANOGRAPHY** **4250**  
**Grades 11-12** **1 Credit**  
**Successful completion of Earth Science**

In this course the theories of Earth's structure and plate tectonics will be presented as a base on which to build the explanation of the physical features of the ocean floor. Chemistry must either be completed or taken concurrently for enrollment in this course. Both historical and physical geology of the ocean floor will be investigated. Students will study the physical properties of sea water, marine chemistry, marine organisms, salinity and density, circulation with the oceans, waves, currents, tides, and oceanographic instruments and research. Emphasis will be placed on the major skills of practicing oceanographers and scientists. Students will be required to submit written laboratory reports and to design and conduct investigations in small groups, as an individual, or as a class.

## WORLD LANGUAGE

World language study is recommended for the college-bound and career-minded students for whom the knowledge of a world language is a valuable asset. World language study helps to develop respect for cultural diversity as well as confidence in basic skills of communication. World languages count as elective credit in the Standard Diploma. For the Advanced Studies Diploma, a student must take three years of one language or two years each of two different languages (2+2 option). All classes may not be offered at all schools due to enrollment and availability. AP French, AP German, AP Latin and AP Spanish are not offered at all schools.

### GENERAL COURSE SEQUENCE

#### AMERICAN SIGN LANGUAGE

##### AMERICAN SIGN LANGUAGE I 5990 1 Credit

*Grades 10-12*

This course is designed to give students a foundation of sign language and the culture of the deaf community. Students will learn appropriate behaviors, showing awareness of and respect for deaf culture. Deaf culture is taught through discussions, activities, reading, and videos. This is a performance-based course with an emphasis on vocabulary and grammatical skills through the use of the language. Immersion strategies are used in this course.

##### AMERICAN SIGN LANGUAGE II 5995 1 Credit

*Grades 10-12*  
*Successful completion of prior level*

Students continue to increase their skills in American Sign Language. They will add to their vocabulary and increase proficiency in grammatical features and conversational skills. Knowledge of and sensitivity to the deaf culture and the community of deaf people will continue to be emphasized. Immersion strategies are used in this course.

##### AMERICAN SIGN LANGUAGE III 5997 1 Credit

*Grades 10-12*  
*Successful completion of prior level*

The course includes vocabulary-building and mastery of grammar through rigorous receptive and expressive language activities. This course includes receptive and expressive readiness activities, sign vocabulary, ASL grammar structure, receptive and expressive fingerspelling, conversational behaviors and various aspects of deaf culture. Immersion strategies are used in this course.

**Schools offering course:** CFHS, MVHS, NSHS, SHS

#### FRENCH

##### FRENCH LEVEL I 5110 1 Credit

*Grades 8-12*

Students gain an understanding of the components of a world language and of the study skills necessary to learn a world language. As students begin to develop proficiency skills in listening, speaking, reading, and writing, they engage in active practice in real-life situations and in a variety of cultural contexts.

##### FRENCH LEVEL II 5120 1 Credit

*Grades 9-12*  
*Successful completion of prior level*

Students continue to develop skills in listening, speaking, reading, and writing and to engage in active practice in real-life situations with the goal of increased proficiency in the language. Cultural study of the areas of the world where the language is spoken is expanded.

##### FRENCH LEVEL III 5130 1 Credit

*Grades 9-12*  
*Successful completion of prior level*

Students complete their study of basic grammar and vocabulary and continue to learn to communicate in real-life situations with increasing precision and accuracy. Culture is woven into this course as students explore the use of the language in a wide range of cultural contexts.

##### FRENCH LEVEL IV 5140 1 Credit

*Grades 10-12*  
*Successful completion of prior level*

Students will use the language to engage in a variety of activities which focus on the production of more advanced and precise language in real-world situations. Students will make oral and written presentations in the target language on a variety of more complex social and cultural topics. Immersion strategies will be utilized and students will be expected to use the target language on a daily basis in everyday classroom conversation.

#### GERMAN

##### GERMAN LEVEL I 5210 1 Credit

*Grades 8-12*

Students gain an understanding of the components of a world language and of the study skills necessary to learn a world language. As students begin to develop proficiency skills in listening, speaking, reading, and writing, they engage in active practice in real-life situations and in a variety of cultural contexts.

##### GERMAN LEVEL II 5220 1 Credit

*Grades 9-12*  
*Successful completion of prior level*

Students continue to develop skills in listening, speaking, reading, and writing and to engage in active practice in real-life situations with the goal of increased proficiency in the language. Cultural study of the areas of the world where the language is spoken is expanded.

**GERMAN LEVEL III**  
**Grades 9-12**  
**Successful completion of prior level**

**5230**  
**1 Credit**

Students complete their study of basic grammar and vocabulary and continue to learn to communicate in real-life situations with increasing precision and accuracy. Culture is woven into this course as students explore the use of the language in a wide range of cultural contexts.

**GERMAN IV**  
**Grades 10-12**  
**Successful completion of prior level**

**5240**  
**1 Credit**

Students use the language to engage in a variety of activities which focus on the production of more advanced and precise language in real-world situations. Students will make oral and written presentations in the target language on a variety of more complex social and cultural topics. Immersion strategies will be utilized and students will be expected to use the target language on a daily basis in everyday classroom conversation.

**LATIN**

**LATIN I**  
**Grades 8-12**

**5310**  
**1 Credit**

Students are introduced to the basic vocabulary and grammar system of the language. Roman life, history, mythology, and English derivations are integral parts of the course.

**LATIN II**  
**Grades 9-12**  
**Successful completion of prior level**

**5320**  
**1 Credit**

Students continue to study vocabulary, grammar, Roman culture, and etymology. A major objective is to have students successfully read and interpret increasingly difficult Latin passages.

**LATIN III**  
**Grades 9-12**  
**Successful completion of prior level**

**5330**  
**1 Credit**

Students complete the study of basic Latin grammar to include vocabulary, grammar, and etymology. Students continue to build their knowledge of Roman culture and improve their Latin reading skills through a variety of selections from classical authors.

**LATIN IV**  
**Grades 10-12**  
**Successful completion of prior level**

**5340**  
**1 Credit**

Students are introduced to a variety of Latin literature. Throughout the course students continue to develop skills learned in levels 1-3.  
**Schools offering course: CFHS, NSHS, and SHS**

**SPANISH**

**SPANISH LEVEL I**  
**Grades 8-12**

**5510**  
**1 Credit**

Students gain an understanding of the components of a world language and of the study skills necessary to learn a world language. As students begin to develop proficiency skills in listening, speaking, reading, and writing, they engage in active practice in real-life situations and in a variety of cultural contexts.

**SPANISH LEVEL II**  
**Grades 9-12**  
**Successful completion of prior level**

**5520**  
**1 Credit**

Students continue to develop skills in listening, speaking, reading, and writing and to engage in active practice in real-life situations with the goal of increased proficiency in the language. Cultural study of the areas of the world where the language is spoken is expanded.

**SPANISH LEVEL III**  
**Grades 9-12**  
**Successful completion of prior level**

**5530**  
**1 Credit**

Students complete their study of basic grammar and vocabulary and continue to learn to communicate in real-life situations with increasing precision and accuracy. Culture is woven into this course as students explore the use of the language in a wide range of cultural contexts.

**SPANISH LEVEL IV**  
**Grades 10-12**  
**Successful completion of prior level**

**5540**  
**1 Credit**

Students use the language to engage in a variety of activities which focus on the production of more advanced and precise language in real-world situations. Students will make oral and written presentations in the target language on a variety of more complex social and cultural topics. Immersion strategies will be utilized and students will be expected to use the target language on a daily basis in everyday classroom conversation.

**SPANISH FOR FLUENT SPEAKERS I**  
**Grades 9, 10, 11, or 12**

**5511**  
**1 Credit**

This course is intended for heritage and native speakers of Spanish and will be taught primarily in Spanish. The goal of the course is to provide students who have grown up hearing and speaking Spanish the opportunity to develop and practice their oral and written communication skills. Students will study Hispanic culture and history in order to strengthen identity and build a sense of community among the schools' Hispanic population.

**Note: Students will take an assessment to ensure proper placement according to prior knowledge and study of Spanish.**



**SPANISH FOR FLUENT SPEAKERS II**  
**Grades 10, 11, or 12**

**5521**  
**1 Credit**

This course offers a second level of formal study for Spanish-speaking students. There will be a focus on the instruction of advanced Spanish literacy skills. Students will learn more about their language and cultural heritage while focusing on grammar, reading, writing, vocabulary development, and participate in consciousness-raising activities about Spanish language and identity.

Note: Students will take an assessment to ensure proper placement according to prior knowledge and study of Spanish.

**AP COURSE SEQUENCE**

**Schools offering course: CFHS, NSHS, SHS**

**AP FRENCH** **5170**  
**Grades 11-12** **1 Credit#**  
**Successful completion of level 4**

AP French is an advanced, sequential course designed to develop proficiency in the language for highly motivated students. Students will be expected to master all of the course objectives in a rigorous and accelerated manner. The course is conducted primarily in the target language and emphasizes communication through the use of authentic materials. Students are encouraged to take the AP Exam. This course is dependent on student enrollment.

**AP GERMAN** **5270**  
**Grades 11-12** **1 Credit#**  
**Successful completion of level 4**

AP German is an advanced, sequential course designed to develop proficiency in the language for highly motivated students. Students will be expected to master all of the course objectives in a rigorous and accelerated manner. The course is conducted in the target language and emphasizes communication through the use of authentic materials. Students are encouraged to take the AP Exam. This course is dependent on student enrollment.

**AP LATIN** **5370**  
**Grades 11-12** **1 Credit#**  
**Successful completion of level 4**

AP Latin is an advanced, sequential course that includes an in-depth study of the texts prescribed by the College Board. Students are encouraged to take the AP Exam. This course is dependent on student enrollment.

**AP SPANISH** **5570**  
**Grades 11-12** **1 Credit#**  
**Successful completion of level 4**

AP Spanish is an advanced, sequential course designed to develop proficiency in the language for highly motivated students. Students will be expected to master all of the course objectives in a rigorous and accelerated manner. The course is conducted in the target language and emphasizes communication through the use of authentic materials. Students are encouraged to take the AP Exam. This course is dependent on student enrollment.

**IB COURSE SEQUENCE**

**The students will be prepared and are encouraged to take the year-end IB examination for possible college credit.**

**Schools offering these courses: BPHS and MVHS**

**IB SPANISH B IV** **IB5542**  
**IB FRENCH B IV** **IB5142**  
**IB GERMAN B IV** **IB5242**  
**Grades 10 or 11** **1 Credit per Course#**  
**Recommended Background: "B" or higher in three sequential levels of the target language**

This course is the first year of a two-year advanced sequence that is designed to strengthen fluency and proficiency in both oral and written world languages. The aim is for students to be able to speak the language with sufficient accuracy and fluency to participate in formal and informal conversations with ease. The course includes an in-depth study of various authentic texts and media on issue-related themes. Through oral presentation, individual and group projects, and written assignments, self-expression will be encouraged. The course will be conducted primarily in the target language.

**IB SPANISH B V (SL)** **IB5552**  
**IB FRENCH B V (SL)** **IB5152**  
**IB GERMAN B V (SL)** **IB5252**  
**Grades 11 or 12** **1 Credit per Course#**  
**Recommended Background: "C" or higher in previous IB target language B course**

This course is the second year of a two-year advanced sequence that is designed to strengthen fluency and proficiency in both oral and written world languages. Students must earn a "C" or higher in year one of the course sequence to continue on to year two. The aim is for students to be able to speak the language with sufficient accuracy and fluency to participate in formal and informal conversations with ease. The course includes an in-depth study of various authentic texts and media on issue-oriented themes. Through oral presentation, individual and group projects, and written assignments, self-expression will be encouraged. The course will be conducted primarily in the target language.

**IB SPANISH B V (HL)** **IB5562**  
**IB FRENCH B V (HL)** **IB5162**  
**IB GERMAN B V (HL)** **IB5262**  
**Grade 12** **1 Credit per Course#**  
**Recommended Background: "B+" or higher in previous IB target language B course and Teacher Recommendation**

This course is the second year of a two-year advanced sequence that is designed to strengthen fluency and proficiency in both oral and written world languages. Students must earn a "B+" or higher in the previous IB world language course and obtain teacher recommendation. The aim is for students to be able to speak the language with sufficient accuracy and fluency to participate in formal and informal conversations with ease. The course includes an in-depth study of various authentic texts and media. Students will read several pieces of literature as part of this course. Written tasks will be based on the literature read. Through oral presentation, individual and group projects, and written assignments, self-expression will be encouraged.

English	<b>IB LATIN (SL)</b>	<b>IB5340 &amp; IB5350</b>
	<b>Grades 11 &amp; 12</b>	<b>1 Credit per Year#</b>
	<b>Recommended Background:</b> <i>“B” or higher in three sequential levels of Latin courses for IB year one. “C” or higher in IB year one to go on to IB year two.</i>	

History/SS	In this two-year course, selected passages from prescribed authors and topics in Latin will be read. Students must earn a “C” or higher in IB year one to go on to IB year two. Written assessments will include externally assessed translations of particular passages demonstrating an understanding of the author’s intent and style, as well as student-chosen topics that reflect an awareness of context and connections within and with other literature and cultures.

Math	<b>IB SPANISH A (SL)</b>	<b>IB5541 &amp; IB5551</b>
	<b>Grades 11 &amp; 12</b>	<b>1 Credit per Year#</b>
	<b>Required Background:</b> <i>Students will take an assessment to ensure proper placement according to prior knowledge and study of Spanish. A recommendation form from the students 10th grade English teacher will also be required.</i>	

Science	This is a two-year intensive study of language and literature in Spanish, designed for students who have achieved native-level fluency in speaking, reading, and writing Spanish. Over these two years, students engage in close reading of literary texts, focusing on the relationship between literature and broader societal issues while analyzing the rich complexities and intricacies of the works. They explore how language develops in specific cultural contexts, and how it impacts the world and our understanding of world issues. They also closely examine the ways language is used in the media. This course prepares students for the standard level IB Spanish A Language and Literature internal assessments exam.

**Course is dependent on enrollment**

FPA	
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HPE	
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ESOL	
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Add'l Credits	
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CTE	
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## FINE AND PERFORMING ARTS

These courses count toward the “Fine and Practical Arts” graduation credit. All courses may not be offered at all schools due to enrollment and availability.

The Fine and Performing Arts programs provide students with a sequential, comprehensive curriculum in the arts. These courses teach students the skills and concepts needed for success in the classroom as well as practical application in the real world. The arts help students learn to creatively solve problems, make decisions, build self-confidence, and develop informed perceptions, while exploring a means for self-expression. Emphasis is placed on the artistic process including performing, presenting, producing, responding, and creating. Students gain an appreciation and awareness of different cultures and styles throughout history.

### VISUAL ART

#### GENERAL COURSE SEQUENCE

##### **ART FOUNDATION** **9120** **Grades 9-12** **1 Credit**

In this foundation course, emphasis is placed on the elements and principles of design. Students use the elements and principles to demonstrate their understanding of art concepts through a variety of media. Drawing, painting, graphics, and 3-D activities comprise the curriculum with an emphasis on design and composition in each area.

##### **INTERMEDIATE ART** **9130** **Grades 10-12** **1 Credit** *Successful completion of Art Foundation*

In this intermediate course, students continue to pursue and perfect their skills in depth with emphasis on individual problem solving. New skills and techniques are introduced and students are encouraged to begin to develop a portfolio for review, display, and assessment.

##### **HONORS INTERMEDIATE ART** **9130H** **Grades 10-12** **1 Credit** *Successful completion of Art Foundation, instructor's recommendation; identified or eligible for identification as gifted in visual arts or portfolio review by high school staff*

Students are provided with the opportunity to pursue advanced visual arts topics and nurture strengths in visual communication in order to prepare for AP or IB art courses. Honors Art II is designed to stimulate higher level and complex thinking skills, which are used to solve visual problems. The individual portfolio is used to determine the students' strengths and needs and to assist in the development of individualized learning opportunities.

Schools offering course: NSHS, SHS

##### **ART III: 2-D DESIGN** **9194** **Grades 11-12** **1 Credit** *Successful completion of Intermediate Art or teacher recommendation*

In 2-D design, students develop skills in a variety of two-dimensional media. The course refines established skills through the use of these media and places high emphasis on composition through organization of the elements of art and use of the principles of design. A variety of media are utilized which could include drawing, painting, printmaking, graphic design, typography, collage, and photography. Students document their growth through the construction of a portfolio (traditional or digital).

##### **ART III: 3-D DESIGN** **9196** **Grades 11-12** **1 Credit** *Successful completion of Intermediate Art or teacher recommendation*

3-D design is an advanced art course designed for students with an interest in creating three-dimensional works of art. The student develops personal style in approach to media as it relates to sculptural forms. The focus of this course is on pre-visualization, process, and production of 3-D forms. Students explore a variety of 3-D materials to solve sculptural problems through the construction methods of: fabrication, assemblage, carving, casting, and modeling. Students document their growth through the construction of a portfolio (traditional or digital).

##### **ART IV** **9145** **Grades 11-12** **1 Credit** *Successful completion of Art III*

Art IV is a course designed to increase and develop skills in selected subject areas for the visually mature and advanced art student. Students develop personal styles in approach and media and are encouraged to experiment creatively with materials and techniques. Those students applying for advanced studies maintain and present a progressive portfolio

##### **ART HISTORY (NON-STUDIO ELECTIVE)** **9170** **Grades 10-12** **1 Credit**

This course is designed for students interested in learning to understand, evaluate, and appreciate art and its history in a non-studio setting. A broad range of artistic styles, medias, and ideas from the past and present are used to examine the relationship and meaningful contribution of art to society. Students view significant artworks from around the world through readings, research, slides, videos, and museum visits, while also participating in course discussions, visual presentations, research, and problem solving. Writing skills are important in the description, analysis, and comparison of these works. This course complements courses in the humanities, providing multicultural and interdisciplinary connections.

**PHOTOGRAPHY & GRAPHIC DESIGN I****Grades 9-12****9190****1 Credit****Successful Completion of Art Foundation or teacher recommendation**

This course allows students to think creatively and solve visual problems while using technology to create expressive artworks. Students explore and practice standard black and white photographic processes through the use of cameras, films, lighting effects, and the application of basic darkroom techniques. They are introduced to digital photographic processes and develop proficiency in the use of computers, scanners, and digital cameras for art making. Use of Adobe Creative Suite in the areas of layout design, graphic design, and digital imaging is also taught, along with the history of photography. The development of a beginning portfolio that showcases meaningful designs and photographs is a part of this course.

**Note: Students are required to have access to a digital camera of 8mp or more, a film camera, and purchase necessary film and photographic paper for the year.**

**Schools offering course: SHS**

**PHOTOGRAPHY & GRAPHIC DESIGN II****Grades 10-12****9191****1 Credit****Successful Completion of Photography & Graphic Design I**

This course expands knowledge on the study of black and white photography, alternative processes, and the digital process. Students apply an in-depth understanding of equipment and artistic practices to solve complex visual problems within the areas of publication design, multimedia presentations, graphic design, and digital imaging. Working with others to design, package, and promote a publication that emphasizes strong photography, design, and typography is an important element in this course. Students also learn to critique and evaluate portfolios that demonstrate a high quality of craftsmanship and content in both digital and traditional media.

**Note: Students are required to have access to a digital camera of 8mp or more, a film camera, and purchase necessary film and photographic paper for the year.**

**Schools offering course: SHS**

**PHOTOGRAPHY & GRAPHIC DESIGN III****Grades 11-12****9192****1 Credit****Successful Completion of Photography & Graphic Design II**

This course engages students in the advanced study of photographic and technology-based design processes while developing the approach and discipline of a working artist. Students expand their capability in the application of technology to craft expressive original art and generate visual solutions to objective-based problems by using a variety of media and creative thinking skills. A final required portfolio, which shows evidence of technical proficiency, quality, and experience, demonstrates students' commitment to the communication of ideas through digital and photographic media. Students are asked to apply professional exhibition techniques to display personal work.

**Note: Students are required to have access to a digital camera of 8mp or more, a film camera, and purchase necessary film and photographic paper for the year.**

**Schools offering course: SHS**

**MUSIC**

**Note: Ensemble courses (band, chorus, and orchestra) are performance-based courses that involve participation in concerts and other performances and rehearsals outside of class time. There is a requisite uniform fee for students in these programs.**

**BAND****CONCERT BAND****Grades 9-12****9232****1 Credit****Recommended Background: Previous band experience at the middle school level required**

Emphasis in this course is on mastering the skills necessary to meet the intermediate level for the performance of Grade III-IV band literature. Students participate in Virginia Band and Orchestra Directors Association (VBODA) sponsored events and All-County Band auditions. Concerts of traditional and contemporary band works are prepared and performed. Small ensemble and solo work as well as music theory and history are components of this course. Students are expected to practice an average of 30 minutes per day.

**SYMPHONIC BAND****Grades 9-12****9233****1 Credit****Recommended Background: One or more years of previous band experience; by audition**

Emphasis in this course is on mastering the skills necessary to meet the advanced level for the performance of Grade IV-V band literature. Students participate in Virginia Band and Orchestra Directors Association (VBODA) sponsored events and All-County Band auditions. Concerts of traditional and contemporary band works are prepared and performed. Small ensemble and solo work as well as music theory and history are components of this course. Students are expected to practice an average of 30 minutes per day.

**PERCUSSION ENSEMBLE****Grades 9-12****9250****1 Credit****Recommended Background: Previous band experience is required**

This course is designed to meet the unique needs of the percussion student at the high school level. Students master the techniques required for playing the full spectrum of percussion equipment including drums, mallet instruments, timpani, and the various hand-held "trap" instruments. Special emphasis is placed on the Percussive Arts Society list of 40 rudiments, keyboard proficiency, note and rhythm reading skills, music theory, music history, ear training, and sight-reading. Students are expected to practice a minimum of 30 minutes per day.



**WIND ENSEMBLE****Grades 9-12****By audition only****9234  
1 Credit**

This course functions at the artist level in accordance with the Virginia Standards of Learning. Emphasis in this course is on traditional and contemporary works for concert band and wind ensemble at the Grade V-VI level. Students continue their participation in Virginia Band and Orchestra Directors Association (VBODA) sponsored events and All-County Band auditions. Small ensemble and solo work as well as scales, etudes, music theory, ear training, sight-singing/reading, and music history are components of this course. The course is based on the size of a traditional Wind Ensemble and is limited in size to the instrumentation needs of the group. This course is for students who are serious about the study of instrumental music. Private lessons, while not required, are strongly encouraged for members of this ensemble. Students are expected to practice 30 minutes per day.

**JAZZ ENSEMBLE****Grades 10-12****Recommended Background: One or more years of high school band experience; by audition****9297  
1 Credit**

An advanced-level course, emphasis is on performance techniques unique to jazz music and the history of jazz through the study of traditional and contemporary works. Students participate in Virginia Band and Orchestra Directors Association (VBODA) sponsored events. Some emphasis is given to music theory as it relates to improvisation. Students are involved in solo work and small ensembles. This course is based on the traditional size of a jazz band, or "Big Band", and is limited in size to the instrumentation needs of the group. Private lessons, while not required, are strongly encouraged for members of this ensemble.

**JAZZ WORKSHOP****Grades 10-12****Recommended Background: One or more years of high school band experience; by audition****9296  
1 Credit**

Jazz workshop is a theory-based lecture/lab that explores compositional techniques and their application in improvisation and music literature based in an improvisatory tradition. Compositional style is approached through aural theory, written theory, music history, and technical development of their individual instrument. Students study song forms, motivic development, phrase structure, chord construction, and voice leading. These compositional elements will be applied to important historical and stylistic musical vehicles that may include: Blues, Swing, Bebop, Modal, and Funk/Fusion. This course requires students to perform scales, scale patterns, memorized phrases and melodies, and improvised melodies over given chord progressions and song forms. Students are responsible for attending one performance per semester outside of the normal school day.

**Schools offering course: CFHS****CHORUS****Chorus directors may place students in specially-designed and appropriate sections of chorus.****VOCAL ENSEMBLE****Grades 9-12****9280  
1 Credit**

This course is open to all interested students in grades 9-12 whose voices are within the tenor-bass range. It covers Levels 1 and 2 of the Stafford County Choral Music curriculum.

**TREBLE CHORUS****Grades 9-12****9260  
1 Credit**

This course is open to all interested students in grades 9-12 whose voices are within the treble range. It covers Levels 1 and 2 of the Stafford County Choral Music curriculum.

**CHORALE****Grades 9-12****Auditions may be required****9285  
1 Credit**

This course is a choir open to students in grades 9-12. The course covers Levels 2 and 3 of the Stafford County Choral Music curriculum.

**MADRIGALS****Grades 10-12****By audition only****9289  
1 Credit**

This course is an auditioned choir that is limited to a set number of singers per voice part. The course covers Levels 2, 3, and 4 of the Stafford County Choral Music curriculum.

**JAZZ CHOIR****Grades 9-12****Auditions may be required****9290  
1 Credit**

This course is a performance choir that focuses on the performance of Jazz, show music, and contemporary literature. This choir may be limited to a set number of singers per voice part. The course covers Levels 2, 3, and 4 of the Stafford County Choral Music curriculum.

**CHAMBER CHOIR****Grades 10-12****By audition only****9292  
1 Credit**

This course is an auditioned choir that is limited to a set number of singers per voice part. The course covers Levels 2, 3, and 4 of the Stafford County Choral Music curriculum.

**ORCHESTRA**

**CONCERT ORCHESTRA** 9237  
**Grades 9-12** 1 Credit  
**Recommended Background:** Previous orchestra experience at the middle school level required

In this course, emphasis is on mastering the skills necessary for the performance of Grade III-IV string orchestra literature. Students participate in Virginia Band and Orchestra Directors Association (VBODA) sponsored events and All-County Orchestra auditions. Concerts of traditional and contemporary string orchestra works are prepared and performed. Small ensemble and solo work as well as music theory and history are components of this course. Students are expected to practice an average of 30 minutes per day.

**SYMPHONIC ORCHESTRA** 9238  
**Grades 9-12** 1 Credit  
**Recommended Background:** One or more years of previous orchestra experience; by audition

In this course, emphasis is on mastering the skills necessary for the performance of Grade IV-V string orchestra literature. Students participate in Virginia Band and Orchestra Directors Association (VBODA) sponsored events and All-County Orchestra auditions. Concerts of traditional and contemporary string orchestra works are prepared and performed. Small ensemble and solo work as well as music theory and history are components of this course. Students are expected to practice an average of 30 minutes per day.

**CHAMBER SINFONIA** 9239  
**Grades 10-12** 1 Credit  
**By audition only**

This is an advanced-level course functioning at the artist level in accordance with the Virginia Standards of Learning. Emphasis is on traditional and contemporary works for string orchestra at the Grade IV-VI level. Students continue their participation in Virginia Band and Orchestra Directors Association (VBODA) sponsored events and All-County auditions. Small ensemble and solo work as well as scales, etudes, music theory, ear training, sight-singing/reading, and music history are components of this course. The course is based on the size of a traditional Chamber Orchestra and is limited in size to the instrumentation needs of the group. This course is for students who are serious about the study of instrumental music. Private lessons, while not required, are strongly encouraged for members of this ensemble. Students are expected to practice an average of 30 minutes per day.

**GENERAL COURSES FOR MUSIC**

**MUSIC THEORY** 9225  
**Grades 10-12** 1 Credit  
**Recommended Background:** Previous music training required. Students should have a fundamental understanding of music notation.

The course develops a student's ability to recognize, understand and describe basic elements of music literacy and composition. A knowledge of structural, technical, and historical elements of music is acquired through the study of music from varied periods and cultures. Aural, analytical, and composition skills and techniques will be presented through listening and written exercises. Student theorists will read, notate, compose, and analyze music while

engaging in the creative process through performance, written projects, and exercises.

**GUITAR I** 9245  
**Grades 9-12** 1 Credit

This course introduces students to the fundamentals of guitar. Guitar instruction emphasizes basic technique, music reading, progressions, and music theory. Music literature is selected from classical and contemporary repertoire. This course offers a comprehensive study of all musical styles. Guest artists and field trips to performances and/or seminars may also be part of the curriculum.

**Note: Rehearsals and performances may be required of students outside of the school day.**

**Schools offering course: BPHS, CFHS, MVHS, NSHS**

**GUITAR II** 9247  
**Grades 10-12** 1 Credit  
**Successful completion of Guitar I or teacher recommendation**

Students continue to develop their skills on the guitar in this course. Guitar instruction emphasizes intermediate technique, music reading, progressions, and music theory. Music literature is selected from jazz, rock, blues, classical, and contemporary repertoire. Students build a repertoire of solo literature and begin the study of improvisation. Guest artists and field trips to performances and/or seminars may also be part of the curriculum.

**Note: Rehearsals and performances may be required of students outside of the school day.**

**Schools offering course: BPHS, CFHS, MVHS, NSHS**

**MUSIC TECHNOLOGY I** 9214  
**Grades 9-12** 1 Credit

This course develops an understanding of music composition through the use of digital keyboards, MIDI technology, DAW software, and music notation software. Students also develop skills in their creative and technical expression. A portfolio of compositions, arrangements, and recordings representing a variety of styles and compositional situations are developed throughout the course.

**Schools offering course: SHS**

**MUSIC TECHNOLOGY II** 9298  
**Grades 10-12** 1 Credit  
**Successful Completion of Music Technology I or teacher recommendation**

Students develop a deeper understanding of music composition through the use of digital keyboards, MIDI technology, DAW software, and music notation software. Students continue to develop skills their creative and technical expression. A portfolio of compositions, arrangements, and recordings representing a variety of styles and compositional situations is developed throughout the course.

**Schools offering course: SHS**

## THEATRE ARTS

### THEATRE ARTS I

Grades 9-12

1410

1 Credit

In this survey course, students experience dramatic literature and participate in the creative processes of performance and production. Methods of storytelling, play writing, puppetry, and adaptation are used to emphasize skill development and provide theatrical opportunities that allow students to explore areas of personal interest. This is a performance-based course and students are expected to perform in front of an audience of their peers.

### THEATRE ARTS II

Grades 10-12

1420

1 Credit

*Successful Completion of Theatre Arts I*

In this course, students study and respond to a variety of theatre experiences, including dramatic literature, theatrical styles, and historical period. They begin to develop and refine their communicative, collaborative, analytical, interpretive, and problem-solving skills in this performance-based setting.

**Note: Students in this course are highly encouraged to participate in school productions.**

### THEATRE ARTS III

Grades 11-12

1423

1 Credit

*Successful Completion of Theatre Arts II*

Students study theatre and drama as an educational force in this course. They will deepen their artistic abilities through the investigation of acting styles and the process of playwriting, which includes character development, research, dramatic structure, conflict, and resolution.

**Note: Students in this course are highly encouraged to participate in school productions.**

### THEATRE ARTS IV

Grades 11-12 or audition by teacher

1426

1 Credit

*Successful Completion of Theatre Arts III*

This is exclusively a performing and directing course. Advanced skills in performing and directing skills will be refined through research, performance, and evaluation.

**Note: Students in this course are expected to participate in school productions.**

### TECHNICAL THEATRE I

Grades 9-12

1435

1 Credit

This course serves as an introduction to the technical aspects of the theatrical experience. Students explore the various physical needs of theatrical productions, including scenic construction, lighting, sound, costuming, and make up. Smaller projects focus on stage management and production design.

**Note: This is not a performance-based class. This is the backstage work of the theatre.**

### TECHNICAL THEATRE II

Grades 10-12

1448

1 Credit

*Successful Completion of Technical Theatre I*

This course utilizes what students have learned in Technical Theatre I in order to build theatrical productions throughout the year. Students serve as the technical crews to assemble the various technical aspects for two major productions, including scenery, lighting, sound, costuming, and make up. Individual projects focus on stage management and production design.

**Note: Participation in school productions is expected.**

### TECHNICAL THEATRE III

Grades 10-12

1450

1 Credit

*Successful Completion of Technical Theatre II*

This course utilizes what students have learned in Technical Theatre I and II in order to serve as student designers and production managers for theatrical productions throughout the year. These students design and oversee the construction of the scenery, lighting, sound, costumes, and make up for two major productions. Individual projects focus on theatre management and technical direction.

**Note: Participation in school productions is expected.**

## AP COURSES FOR ART

### AP STUDIO ART

Studio Art (Drawing Portfolio)

9150

Studio Art (2-D Design Portfolio)

9148

Studio Art (3-D Design Portfolio)

9149

Grades 11-12

1 Credit#

*Successful Completion of Art III 2-D or 3-D, Art III and teacher recommendation*

AP Art is designed for highly motivated art students who plan to major in art in college. Following a highly prescribed curriculum set by the College Board, students prepare one of three portfolios of artwork (drawing, 2-D design, or 3-D design). Students will be prepared and are encouraged to submit the AP Studio Art portfolio for possible college credit.

**Note: Students enrolled in this course must be willing to work independently and meet portfolio submission deadlines as established by the instructor.**

### AP ART HISTORY (NON-STUDIO ELECTIVE)

Grades 11-12

9151

1 Credit#

*Successful Completion of Art History or teacher recommendation*

This course is designed for students interested in learning to understand, evaluate, and appreciate art and its history in a non-studio setting. A broad range of artistic styles, medias, and ideas from the past and present are used to examine the relationship and meaningful contribution of art to society. Students learn to look at significant works of arts from around the world with intelligence and sensitivity. Through writing, readings, research, visual presentations, and museum visits, students examine the major forums of artistic expression of the past and of distant cultures, as well as those of our own time and environment. Students will be prepared and are encouraged to take the AP exam for possible college credit.

## AP COURSES FOR MUSIC

### AP MUSIC THEORY

9226

Grades 11-12

1 Credit#

*Successful Completion of Music Theory or teacher recommendation*

AP Music Theory develops a student's ability to recognize, understand, and describe the basic elements of music literacy and composition. This is approached by addressing fundamental aural, analytical, and compositional skills using both listening and written exercises. Building on this foundation, the course progresses to include more creative tasks, such as the harmonization of a melody by selecting appropriate chords, composing a musical bass line to provide two-voice counterpoint, or the realization of figured-bass notation. Students will be prepared and are encouraged to take the AP exam for possible college credit.

## IB COURSES FOR FINE AND PERFORMING ARTS

**Note: The students will be prepared and are encouraged to take the year-end IB examination for possible college credit**

**Schools offering these courses: BPHS and MVHS**

### IB VISUAL ARTS (SL)

IB9194

Grades 11 or 12

1 Credit#

*Recommended Background: "B" or higher in Art Foundation and Intermediate Art*

This one-year course is intended for highly motivated students committed to serious study of art. The aim is to provide opportunities to develop the aesthetic, imaginative, and creative faculties as well as train visual, perceptual, and critical awareness of art of various cultures. Students create a portfolio that demonstrates intensive concentration in studio work and research in preparation for the external assessment.

### IB VISUAL ARTS (HL)

IB9195

Grades 12

1 Credit#

*Recommended Background: "C" or higher in IB year one to go on to IB year two.*

This is the second year of a two-year sequence for IB Visual Arts (HL) intended for highly motivated students committed to serious study of art. The aim of the course is to develop the aesthetic, imaginative, and creative faculties as well as train visual, perceptual, and critical awareness of art of various cultures. Students create a portfolio that demonstrates intensive concentration in studio work and research in preparation for the external assessment.

### IB THEATRE ARTS (SL or HL)

IB1432 & IB1433

Grade 11-12

1 Credit per Course#

*Recommended Background: "B" or higher in Theatre Arts I, Theatre Arts II, and Theatre Arts III courses for IB year one. "C" or higher in IB year one to go on to IB year two.*

In this two-year course, students engage in the in-depth study of the nature, theories, and processes of theatre and theatrical production through time and across cultures. Practical and theoretical applications are components of this course. Students will collaborate with peers to create original theatre and staging, and will conduct significant research into and written analysis of the theory of theatre, including specific theorists and practical applications of theory. HL students also explore and perform a solo

theatre piece based on theory.

**Note: Students in this course are encouraged to participate in school productions.**

### IB MUSIC (SL or HL)

IB9294 & IB9295

Grades 11-12

1 Credit per Course#

*Recommended Background: "B" or higher in previous music courses for IB year one. "C" or higher in IB year one to go on to IB year two and/or music teacher recommendation. Completion in Music Theory course preferred. Students must be concurrently enrolled in a performance class.*

These two-year courses include the study of all music, including western and world music, and explore the material needed in an entry-level college music theory, appreciation, or history course. Students study examples of representative scores from each period. Students write musical compositions using music notation software to clarify musical concepts taught. A solo or group performance recording is a requirement of this course. This course prepares students for the standard and/or higher level IB Music Exam, which includes listening, written, performance, and composition (for HL) components.



## HEALTH, PHYSICAL EDUCATION, AND DRIVER EDUCATION

**Physical Education** is an academic discipline that involves the study of human movement and its impact on health and quality of life. Physical Education provides all students access to standards-based instruction that promotes health literacy and the motivation to engage in the health-enhancing physical activity needed to achieve and maintain a balanced healthy life.

**Health Education** increases Health Literacy, helps students understand how to achieve and maintain a healthy life style, and fosters the motivation, skills, and self-efficacy necessary to make informed and healthy choices, avoid risky behaviors, and build healthy families, relationships, schools and communities.

**Driver Education** programs in Virginia schools focus on safe driving attitudes, skill development, and appropriate responses to hazards. The Commonwealth's standards for Driver Education require extended, supervised practice with a licensed parent or guardian to develop precision in the application of skills and processes to effectively manage risks.

Two (2) Health and Physical Education credits are required for both the Standard and Advanced Studies diplomas and may be obtained in the 9th and 10th grades.

### GENERAL COURSE SEQUENCE

#### HEALTH AND PHYSICAL EDUCATION 9 Grade 9

**7300**  
**1 Credit**

Physical Education instruction is required and emphasizes the participation in lifetime fitness activities and how it relates to personal wellness. Activities include badminton, volleyball, tennis, speed ball, dance, flag football, aerobics, soccer, recreational games, basketball, golf, running, and fitness stations. During the health portion of this course, students will study alcohol, tobacco, and drugs, diseases of the body, mental and emotional health, family life, safety and injury prevention and violence prevention.

#### HEALTH AND PHYSICAL EDUCATION 10 Grade 10

**7400/7405**  
**1 Credit**

Physical Education instruction is required and emphasizes the participation in lifetime fitness activities and how it relates to personal wellness. Activities include archery, badminton, tennis, golf, bowling, speed ball, soccer, volleyball, dance aerobics, basketball, running, and other fitness activities. Classroom Driver's Education is a part of the health requirement. Other health instruction includes family life, wellness, and healthy living component. In addition, "Behind the Wheel" instruction is offered as an optional program if certain age and licensing requirements are met. The "Behind the Wheel" fee for 2018-2019 is \$225.00.

#### STRENGTH AND BODY I Grades 11-12

**7640**  
**1 Credit**

This elective is offered for motivated students seeking daily participation in weight training and cardiovascular fitness. This course will provide the student with the opportunity to design and implement individual fitness routines specific to his or her needs. Participants will gain a working knowledge of muscle groups and the exercises that complement them, along with an understanding of how the human body benefits from cardiovascular activity. The course will be held in the weight room while enjoying a variety of additional fitness-based activities such as plyometrics, speed, and agility drills.

#### STRENGTH AND BODY II Grade 11-12

**7650**  
**1 Credit**

Upon successful completion of Strength and Body I, this elective is offered for motivated students seeking daily participation in weight training and cardiovascular fitness. This course will provide the student with the opportunity to design and implement individual fitness routines specific to his or her needs. Participants will gain a working knowledge of muscle groups and the exercises that complement them, along with an understanding of how the human body benefits from cardiovascular activity. The course will be held in the weight room while enjoying a variety of additional fitness-based activities such as plyometrics, speed, and agility drills.

#### COMPETITIVE TEAM SPORTS Grade 11-12

**7643**  
**1 Credit**

For students interested in coaching team sports at various age levels; and/or students interested in becoming physical education teachers. This course offers a higher level of game play in a controlled setting. Students taking this course will develop strategies for game play, experience conditioning specific to various team sports, and participate in game play in several team sports throughout the year. Sports may include, but are not limited to, football, basketball, volleyball, lacrosse, baseball/softball, floor hockey, soccer, field hockey, team handball, Ultimate Frisbee and tchoukball. In addition, students will participate in the development of tournaments for game play as well as coaching peers for the tournaments. Students may also be required to participate in observation hours of any organized team sport activity in the community.

**COMPETITIVE INDIVIDUAL SPORTS**  
**Grade 11-12****7653**  
**1 Credit**

For students interested in coaching individual sports at various age levels; and/or students interested in becoming physical education teachers. This course offers a higher level of game play in a controlled setting. Students taking this course will develop strategies for competition, experience conditioning specific to various individual sports, and participate in individual sports throughout the year. Sports may include track and field, distance running, golf, tennis, wrestling, gymnastics, badminton, bowling, archery, and disk golf. Students will participate in the development of tournaments for competition as well as coaching peers for these tournaments. Students may also be required to participate in observation hours of any organized individual sport in the community.

**SPORTS MEDICINE I**  
**Grades 11-12****7660**  
**1 Credit****Recommended Background:** *Successful completion of Biology*

This course is a basic introduction into the field of athletic training and sports medicine. Students study the anatomy and physiology of the skeletal and muscular systems, and kinesiology as they relate to the prevention, evaluation and care of athletic injuries. Students learn and practice CPR, emergency medical care for athletes, and taping techniques.

**SPORTS MEDICINE II**  
**Grades 11-12****7662**  
**1 Credit****Required Background:** *Successful completion of Sports Medicine I, completion of an application, and an interview.*

The focus of this course is the application of knowledge and understanding gained in Sports Medicine I. Students will have hands-on experience in preventing, recognizing, evaluating, and providing emergency care for athletic injuries to sports team members under the supervision of a certified athletic trainer. A requirement of this course is that the student must serve as a student assistant of an athletic team for at least one sport season after school.

**Note:** This course requires that students devote time outside the scheduled class period to activities occurring in the evening and weekends. (minimum of 5 hours per week)

**SPORT AND FITNESS FOR LIFE I**  
**Grades 11-12****7510**  
**1 Credit**

This elective course is offered for students seeking a more advanced experience in Physical Education. This course will provide exposure to non-competitive wellness activities, lifetime sports, as well as various competitive individual and team sports. Wellness activities such as Pilates, yoga, resistive fitness activities, and aerobic exercise. Wellness concepts focusing on nutrition education, body composition, personal fitness technologies, and stress management will be included. Students will be expected to participate in individual and group class work regarding class topics.

**SPORT AND FITNESS FOR LIFE II**  
**Grade 12****7610**  
**1 Credit****Successful completion of Sport and Fitness for Life I**

This elective course is offered for students seeking a more advanced experience in Physical Education. This course will provide exposure to non-competitive wellness activities, lifetime sports, as well as various competitive individual and team sports. Wellness activities such as Pilates, yoga, resistive fitness activities, and aerobic exercise. Wellness concepts focusing on nutrition education, body composition, personal fitness technologies, and stress management will be included. Students will be expected to participate in individual and group class work regarding class topics.

## ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL)

Students identified as English Learners (ELs) may take English for Speakers of Other Languages (ESOL) courses. These courses are designed to develop their speaking, listening, reading, and writing skills in English. These courses also serve to develop academic vocabulary for content specific classes.

### Credit Options

- **Sequential Elective Credit**
- **World Language Credit(s): Up to 2 ESOL course credits can count toward World Language credits.**
- **English Language Arts (English 9, 10, or 12): Any ESOL course may count for one of the above required English credits, if not used for elective, sequential elective or World Language Credits.**

**NOTE: All English Learners (ELs) must pass the English 11 course and the corresponding English 11 SOL in order to graduate.**

### ESOL CONCEPTS OF SCIENCE Grades 9-12

**5720  
1 Credit**

This course is designed to develop reading, writing, listening, and speaking skills of Level I or II English Learners. This course prepares students for enrollment in Environmental Science, Earth Science, or Biology while developing academic literacy. Students generally enroll in either Biology or Earth Science the following year.

### ESOL CONCEPTS OF SOCIAL STUDIES Grades 9-12

**5710  
1 Credit**

This course is designed to develop reading, writing, listening, and speaking skills of Level I or II English Learners. This course promotes academic literacy in world history content in preparation for enrollment in World History I or II. Students generally take World History the following year.

### ESOL FOUNDATIONS OF SCIENCE Grades 9-12

**4610  
1 Credit**

This course is based on the standard Earth Science or Biology curriculum. Using English Language Development strategies, students will expand their academic vocabulary and content reading strategies that are essential for success in their concurrently enrolled Earth Science or Biology course.

### ESOL FOUNDATIONS OF SOCIAL STUDIES Grades 9-12

**2997  
1 Credit**

This course is based on the standard World History curriculum. Using English Language Development strategies, students will expand their academic vocabulary and content reading strategies that are essential for success in their concurrently enrolled World History course.

### ESOL ENGLISH FOR ACADEMIC PURPOSES Grades 9-12

**5730  
1 Credit**

This course is designed to develop reading, writing, listening, and speaking skills of Level I or II English Learners. This language development course promotes emerging print literacy while building content knowledge and skills for the language arts standards of learning for English 9. Students enrolled in this course generally take English 9 the following year.

### ESOL READING & WRITING STRATEGIES Grades 9-12

**5731  
1 Credit**

This course is designed for Level II or III English Learners in order to further assist in the acquisition of English Language and to help students be successful in their English Language Arts course. This course should be taken concurrently with English 9, 10, or 11.

### ESOL ALGEBRA READINESS Grades 9-12

**5732  
1 Credit**

This course prepares students for enrollment in Algebra I while developing academic literacy. Students will focus academic vocabulary and math content that are essential for success in Algebra I. Students generally take the Algebra sequence starting the following year.

**ADDITIONAL CREDIT OPPORTUNITIES****AP CAPSTONE COURSES**

*Schools offering course: CFHS, NSHS, SHS*

**AP CAPSTONE – AP SEMINAR**  
**Grades 10-12**

**22110**  
**1 Credit#**

AP Seminar is the first of two courses in the AP Capstone program, and it is designed to further develop inquiry and research skills as applied to topics and issues of global and/or cultural relevance presented by an AP Capstone trained teacher. With this topic or issue as the centerpiece of class discourse, students learn to employ critical thinking skills such as analysis, synthesis, differentiation, and interpretation; students engage in collaborative teamwork and service-learning experiences. Students participating in this program have required tasks that include a team project, an individual presentation, and a written exam. This course may be included in the requirements for academic programs such as, but not limited to, APPX, CGS, and Learn and Serve.

**AP CAPSTONE – AP RESEARCH**  
**Grades 11-12**

**22111**  
**1 Credit#**

AP Research is the second of two courses in the AP Capstone program, and it allows students to put the skills acquired in the AP Seminar course to practice in a Capstone Research Project. The course offers an opportunity for students to explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan and conduct a yearlong mentored, research-based investigation to address a research question. This independent study, executed under the mentorship of an AP Capstone trained teacher, culminates in a scholarly academic thesis which the student defends and articulates his/her position on his/her chosen subject. This course may be included in the requirements for academic programs such as, but not limited to, APPX, CGS, and Learn and Serve.

**INDEPENDENT STUDY AND INTERSHIP PROGRAMS**

High School students can earn additional high school or college credits through a variety of independent study, distance learning, off-site courses, and work-study programs, after an application and review process. Generally, no independent study or alternative credit class can be arranged for classes already in the master course list. These programs work best for students who work well independently or who have a particular vocational interest or ability. For specific information, students should see school counselors. All courses may not be offered at all schools due to enrollment and availability.

**ALL CENTURY INDEPENDENT LEARNERS** **9826**  
**Grades 9-12** **1 Independent Study Credit**  
**(Does not count toward graduation requirements)**

Students may propose a year-long study of a topic of interest, working primarily under the supervision of the Gifted and Secondary Program (GSP) Resource Teacher or certified Learn and Serve Teacher; additional teachers or community mentors may be identified and utilized as resources. To earn credit, students must have their proposal approved, document hours, and must complete

and present a substantive product. Assessment is on a pass/fail basis.

**GIFTED AND SECONDARY PROGRAMS (GSP) INDEPENDENT STUDY** **0115**  
**Grades 11-12** **1 Credit**  
**(Does not count toward graduation requirements)**

Students may propose a year-long study of a topic of interest, working under the supervision of the GSP Resource Teacher and other teacher or community mentors. To earn credit, students must document hours and must complete and present a substantive product. Assessment is on a pass/fail basis.

**CGS ADVANCED RESEARCH AND WRITING** **1519G**  
**Grade 12** **1 Credit**

The CGS Advanced Research and Writing course allows students enrolled in the CGS program to progress from novice to expert through researching topics of their personal interest and passion. Students progress through the levels of development beginning with process where they learn the basics of research, research question development, and presentation. As students' skills improve and growth occurs, the emphasis moves from process to product and presentation. Products are not limited to research papers, but all must include a written research component. At the conclusion of the course, students become independent researchers and focus on the development of college-level research products. During this final step, students are supported by an expert-advisor in the field as they work on their projects, and they present their findings to their expert-advisor, the CGS staff, and the community. Credit for the course is granted in the senior year with successful completion of all components of the course.

**LEARN AND SERVE I** **9828**  
**LEARN AND SERVE II** **9840**  
**Grades 10-12** **1 Credit**

These courses develop an appreciation of the concept of service to the community and develop skills necessary to evaluate the impact of service to others. These courses have discussions with public officials and community leaders. Students are introduced to the concept of service-learning and design individual and group projects as a part of the class curriculum. Service projects will require time outside of the classroom.

**LEADERSHIP** **9097**  
**Grades 9-12** **1 Credit**

An interdisciplinary course designed to introduce students to the tasks, strategies, and skills of effective leadership. Course activities will move students from theory to the practical processes of leadership. Basic concepts essential to personal development and organizational leadership behavior are included. This includes the concepts of: team-building, teamwork, and team leading. In addition, this course provides students with an awareness and understanding of current issues relating to the nature and tasks of collaborative leadership behavior. Students will be asked to identify an issue or problem and will practice leadership by developing and implementing a community project.



## JROTC

### AIR FORCE JROTC-NSHS

#### AIR FORCE MILITARY SCIENCE I Grades 9-12

**AF7913**  
**1 Credit**

This is the basic AS course for all new cadets. It is an aviation history course focusing on the development of flight throughout the centuries. It starts with ancient civilizations, then progresses through time to modern day. The emphasis is on civilian and military contributions to aviation; the development, modernization, and transformation of the Air Force; and a brief astronomical and space exploration history. It is interspersed with concise overviews of the principles of flight to include basic aeronautics, aircraft motion and control, flight power, and rockets. Throughout the course, there are readings, videos, hands on activities, and in-text and student workbook exercises to guide in the reinforcement of the materials. The leadership portion includes heritage, organization, and traditions of the Air Force; individual self-control, citizenship in the United States, and wellness, health and fitness. AS I cadets are welcome to serve as Group Staff trainees.

#### AIR FORCE MILITARY SCIENCE II Grades 10-12

**AF7916**  
**1 Credit**

**Recommended Background:** *Air Force Military Science I*

This advanced course is designated to acquaint the student with the aerospace environment, the human requirements of flight, principles of aircraft flight, and principles of navigation. The course begins with a discussion of the atmosphere and weather. After developing an understanding of the environment, how that environment affects flight is introduced. Discussions include the forces of lift, drag, thrust, and weight. Students also learn basic navigation including map reading, course plotting, and the effects of wind. The portion on the Human Requirements of Flight contains information on human physiology. The leadership portion of the course concentrates on Life Skills and Career Opportunities. Topics include choosing ones path, job searching, financial planning, and career opportunities. AS III cadets serve as trainers in class and are encouraged to serve on Group Staff.

#### AIR FORCE MILITARY SCIENCE III Grades 10-12

**AF7918**  
**1 Credit**

**Recommended Background:** *Air Force Military Science II*

This science course includes up-to-date information in space science and space exploration. The course begins with the interest in astronomy and early ideas of the heavens, through the Renaissance, and on to modern astronomy. It provides an in-depth study of the Earth, Sun, stars, Moon, and solar system, including the terrestrial and the outer planets. It discusses issues critical to travel in the upper atmosphere such as orbits and trajectories, unmanned satellites, and space probes. It investigates the importance of entering space and discusses manned and unmanned space flights, focusing on concepts surrounding spaceflight, space vehicles, launch systems, and space missions. The course covers human aspects of spaceflight, focusing on the human experience in space. It also examines advances in space technology, including robotics in space, the Mars Rover, and commercial uses of space.

#### AIR FORCE MILITARY SCIENCE IV Grades 10-12

**AF7919**  
**1 Credit**

**Recommended Background:** *Air Force Military Science III*

This is a customized course about the world's cultures. The course is specifically created for the US Army, Marine Corps, Navy, and Air Force JROTC programs. It acquaints students to world cultures through the study of world affairs, regional studies, and cultural awareness. The course delves into history, geography, religions, languages, culture, political systems, economics, social issues, environmental concerns, and human rights. It looks at major events and significant figures that have shaped each region. Throughout the course, there are readings, video segments, hands-on activities, other optional activities, technology enrichment, and assessments to guide in the reinforcement of the materials. 21st century skills as defined by the Partnership for 21st Century Skills are integrated into the course. The leadership portion of the course provides exposure to the fundamentals of management.

### ARMY JROTC-CFHS

#### ARMY MILITARY SCIENCE I Grades 9-12

**AR7913**  
**1 Credit**

The first level course engages students in the practice of basic citizenship customs, traditions and in the exploration of opportunities for non-military and military service. The course consists of three units of instruction: Citizenship in Action, Leadership Theory and Application, and Foundation for Success. These modules orient cadets to the purpose of the Army JROTC program, their roles as cadets and the organization of the Department of Defense. Cadet leadership potential is further developed through the application of leadership principles, values, and strategies. Cadets learn to develop and expand their abilities to resolve conflict and prevent violence. This unit helps cadets prepare for life after high school by reinforcing the importance of career and personal financial planning.

#### ARMY MILITARY SCIENCE II Grades 10-12

**AR7916**  
**1 Credit**

**Recommended Background:** *Army Military Science I*

The second level of Military Science builds on the first year of instruction. The curriculum focuses on Wellness, Fitness and First Aid where cadets are provided information and strategies needed to take responsibility for their physical and mental wellness, learn how to assess their level of fitness, develop plans for nutrition and exercise improvement habits, and learn strategies to control stress. This unit also helps cadets to make responsible choices about substance use and measures and develop proficiency in providing basic first aid. In Geography, Map Skills, and Environmental Awareness, cadets learn map reading and land navigational skills and develop global awareness as they compare physical, political, economic and cultural elements of continents, regions, and countries.

**ARMY MILITARY SCIENCE III****Grades 11-12****Recommended Background:** *Army Military Science II***AR7918****1 Credit**

The third level of Military Science instruction incorporates Citizenship in American History and Government, while continuing to expand the cadet's knowledge acquired in previous units. The curriculum builds on the basic skills and interest for participation in civic and political life. Cadets actively engage in the curriculum to explore the origins, structure, rights, and responsibilities of the American constitutional government. Cadets learn to apply problem solving strategies to current political and social issues. In addition, cadets are placed in positions of greater responsibility within the chain of command and staff to manage administrative and leadership responsibilities.

**ARMY MILITARY SCIENCE IV****Grade 12****Recommended Background:** *Army Military Science III***AR7919****1 Credit**

The fourth level of Military Science provides an opportunity for cadets to apply the knowledge learned during the previous three years of instruction. Cadets serve as assistant instructors for selected subjects. Fourth year cadets are responsible for the daily cadet Administration of the Corps of Cadets and perform in command and staff positions. Key components of the fourth year of instruction are development and implementation of Service Learning and Community Service initiatives within the secondary school environment and surrounding communities. Level IV cadet leaders serve lead planners for the annual Military Ball, Awards Ceremony, major field trips and Co-Curricular Team competitions.

**MARINE CORPS JROTC-MVHS****MARINE CORPS MILITARY SCIENCE I****Grades 9-11****MC7913****1 Credit**

Students are introduced to the JROTC curriculum, and basic U.S. citizenship rights and responsibilities are established and reinforced. Students learn leadership, history, communication techniques, disciplined study habits, management skills, first aid, drug abuse prevention, map reading, physical fitness, and workplace readiness skills. Military customs and courtesies, proper uniform wear, and personal appearance guidelines are followed within the leadership lab, drill, and military ceremonies.

**MARINE CORPS MILITARY SCIENCE II****Grades 10-12****Recommended Background:** *Marine Corps Military Science I***MC7916****1 Credit**

This second course builds on the general introduction provided in Marine Corps I, to further develop the traits of citizenship and leadership in cadets, introduce cadets to technical areas of marine science. The course provides ongoing history, communication techniques, disciplined study habits, management skills, first aid, drug abuse prevention, map reading, physical fitness, and workplace readiness skills.

**MARINE CORPS MILITARY SCIENCE III****Grades 11-12****Recommended Background:** *Marine Corps Military Science II***MC7918****1 Credit**

This third course broadens the understanding of students in the operative principles of military leadership, the concept and significance of teamwork, the intrinsic value of good order and discipline in the accomplishment of objectives, the fundamentals of American democracy, and to expand their understanding of marine academic subjects. The course provides ongoing instruction in leadership and discipline, Military Justice, International Law and the Sea, National Strategy, Maneuvering Board, Challenges of Future, Marine Research, Electricity, and Marine Electronics.

**MARINE CORPS MILITARY SCIENCE IV****Grades 12****Recommended Background:** *Marine Corps Military Science III***MC7919****1 Credit**

This fourth course focuses solely on practical leadership. The intent is to assist the senior in understanding leadership and improving their leadership skills by putting them in positions of leadership, under supervision, then helping them analyze the reasons for their varying degrees of success through the year. Classroom activities include seminars, reading assignments, classroom presentations, and practical work with younger cadets. The course curriculum includes instruction in theoretical and applied aspects of leadership, training, and evaluation of performance. Students will become aware of the techniques used to create motivation, develop goals and activities for a work group, and the proper ways to set a leadership example. Cadets will also apply these principles when dealing with younger cadets in the areas of military drill and inspections, athletic events, and in other school activities.

**NAVY JROTC-BPHS & SHS****NAVY MILITARY SCIENCE I****Grades 9-11****NA7913****1 Credit**

This first course introduces students to the meaning of citizenship, the elements of leadership, and the value of scholarship in attaining life goals; engenders a sound appreciation for the heritage and traditions of America, with recognition that the historically significant role of sea power will be important in America's future; and develops in each cadet a growing sense of pride in his/her organization, associates, and self. These elements are pursued at the fundamental level. The course includes Maritime Geography, Sea Power, Introductions to Navigation, Health Education, First Aid, and Drug, Alcohol, and Tobacco Abuse Prevention.

**NAVY MILITARY SCIENCE II****Grades 10-12****Recommended Background:** *Navy Military Science I***NA7916****1 Credit**

This second course builds on the general introduction provided in Naval Science 1, to further develop the traits of citizenship and leadership in cadets, introduce cadets to technical areas of naval science, and engender a deeper awareness of the vital importance of the world oceans to the continued well-being of the United States. The course provides ongoing instruction in leadership theory, Naval Orientation, Citizenship, Maritime History, and Nautical Sciences including Oceanography, Meteorology, Astronomy and Physical Science.

**NAVY MILITARY SCIENCE III** **NA7918**  
**Grades 11-12** **1 Credit**  
*Recommended Background: Navy Military Science II*

This third course broadens the understanding of students in the operative principles of military leadership, the concept and significance of teamwork, the intrinsic value of good order and discipline in the accomplishment of objectives, the fundamentals of American democracy, and to expand their understanding of naval academic subjects. The course provides ongoing instruction in leadership and discipline, Military Justice, International Law and the Sea, National Strategy, Maneuvering Board, Challenges of Future, Navy Research, Electricity, and Naval Electronics.

**NAVY MILITARY SCIENCE IV** **NA7919**  
**Grades 12** **1 Credit**  
*Recommended Background: Navy Military Science III*

This fourth course focuses solely on practical leadership. The intent is to assist the senior in understanding leadership and improving their leadership skills by putting them in positions of leadership, under supervision, then helping them analyze the reasons for their varying degrees of success through the year. Classroom activities include seminars, reading assignments, classroom presentations, and practical work with younger cadets. The course curriculum includes instruction in theoretical and applied aspects of leadership, training, and evaluation of performance. Students will become aware of the techniques used to create motivation, develop goals and activities for a work group, and the proper ways to set a leadership example. Cadets will also apply these principles when dealing with younger cadets in the areas of military drill and inspections, athletic events, and in other school activities.

**CAREER AND TECHNICAL EDUCATION****CTE INDUSTRY CREDENTIAL REQUIREMENT FOR STANDARD DIPLOMA:**

All students receiving a Standard Diploma are required to earn a career and technical education credential that has been approved by the Virginia 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 skills assessment.

The chart below shows which CTE Industry Credential is offered in each CTE course offered in Stafford County Public Schools. All of these assessments are on the state-approved list of industry credentials.

SCPS CTE Course Title	Course	CTE Industry Credential Offered
Accounting	6320	CTECS Workplace Readiness
Advanced Accounting	6321	CTECS Workplace Readiness
Advanced Computer Information Systems	6613	MOS or CTECS Workplace Readiness
Advanced Design, Multimedia, and Web Technologies	6631	MOS student choice
Advanced Fashion Marketing	8145	CTECS Workplace Readiness
Advanced Manufacturing Systems II	8427	CTECS Workplace Readiness
Advanced Marketing	8130	CTECS Workplace Readiness
Advanced Programming	6641	CTECS Workplace Readiness
Advanced Sports, Entertainment and Recreational Marketing	8177	CTECS Workplace Readiness
Aerospace Engineering (PLTW)	8428	PLTW end of course test
Architectural Drawing and Design	8437	CTECS Workplace Readiness
Automotive Body Technology I	8676	CTECS Workplace Readiness
Automotive Body Technology II	8677	ASE
Automotive Body Technology III	8678	ASE
Automotive Technology I	8502	ASE or CTECS Workplace Readiness
Automotive Technology II	8507	ASE or CTECS Workplace Readiness
Automotive Technology III	8508	ASE or CTECS Workplace Readiness
Barbering I	8743	CTECS Workplace Readiness
Barbering II	8744	State License Exam
Biomedical Innovations (PLTW)	8382	PLTW end of course test
Business Law	6131	WISE or CTECS Workplace Readiness
Business Management	6135	WISE or CTECS Workplace Readiness

SCPS CTE Course Title	Course	CTE Industry Credential Offered
Cabinetmaking I	8604	CTECS Workplace Readiness
Cabinetmaking II	8605	CTECS Workplace Readiness
Carpentry I	8601	CTECS Workplace Readiness or SkillsUSA Carpentry Examination
Carpentry II	8602	CTECS Workplace Readiness or SkillsUSA Carpentry Examination
Carpentry III	8603	CTECS Workplace Readiness or SkillsUSA Carpentry Examination
Child Development and Parenting	8232	CTECS Workplace Readiness
Civil Engineering and Architecture (PLTW)	8430	PLTW end of course test
Communication Systems	8415	CTECS Workplace Readiness
Computer Information Systems	6612	MOS
Computer Integrated Manufacturing (PLTW)	8442	PLTW end of course test
Construction Trades I	9071	CTECS Workplace Readiness
Cosmetology I	8745	CTECS Workplace Readiness
Cosmetology II	8746	State License Exam
Criminal Justice I	8702	CTECS Workplace Readiness
Criminal Justice II	8703	CTECS Workplace Readiness
Culinary Arts I	8275	NRF-ServSafe
Culinary Arts II	8276	END of Course ACF, if applicable
Culinary Arts III	8279	END of Course ACF, if applicable
Cybersecurity and IT Fundamentals	6302	CTECS Workplace Readiness or other (TBD)
Cybersecurity Software Operations	6304	CTECS Workplace Readiness or other (TBD)
Design, Multimedia, and Web Technologies	6630	MOS
Digital Applications	6617	CTECS Workplace Readiness
Digital Electronics (PLTW)	8440	PLTW end of course test
Digital Visualization	8459	CTECS Workplace Readiness
Drafting I	8530	CTECS Workplace Readiness
Drafting II	8531	ADDA–Mechanical
Drafting III	8532	ADDA–Architectural

SCPS CTE Course Title	Course	CTE Industry Credential Offered
Early Childhood Education I	8285	CTECS Workplace Readiness
Early Childhood Education II	8286	NOCTI Early Child or CTECS Workplace Readiness
Economics and Personal Finance	6120	WISE Financial Literacy
Electricity I	8533	CTECS Workplace Readiness or SkillsUSA Residential Wiring Examination
Electricity II	8534	CTECS Workplace Readiness or SkillsUSA Residential Wiring Examination
Electricity III	8535	CTECS Workplace Readiness or SkillsUSA Residential Wiring Examination
Emergency Medical Technician I	8333	CTECS Workplace Readiness
Emergency Medical Technician II, III	8334/ 8335	EMT
Engineering Design and Development (PLTW)	8443	PLTW end of course test
Engineering Drawing and Design	8436	CTECS Workplace Readiness
Engineering Exploration	8450	CTECS Workplace Readiness
Engineering Studies	8491	CTECS Workplace Readiness
Family Relations	8225	CTECS Workplace Readiness
Fashion Marketing	8140	CTECS Workplace Readiness
Firefighter I & II	8705 & 8706	Firefighter I & II Certification Examination
Geospatial Technology I	8423	CTECS Workplace Readiness
Geospatial Technology II	8424	CTECS Workplace Readiness or other (TBD)
Graphic Imaging Technology I	8660	SkillsUSA PrintE-Graphics Communications
Graphic Imaging Technology II	8661	SkillsUSA PrintE-Graphics Communications
Graphic Imaging Technology III	8662	SkillsUSA PrintE-Graphics Communications
Greenhouse Plant Production and Management	8035	CTECS Workplace Readiness
Health Assisting Careers	8331	NOCTI- Health Assistant
Horticulture Sciences	8034	CTECS Workplace Readiness



SCPS CTE Course Title	Course	CTE Industry Credential Offered
Human Body Systems (PLTW)	8380	PLTW end of course test
IB Business & Management and Supervision (SL)	IB6135	CTECS Workplace Readiness
Imaging Technology	8455	CTECS Workplace Readiness
Introduction to Engineering Design (PLTW)	8439	PLTW end of course test
Introduction to Fashion Design and Marketing	8248	CTECS Workplace Readiness
Introduction to Health and Medical Sciences	8302	CTECS Workplace Readiness
Introduction to Interior Design	8255	CTECS Workplace Readiness
Landscaping	8036	CTECS Workplace Readiness
Life Planning	8227	CTECS Workplace Readiness
Manufacturing Systems	8425	CTECS Workplace Readiness
Marketing	8120	WISE or CTECS Workplace Readiness
Masonry I	8512	CTECS Workplace Readiness or SkillsUSA Masonry Examination
Masonry II	8513	CTECS Workplace Readiness or SkillsUSA Masonry Examination
Masonry III	8514	CTECS Workplace Readiness or SkillsUSA Masonry Examination
Medical Assistant I	8345	NOCTI-Medical Asst.
Medical Interventions (PLTW)	8381	PLTW end of course test
Military Science I (JROTC)	7913	ASVAB or CTECS Workplace Readiness
Military Science II (JROTC)	7916	ASVAB or CTECS Workplace Readiness
Military Science III (JROTC)	7918	ASVAB or CTECS Workplace Readiness
Military Science IV (JROTC)	7919	ASVAB or CTECS Workplace Readiness
Nurse Aide I	8360	CTECS Workplace Readiness
Nurse Aide II	8362	C.N.A.
Nutrition and Wellness	8229	CTECS Workplace Readiness
Office Specialist I	6740	CTECS Workplace Readiness
Office Specialist II	6741	CTECS Workplace Readiness
Office Specialist III	6742	CTECS Workplace Readiness
Principles of Biomedical Sciences (PLTW)	8379	PLTW end of course test
Principles of Business and Marketing	6115	WISE or CTECS Workplace Readiness



SCPS CTE Course Title	Course	CTE Industry Credential Offered
Principles of Engineering (PLTW)	8441	PLTW end of course test
Principles of Technology I	9811	CTECS Workplace Readiness
Principles of Technology II	9812	CTECS Workplace Readiness
Production Systems	8447	CTECS Workplace Readiness
Programming	6640	CTECS Workplace Readiness
Small Engine Technology I	8725	CTECS Workplace Readiness
Small Engine Technology II	8726	CTECS Workplace Readiness
Sports, Entertainment and Recreational Marketing	8175	CTECS Workplace Readiness
Teachers for Tomorrow (FACS)	9062	CTECS Workplace Readiness
Technical Drawing and Design	8435	CTECS Workplace Readiness
Video and Media Technology I	8688	CTECS Workplace Readiness
Video and Media Technology II	8689	NOCTI-Video Production or CTECS Workplace Readiness
Video and Media Technology III	8690	CTECS Workplace Readiness

## CAREER AND TECHNICAL EDUCATION

### PROGRAM OF STUDIES

- ‡ Students are required to use provided bus service for all classes requiring transportation from a base school to another high school.
- Application required

**NOTE:** All cooperative education programs require an application.

**DE HONORS VIRGINIA TEACHERS FOR TOMORROW I • 9062**  
**Grade 12** **1 Credit**  
*Student acceptance is based on application, teacher recommendation, and essay.*

The DE Teachers for Tomorrow course introduces seniors to a career in teaching and education. The primary elements of the curriculum components 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. In addition to the fundamental curriculum components, all students are required to observe and participate in an internship outside the classroom. The internship may be done from the pre-school through 12th grade. To complete a CTE sequence, students must add one Family and Consumer Sciences course.

**Schools offering course:** *BPHS, MVHS, CFHS*

### AGRICULTURE & NATURAL RESOURCES

*Future Farmers of America (FFA) is the co-curricular organization for horticulture students.*

**‡HORTICULTURE SCIENCES •** **8034**  
**Grades 10-12** **1 Credit**

Students develop the necessary knowledge, skills, habits, and attitudes for entry-level employment and advancement in areas such as floriculture, landscape design, greenhouse operation, nursery plant production, and turf management. They receive instruction in using soil and other plant-growing media and in identifying, propagating, and growing horticultural plants in the greenhouse and land laboratory.

**Schools offering course:** *NSHS*

**‡GREENHOUSE PLANT PRODUCTION AND MANAGEMENT** **8035**  
**Grades 10-12** **2 Credits**  
**Recommended Background:** *Horticulture Sciences*

Students enrolled in this course learn the operating procedures for a greenhouse. Units of instruction in this course include identification of plants; growing greenhouse crops; producing and maintaining nursery crops; establishing, maintaining, and designing landscape planting; establishing and maintaining turf grass; and operating a flower shop and garden center.

**Schools offering course:** *NSHS*

### ‡LANDSCAPING

**Grades 11-12**

**Recommended Background:** *Horticulture Sciences*

**8036**  
**2 Credits**

In this course, students develop knowledge, skills, habits, and attitudes for entry-level employment and advancement in areas such as landscape design, landscape construction, and landscape maintenance. They receive instruction in sketching and drawing, analyzing a landscape site, designing for function and aesthetics, identifying and selecting landscape plants, purchasing and installing plants, and maintaining the landscape by watering, fertilizing, mulching, pruning, and controlling pests.

**Schools offering course:** *NSHS*

### BUSINESS & INFORMATION TECHNOLOGY

*Future Business Leaders of America (FBLA) is the co-curricular organization for Business and IT students.*

**\*Digital competency is required for several courses within business and information technology. Digital competency may be demonstrated by successfully doing any ONE of the following:**

- **Completing Digital Applications (6617),**
- **Completing Digital Applications (6617) at the Middle School, passing the SCPS common final exam, and completing the required portfolio, OR**
- **Passing the SCPS Digital Competency Exam.**

### ACCOUNTING

**Grades 10-12**

**Recommended Background:** *Digital Applications— see NOTE under Digital Applications*

**6320**  
**1 Credit**

Students study the basic principles, concepts, and practices of the accounting cycle for various business structures with an emphasis on sole proprietorships and partnerships. Students learn fundamental accounting procedures using manual and electronic systems. Students may have the opportunity to earn college credit upon receiving a passing score on The College Board CLEP test. Students may have the opportunity to participate in the cooperative education program.

### ADVANCED ACCOUNTING

**Grades 11-12**

**Required Background:** *Accounting*

**6321**  
**1 Credit**

Students gain in-depth knowledge of accounting procedures and techniques used to solve problems and make financial decisions for various business structures with an emphasis on corporations. Students also learn to use accounting and/or spreadsheet software to analyze and interpret business applications. Students may have the opportunity to earn college credit upon receiving a passing score on The College Board CLEP test. Students may have the opportunity to participate in the cooperative education program.

**BUSINESS LAW**  
**Grades 11-12****6131**  
**1 Credit**

Students examine the foundations of the American legal system by learning concepts related to laws affecting business and individuals. Topics include contracts, individual rights and responsibilities, crimes, law enforcement, and the courts. Students may have the opportunity to earn college credit upon receiving a passing score on The College Board CLEP test. Students may have the opportunity to participate in the cooperative education program.

**BUSINESS MANAGEMENT**  
**Grades 11-12****6135**  
**1 Credit**

Students study management concepts and leadership styles as they explore business functions, economics, various business structures, and management responsibilities. Supervision, human relations, communication, and employability skills are enhanced. Students may have the opportunity to participate in the cooperative education program.

**COMPUTER INFORMATION SYSTEMS**  
**Grades 9-12****6612**  
**1 Credit**

**Required Background:** *Digital Applications competency – see NOTE under Digital Applications*

Students use introductory word processing, spreadsheet, database, and presentation software to complete practical application and software integration activities. They explore computer concepts, operating systems, and emerging technologies. Students may have the opportunity to participate in the cooperative education program.

**ADVANCED COMPUTER INFORMATION SYSTEMS**  
**Grades 10-12 6613****6613**  
**1 Credit**

**Recommended Background:** *Computer Information Systems*

Students apply problem solving through advanced word processing, spreadsheet, database, presentation, and integration of software. They learn advanced computer concepts, operating systems, and emerging technologies. Students may have the opportunity to participate in the cooperative education program.

**CYBERSECURITY AND IT FUNDAMENTALS**  
**Grades 9-12****6302**  
**1 Credit**

**Recommended Background:** *Programming or Programming Aptitude*

Students will be introduced to the principles of cybersecurity, explore emerging technologies, examine threats and protective measures, and investigate the diverse high-skill, high-wage, and high-demand career opportunities in the field of cybersecurity. Cybersecurity affects every individual, organization, and nation. This course focusses on the evolving and all-pervasive technological environment with an emphasis on securing personal, organizational, and national information. Skills related to information technology basics, Internet fundamentals, network systems, computer maintenance/upgrading/trouble shooting, computer applications, programming, graphics, Web page design, and interactive media are introduced.

**CYBERSECURITY SOFTWARE OPERATIONS**  
**Grades 10-12****6304**  
**1 Credit**

**Required Background:** *Cybersecurity Fundamentals*

Cybersecurity Software Operations 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 learn how to install and configure network cards and connect them to networks; to install the operating systems; to create, set up, and manage accounts; to load software; and to establish, implement, and maintain network integrity security plans. This course may cover software-based network operating systems, such as Windows Server or Linux, to prepare students with a foundation in computer network administration.

**DESIGN, MULTIMEDIA, AND WEB TECHNOLOGIES**  
**Grades 9-12****6630**  
**1 Credit**

**Required Background:** *Digital Applications competency – see NOTE under Digital Applications*

Students develop skills in creating desktop publications, multimedia presentations/projects, and Web sites using industry standard application software. Students incorporate principles of layout and design in completing publications and projects. Students may have the opportunity to participate in the cooperative education program.

**ADVANCED DESIGN, MULTIMEDIA, AND WEB TECHNOLOGIES****6631**  
**1 Credit**

**Grades 10-12**  
**Recommended Background:** *Design, Multimedia, and Web Technologies*

Students develop advanced skills in creating interactive media, Web sites, and publications for print and electronic distribution. Students design portfolios that may include business cards, newsletters, mini-pages, Web pages, multimedia presentations/ projects, calendars, and graphics. Students may have the opportunity to participate in the cooperative education program.

**ECONOMICS AND PERSONAL FINANCE**  
**Grades 10-12****6120**  
**1 Credit**

Students learn how to navigate the financial decisions they must face and to make informed decisions related to career exploration, budgeting, banking, credit, insurance, spending, taxes, saving, investing, buying/leasing a vehicle, living independently, and inheritance. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship and career success. Students may have the opportunity to participate in the cooperative education program. In order to assist in meeting the standard diploma requirement for graduation, the WISE Financial Literacy test (State-approved Industry Credential) will be administered to all students enrolled in Economics and Personal Finance. In addition, to assist with meeting the graduation requirement for both Standard and Advanced Studies Diplomas, students will complete the Ever-Fi Financial Literacy module as an online experience.

**NOTE:** This course is a graduation requirement for students.

**DIGITAL APPLICATIONS (FORMERLY KEYBOARDING) 6617**  
**Grades 9-12 1 Credit**

This course is designed for secondary school students to develop real-life, outcome-driven approach skills for digital citizenship, basic computer operations, keyboarding, application software (word processing, spreadsheets, multimedia applications, databases), and career exploration. This course promotes skills that can be applied across the curriculum and offers preparation relevant to 21st century skills and post-secondary education.

**Note: Digital competency may be demonstrated by successfully doing any ONE of the following:**

- Completing Digital Applications (6617),
- Completing Digital Applications (6617) at the Middle School, passing the SCPS common final exam, and completing the required portfolio, OR
- Passing the SCPS Digital Competency Exam.

**PRINCIPLES OF BUSINESS AND MARKETING 6115**  
**Grades 9-10 1 Credit**

Students explore the roles of business and marketing in the global economy. They learn to make decisions as consumers, wage earners, and citizens. Students will also enhance their interpersonal, communication, and employability skills.

**Schools offering course: BPHS IB Program**

**PROGRAMMING 6640**  
**Grades 10-12 1 Credit**  
**Recommended Background: Digital Applications competency recommended – see NOTE under Digital Applications**

Students explore computer concepts, use logic procedures, and implement programming procedures using one or more programming languages, such as Visual Basic. In addition, HTML is used to program Web pages. Students may have the opportunity to participate in the cooperative education program.

**ADVANCED PROGRAMMING 6641**  
**Grades 11-12 1 Credit**  
**Required Background: Programming**

Building on a foundation of programming skills, students will use object-oriented programming to develop applications for Windows, database, multimedia, games, mobile, and/or Web environments. Students will have the opportunity to explore and create applications related to the information technology and game design industries. Students may have the opportunity to participate in the cooperative education program.

## MARKETING

**Distributive Education Clubs of America (DECA) is the co-curricular organization for marketing students.**

**FASHION MARKETING 8140**  
**Grades 10-12 1 Credit**  
**Recommended Background: Interest in fashion career**

Students develop general marketing skills necessary for successful employment in fashion marketing, general marketing skills applied to the apparel and accessories industry, and specialized skills unique to fashion marketing. Personal selling, sales promotion, purchasing, physical distribution, market planning, and product/

service technology are part of this course. Students may have the opportunity to participate in the cooperative education program.

**ADVANCED FASHION MARKETING 8145**  
**Grades 11-12 1 Credit**  
**Required Background: Fashion Marketing**

Students with a career interest in fashion marketing gain in-depth knowledge of the apparel and accessories industry and skills important for supervisory-management employment in apparel businesses. They develop advanced skills unique to fashion marketing and advanced general marketing skills applied to the apparel and accessories industry. Professional selling, sales promotion, buying, merchandising, marketing research, product/service technology, and supervision related to the content are part of this course. Students may have the opportunity to participate in the cooperative education program.

**MARKETING 8120**  
**Grades 10-12 1 Credit**

Students are introduced to the functions and foundations involved in the marketing of goods, services, and ideas and achieve the skills necessary for successful marketing employment. Students study risk management, selling, promotion, pricing, purchasing, marketing-information management, product/service planning, distribution, and financing. Foundation skills include economics, human resources, and marketing and business abilities necessary for success in marketing occupations. Students may have the opportunity to participate in the cooperative education program.

**ADVANCED MARKETING 8130**  
**Grades 11-12 1 Credit**  
**Required Background: Marketing**

Students continue to gain knowledge of marketing functions and foundations as they relate to supervisory and management responsibilities and develop skills needed for advancement. They develop skills for supervisory positions and/or for continuing education in a marketing-related field. Students may have the opportunity to participate in the cooperative education program.

**SPORTS, ENTERTAINMENT, AND RECREATIONAL MARKETING 8175**  
**Grades 10-12 1 Credit**

Students are introduced to the functions and foundations involved in the marketing of goods and services as they relate to the sports, entertainment, and recreational marketing field. Students develop skills in the areas of marketing analysis, event marketing, communications, and human relations. Students may have the opportunity to participate in the cooperative education program.



**ADVANCED SPORTS, ENTERTAINMENT, AND RECREATIONAL MARKETING****Grades 11-12****8177****1 Credit****Required Background:** Sports, Entertainment, and Recreational Marketing

Students will continue their study of the sports, entertainment, and recreation (SER) industry including the impact of electronic commerce and international marketing in this area. Other topics include market research, market segmentation, and sponsorship as well as planning, implementing, and evaluating SER events, working with agents and personal managers, and appraising the role of labor unions in SER. Additional study will be focused on developing a career plan in the sports, entertainment, and recreation area. Students may have the opportunity to participate in the cooperative education program.

**HEALTH AND MEDICAL SCIENCES****HOSA-Future Health Professionals is the co-curricular organization for Health and Medical Sciences students.****‡EMERGENCY MEDICAL TECHNICIAN I •****8333****Grades 11-12****1 Credit****Introduction to Health and Medical Sciences- student must be 16 years of age by the first day of school in order to enroll in EMT I. Emergency Medical Technician I must be completed to enroll in EMT II.**

In these courses, students become skilled in identifying and dealing with emergencies such as bleeding, fractures, airway obstruction, and cardiac arrest. Instruction emphasizes proper care and use of common emergency equipment and safe methods for lifting, moving, and transporting injured persons. Supervised on-the-job training and patient-care experiences are part of the instructional program. Program completers may take the EMT state certification examination administered by the Virginia Department of Health. Students are encouraged but not required to consider membership with a volunteer rescue organization. Students must provide documentation of immunizations and a negative drug screen. Class assignments include technical reading level of at least grade 10.

**Note: The EMT courses require students to devote time outside the scheduled course period to participate in related activities occurring in the evening and on weekends. AHA Healthcare provider or ARC Professional Cardiopulmonary Resuscitation (CPR) certification is required prior to the start of class**

**Schools offering course: CFHS, SHS****‡EMERGENCY MEDICAL TECHNICIAN II****8334****Grades 11-12****1 Credit****Note: See Description above. MUST be concurrently enrolled in EMT I & EMT II****Schools offering course: CFHS, SHS****‡EMERGENCY MEDICAL TECHNICIAN III****8335****Grade 12****1 Credit****Required Background: Successful completion of EMT I and EMT II/ Instructor Endorsement**

EMT III is designed as preparatory course for higher levels of EMS training such as Advanced EMT and Paramedic. Coursework builds on material from EMT I/II; more in-depth lessons on patient assessments techniques, disease processes, and pharmacology are included. Advanced skills including ECG interpretation and advanced airway management are learned. Additionally, students will be introduced to EMS education and teaching methodology.

Students will recertify in Healthcare Provider CPR, and have the opportunity to earn additional certifications as part of the course. Students will earn all Continuing Education hours required for EMT recertification.

**Schools offering course: CFHS****‡HEALTH ASSISTING CAREERS •****8331****Grades 11-12****2 Credits****Required Background: Introduction to Health and Medical Sciences and teacher recommendation**

Students enrolled in the two-credit Health Assistant class study families of health careers such as dental, medical, nursing, allied health, and related occupations and continue to develop basic skills common to careers in health care. Opportunities are provided for students to further explore their interests in various health care fields through shadowing experiences and selected skills practice in health care facilities based on their particular areas of interest. Note: Clinical/Work Experience: Students must provide his/her own transportation to and from the clinical work site. Students must meet work site health requirements including a negative PPD (Tuberculosis screening test) prior to clinical placement. A uniform is required to be worn in clinical areas.

**Schools offering course: BPHS****INTRODUCTION TO HEALTH AND MEDICAL SCIENCES 8302****Grades 10-12****1 Credit**

This course emphasizes the development of basic skills common to health care. Students explore the diverse opportunities available in the health care industry, as well as the educational requirements, personal characteristics, and professional responsibilities for specific fields of interest. The anatomy, physiology, and pathophysiology of the human body, medical terminology, infection control, and legal, ethical, and consumer issues pertaining to health care are studied. CPR and First Aid certifications are obtained. Upon successful completion of this course, the student may enroll in EMT I, Health Assistant I, Nursing Aide I, or Medical Assistant I. This course is designed for any student interested in any aspect of the health care industry.

**‡MEDICAL ASSISTANT I •****8345****Grades 11-12****2 Credits****Required Background: Introduction to Health and Medical Sciences**

Students develop basic skills and techniques to assist the physician and/or other medical professionals in patient examinations, basic emergency care, simple laboratory tests, preparation for minor surgical procedures, and administrative duties and will gain foundation knowledge in basic anatomy and physiology, medical ethics and legal responsibilities. Students also explore medical assisting career pathways.

**Schools offering course: MVHS**

**‡NURSE AIDE I •****Grades 11-12****Required Background:** *Introduction to Health and Medical Sciences (including clinical experience)***8360****2 Credits**

This course emphasizes advanced skills obtained in a variety of health care facilities under the supervision of an instructor. Communication and interpersonal skills, infection-control, safety and emergency procedures, recognition of changes in body functioning, personal care needs of both the long-term care and acute care patient are studied. The legal aspects of practice as a certified nurse aide and occupational health and safety measures are also included. Each student is required to purchase a white-scrub-uniform, apron, white shoes, second-hand watch, and have a negative PPD (Tuberculosis screening test) and a urine drug screen test prior to clinical placement. This course is approved by the State Board of Nursing and will qualify the student for participation in Virginia Nurse Aide Competence Evaluation Program (required for certification). Transportation to the clinical sites is provided.

**Schools offering course:** *NSHS***‡NURSE AIDE II****Grades 11-12****8362****2 Credits****Note:** See description above. **MUST** be concurrently enrolled in Nurse Aide I & Nurse Aide II**Schools offering course:** *NSHS***FAMILY AND CONSUMER SCIENCES**

*Family, Career & Community Leaders of America (FCCLA) is the co-curricular organization for Family and Consumer Sciences students.*

**CHILD DEVELOPMENT AND PARENTING****Grades 10-12****8232****1 Credit**

Students focus on assessing the impact of the parenting role in society, taking responsibility for individual growth within the parenting role, preparing for a healthy emotional and physical beginning for parent and child, and meeting developmental needs of children and adolescents.

**‡CULINARY ARTS I •****Grades 10-11****8275****2 Credits**

This course is designed to teach basic skills in the area of culinary arts. Labs offer hands-on experience in all areas of the food service industry. Students will be able to enter the food service job market or continue their education in the culinary arts field.

**Note:** The work in this course requires that the student comply with the regulations of the Virginia Health Department in preparing and serving food sold to the public.**Schools offering course:** *BPHS, MVHS, SHS***‡CULINARY ARTS II****Grades 11-12****Required Background:** *Culinary Arts I and students must successfully pass ServSafe Manager Certification Exam***8276****2 Credits**

This course provides instruction in skills related to food preparation, development of personal qualities for job success, and a working knowledge of employment opportunities in the food industry. Note: The work in this course requires that the student comply with the regulations of the Virginia Health Department in preparing and serving food sold to the public.

**Schools offering course:** *BPHS, MVHS, SHS***‡CULINARY ARTS SPECIALIZATION****Grade 12****8279****2 Credits****Required Background:** *Culinary Arts II and students must successfully pass the Culinary Arts II end-of-the- year assessment and have the teacher's recommendation*

This course provides students with an opportunity to enhance their skills in planning menus, applying nutritional principles, implementing sanitation and safety standards, and exploring careers. Students have the prospect of specializing in areas based on the student's post secondary education or career goals. Critical thinking, practical problem solving, and entrepreneurial opportunities within the field of culinary arts are emphasized.

**Note:** The work in this course requires that the student comply with the regulations of the Virginia Health Department in preparing and serving food sold to the public. In addition, students must interview with the instructor prior to enrollment to determine an area of specialization.**Schools offering course:** *BPHS, MVHS***‡EARLY CHILDHOOD, EDUCATION, & SERVICES I •****Grades 10-12****8285****2 Credits**

Students prepare for employment or continued education in the field of childcare and early childhood education. Emphasis will be placed on development, implementation, and evaluation of learning activities through first-hand experiences working with young children in an on-site lab setting. National Child Development Associate Credential competencies and state validated education competencies are the framework for the course.

**Schools offering course:** *BPHS, NSHS***‡EARLY CHILDHOOD, EDUCATION, & SERVICES II****Grades 11-12****8286****2 Credits****Required Background:** *Early Childhood, Education, & Services I*

This course is an extension of Early Childhood Education I. It is recommended for those students interested in child-related careers. Emphasis will be placed on occupational functions of early childhood educators. Students continue to obtain on-site lab experiences.

**Schools offering course:** *BPHS, NSHS*



**FAMILY RELATIONS**  
**Grades 9-12****8225**  
**1 Credit**

Students enrolled in Family Relations focus on identifying factors that build and maintain relationships, developing communication patterns that enhance family friend, and work-related relationships, dealing effectively with family and peer stressors and conflicts.

**INTRODUCTION TO FASHION CAREERS**  
**Grades 9-12****8248**  
**1 Credit**

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**  
**Grades 9-12****8255**  
**1 Credit**

The home furnishings and design competencies focus on careers that relate to the elements and principles of design, cultural impact on the environment, decision-making skills for housing and home furnishings, development of artistic skills, and environmental issues. Emphasis will be placed on basic math, science, and communication skills.

**LIFE PLANNING**  
**Grades 11-12****8227**  
**1 Credit**

This course equips students with the skills needed to face the challenges of today's society. Students will develop a life-management plan which includes developing career, community, and life connections; healthy relationships; financial planning; and leadership within the community. Critical thinking and practical problem solving are emphasized through relevant life applications.

**NUTRITION AND WELLNESS**  
**Grades 9-12****8229**  
**1 Credit**

Students focus on making choices that promote good health, analyzing relationships between psychological and social needs and food choices, choosing foods that promote wellness, obtaining and storing food for self and family, preparing and serving nutritious meals and snacks, selecting and using equipment for food preparation, and identifying strategies to promote optimal nutrition and wellness of society. Teachers highlight the basic skills of math, science, and communication when appropriate in the content.

**TECHNOLOGY AND ENGINEERING EDUCATION**

*Technology Student Association (TSA) is the co-curricular organization for Technology Education students.*

*\*Successful completion of the technical drawing and design course is required for several courses within technology and engineering education.*

**ARCHITECTURAL DRAWING AND DESIGN**  
**Grades 10-12****8437**  
**1 Credit**

**Required Background:** *Technical Drawing and Design*

This course offers the student an opportunity to simulate the role of an architect by solving a residential design problem using a series of steps called "the design process." The student will learn and follow accepted architectural design principles and drawing practices to arrive at their individual solution to the design problem. Classroom activities will include sketching preliminary ideas, drawing a presentation floor plan and presentation elevation drawing, and building a scaled architectural model. Architectural-related occupations will be explored during the year. Drawing/modeling tools and supplies are provided.

**Schools offering course:** *BPHS, CFHS, MVHS, NSHS*

**COMMUNICATION SYSTEMS**  
**Grades 9-12****8415**  
**1 Credit**

This course will provide students with experiences utilizing various processes and methods used in digital communication, providing them with the ability to effectively get their ideas across to others. Students will explore communicating with data systems (GIS, GPS); complete technical designs, produce graphics and 3D animations; explore optics (photographic concepts); create digital audio and video presentations; and integrate different media together by creating a digital portfolio of their work. Students will solve problems involving input, process, output, and feedback processes. Students will also investigate potential career choices related to communication and the impact of communication on society.

**Schools offering course:** *CFHS*

**CYBERSECURITY**

**Located under Business & Information Technology**

**DIGITAL VISUALIZATION**  
**Grades 10-12****8459**  
**1 Credit**

**Required Background:** *Technical Drawing and Design*

Students will gain experiences related to computer animation by solving problems involving 3D object manipulation, story boarding, texture mapping, lighting concepts, and environmental geometry. They will produce animations that include interdisciplinary projects related to science, engineering, and the entertainment industry. A major emphasis will be the production of a portfolio that showcases examples of original student work.

**Schools offering course:** *CFHS*

**ENGINEERING EXPLORATION**  
**Grades 9-11**

**8450**  
**1 Credit**

This course will enable students to examine technology and engineering fundamentals related to solving real-world problems. Students will be exposed to a variety of engineering specialty fields and related careers to determine whether they are good candidates for postsecondary educational opportunities in engineering. Students will gain a basic understanding of engineering history and design, using mathematical and scientific concepts. Students will participate in hands-on projects in a laboratory setting as they communicate information through team-based presentations, proposals, and technical reports.

**Schools offering course:** CFHS, MVHS, SHS

**ENGINEERING STUDIES**  
**Grades 10-12**

**8491**  
**1 Credit**

**Required Background:** Engineering Exploration or Engineering Practicum IV

To learn the applications and design process of engineering, students form engineering teams and select a group design problem. Each team uses communications, graphics, mathematics, and community resources to solve problems. Each team learns appropriate information in order to complete a project. Projects may be models, systems, or products that creatively solve an engineering problem. Engineering Exploration or Engineering Practicum IV

**Schools offering course:** CFHS, MVHS, SHS

**ENGINEERING DRAWING AND DESIGN**  
**Grades 10-12**

**8436**  
**1 Credit**

**Required Background:** Technical Drawing and Design

This course is an extension of Technical Drawing and Design in that the student will continue to learn technical drawing concepts with the aid of a CADD system. Lessons are initially arranged at the beginner skill level and progress to the intermediate skill level. The student will use AutoCAD for two-dimensional drawing applications, while three-dimensional solid modeling will be performed with Autodesk Inventor software. The student will be engaged in real-life projects while developing teamwork, design, and problem-solving skills. Several engineering-related occupations will be explored during the year.

**Schools offering course:** BPHS, CFHS, MVHS, NSHS

**GEOSPATIAL TECHNOLOGY I**  
**Grades 11-12**

**8423**  
**1 Credit**

The Geospatial Technology program provides experiences pertaining to the study and use of geographic information systems (GIS), global positioning systems (GPS), remote sensing (RS), and mobile technologies. Fundamentally, these technologies allow students to explore and analyze the natural and human-made world, from local to global and beyond. Students use various tools, processes, and techniques to create, store, access, manipulate, and revise data to solve human challenges. These experiences employ real-world spatial analysis models and guidelines for integrating, interpreting, analyzing, and synthesizing data, with a focus on both the implications and the limitations of such technologies. These experiences also include interfacing to network-based data management systems. Students will have the opportunity to earn Dual Enrollment credit through James Madison University.

**Schools offering course:** SHS

**GEOSPATIAL TECHNOLOGY II**  
**Grades 11-12**

**8424**  
**1 Credit**

**Required Background:** Geospatial Technology I

Students further explore and analyze the natural and human-made world, from local to global and beyond. Students use various tools, processes, and techniques to create, store, access, manipulate, and revise data to solve human challenges. Data is created, collected, and used to analyze spatial relationships. These experiences employ real-world spatial analysis models and guidelines for integrating, interpreting, analyzing, and synthesizing data, with a focus on both the implications and the limitations of such technologies. These experiences also include interfacing to network-based data management systems. Students will have the opportunity to earn Dual Enrollment credit through James Madison University.

**Schools offering course:** SHS

**IMAGING TECHNOLOGY**  
**Grades 9-12**

**8455**  
**1 Credit**

Students are introduced to the basic principles of photography, with strong emphasis on digital imaging. Students will study the development of photography as a communication medium and its evolution into the digital realm. The traditional photographic process will be explored along with hands-on experience utilizing the camera and learning the features and controls used to produce a memorable photographic image. Students will learn to use image-editing software to correct, transform, and enhance digital images, as well as learn various presentation techniques necessary to display their work.

**Schools offering course:** CFHS

**MANUFACTURING SYSTEMS I**  
**Grades 9-12**

**8425**  
**1 Credit**

This course provides an orientation to careers in various fields of manufacturing. Emphasis will be placed on the major systems in manufacturing, including design, working drawings, manufacturing processes, material handling, production planning, measurement systems, labor issues, occupational safety, and quality control. Students participate in teams and produce manufacturing projects that demonstrate critical elements of manufacturing systems.

**Schools offering course:** BPHS, MVHS

**ADVANCED MANUFACTURING SYSTEMS II**  
**Grades 10-12**

**8427**  
**1 Credit**

**Required Background:** Manufacturing Systems or Production Systems

Students develop an in-depth understanding of automation and its applications in manufacturing. Activities center on flexible manufacturing processes and Computer Integrated Manufacturing (CIM). Students also learn basic computer aided design (CAD) skills and apply those skills toward manufacturing projects. The student will use all facets of the design process to produce a product through a study of basic concepts of manufacturing technology by experiences in forming, separating, combining, assembling and finishing materials used in the production of manufactured goods. Students are expected to use skills and knowledge to design and develop a manufacturing system that can produce consumer products.

**Schools offering course:** BPHS

**PRODUCTION SYSTEMS** **8447**  
**Grades 9-12** **1 Credit**

Students understand how products are designed, manufactured, and marketed to the public. This course will also give students the opportunity to experience the construction trades such as drafting, carpentry, cabinetmaking, line production, and assembly line production techniques. A working knowledge of design and problem solving, research and development processes, and materials will be an integral part of this course.

**Schools offering course:** ***MVHS, NSHS***

**TECHNICAL DRAWING AND DESIGN** **8435**  
**Grades 9-12** **1 Credit**

This course provides the student a working knowledge of the language, tools, and practices of technical drawing. Technical drawing is the universal language of design. The focus of this course is to teach the student how to graphically communicate ideas using lines, symbols, and notations. In addition, the student will learn how to visualize and project objects in two-dimensional and three-dimensional form. Traditional drawing equipment and a computer-aided drafting and design (CADD) system will be used to teach technical drawing concepts. This course will give the student an opportunity to explore a skill that is creative, practical, and useful in industrial design, architecture, technical illustration, engineering, construction, and computer graphics.

**Schools offering course:** ***BPHS, CFHS, MVHS, NSHS***

**TELEVISION AND MEDIA PRODUCTION I, II, III**  
**Located Under Trade and Industrial Education**

## THE AP + PROJECT LEAD THE WAY (PLTW) STUDENT RECOGNITION

Students who complete the requirements of their chosen pathway earn the AP + PLTW student recognition, a qualification that demonstrates to colleges and employers that the student is ready for advanced course work and interested in careers in this discipline.

To earn the recognition, the student must satisfactorily complete three courses in the pathway – one AP course; one PLTW course; and a third course, either AP or PLTW – and earn a qualifying score of 3 or higher on the AP Exam(s) and a score of Proficient or higher on the PLTW End of Course (EOC) assessment(s).

Level	Engineering	Biomedical Science
College AP Courses	AP Biology AP Calculus AB AP Calculus BC AP Chemistry AP Environmental Science AP Physics 1: Algebra-Based AP Physics 2: Algebra-Based	AP Biology AP Chemistry
Career-PLTW Courses	Introduction to Engineering Design Principles of Engineering Aerospace Engineering Civil Engineering Architecture Computer Integrated Manufacturing Digital Electronics	Principles of Biomedical Science Human Body Systems Medical Interventions

### PROJECT LEAD THE WAY

#### AEROSPACE ENGINEERING – PLTW

**Grades 10**

**8428**

**1 Credit**

**Required Background:** *Introduction to Engineering Design*

The course explores the evolution of flight, flight fundamentals, navigation and control, aerospace materials, propulsion, space travel, orbital mechanics, ergonomics, remotely operated systems and related careers. In addition, the course presents alternative applications for aerospace engineering concepts.

Schools offering course: NSHS

#### ‡ BIOMEDICAL INNOVATION - PLTW

**Grade 12**

**8382**

**2 Credits**

**Required Background:** *Biology, Chemistry and one of the following: AP Chemistry, AP Biology, Physics/AP Physics, Anatomy & Physiology, plus teacher recommendations and letter of interest AND/OR one or more PLTW courses and teacher recommendation*

In this capstone course, students apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences. Students design innovative solutions for the health challenges of the 21st century as they work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. They have the opportunity to work on an independent project and may work with a mentor or advisor from a university, hospital, physician's office, or industry. Throughout the course, students are expected to present their work to an adult audience that may include representatives from the local business and healthcare community.

**Schools offering course:** NSHS

#### CIVIL ENGINEERING AND ARCHITECTURE - PLTW

**Grades 11-12**

**8430**

**1 Credit#**

**Required Background:** *Introduction to Engineering Design and Principles of Engineering or Digital Electronics*

Students are introduced to the independent fields of civil engineering and architecture. Students learn through project-based and problem-based lessons including project planning, site planning, and building design. Software utilized includes AutoCAD, Autodesk Inventor Professional, and Autodesk Revit, Viz, and Architectural Desktop.

**Schools offering course:** NSHS

#### COMPUTER INTEGRATED MANUFACTURING – PLTW

**Grades 11-12**

**8442**

**1 Credit#**

**Required Background:** *Introduction to Engineering Design and Digital Electronics*

Students learn concepts of robotics and automated manufacturing by creating three-dimensional designs with modeling software and producing models of their designs. Students use Computer Numerical Control (CNC) equipment to produce actual models of their three-dimensional designs. Fundamental concepts of robotics used in automated manufacturing and design analysis are included.

**Schools offering course:** NSHS



**DIGITAL ELECTRONICS – PLTW** 8440  
**Grades 10-12 1 Credit#**  
**Required Background:** *Introduction to Engineering Design*

Students use computer simulations to learn about the logic of electronics as they design, test, and construct circuits and devices. Students apply control system programming and explore sequential logic and digital circuitry fundamentals. Topics in computer circuitry are also presented, including circuitry analysis and an exploration into diodes, transmitters, and operational amplifiers.

**Schools offering course:** *NSHS*

**ENGINEERING DESIGN & DEVELOPMENT – PLTW** 8443  
**Grade 12 2 Credits**  
**Required Background:** *Introduction to Engineering Design, Principles of Engineering, Digital Electronics, and Computer Integrated Manufacturing*

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 a three-dimensional design project and a team-oriented project that are critiqued by an evaluation committee. Fundamental concepts of robotics used in automated manufacturing and design analysis are included.

**Schools offering course:** *NSHS*

**‡HUMAN BODY SYSTEMS - PLTW** 8380  
**Grades 10-12 1 Credit**  
**Required Background:** *Biology and teacher recommendation AND/OR Principles of Biomedical Sciences-PLTW and teacher recommendation*

Students examine the processes, structures, and interactions of the human body systems to learn how they work together to maintain homeostasis (internal balance) and good health. Using real-world cases, students take on the role of biomedical professionals and work together to solve medical mysteries. Hands-on projects include designing experiments, investigating the structures and functions of body systems, and using data acquisition software to monitor body functions such as muscle movement, reflex and voluntary actions, and respiratory operation. Important concepts covered in the course are communication, transport of substances, locomotion, metabolic processes, defense, and protection. Exploring science in action, students build organs and tissues out of clay on a skeletal manikin throughout the year.

**Schools offering course:** *NSHS*

**INTRODUCTION TO ENGINEERING DESIGN - PLTW** 8439  
**Grades 9-11 1 Credit#**

Students use a problem-solving model to improve existing products and invent new ones. Using sophisticated three-dimensional modeling software, students communicate the details of the products. Emphasis is placed on analyzing potential solutions and communicating ideas to others. This course is the first in a series being implemented for students seeking a more in-depth, hands-on knowledge of engineering and engineering technology-based careers.

**Schools offering course:** *NSHS*

**‡MEDICAL INTERVENTIONS - PLTW** 8381  
**Grades 11-12 1 Credit**  
**Required Background:** *Biology, Algebra II and Chemistry completed or concurrently enrolled and teacher recommendations AND/OR one or more PLTW courses and teacher recommendation; Anatomy and Physiology enrolled concurrently strongly recommended*

Students investigate the variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the lives of a fictitious family. The course is a "How-To" manual for maintaining overall health and homeostasis in the body as students explore: how to prevent and fight infection; how to screen and evaluate the code in human DNA; how to prevent, diagnose and treat cancer; and how to prevail when the organs of the body begin to fail. Students are exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Lifestyle choices and preventive measures are emphasized as well as the important role scientific thinking and engineering design play in the development of interventions of the future.

**Schools offering course:** *NSHS*

**‡PRINCIPLES OF BIOMEDICAL SCIENCES – PLTW** 8379  
**Grades 9-11 1 Credit**

This course is designed to provide an overview of all the courses in the Biomedical Sciences Program and to lay the scientific foundation necessary for student success in the subsequent courses. Students explore concepts of human medicine, research processes, bioinformatics and human physiology. Hands-on projects enable students to investigate human body systems and various health conditions, including heart disease, diabetes, sickle cell disease and infectious diseases. Over the length of the course, students work together to investigate a crime scene and analyze autopsy reports in order to determine the factors that led to the death of a fictional person. After pinpointing those factors, the students investigate lifestyle choices and medical treatments that might have prolonged the person's life. The key biological concepts embedded in the curriculum include homeostasis, metabolism, inheritance of traits and DNA, feedback systems, and defense against disease.

**Schools offering course:** *NSHS*

**PRINCIPLES OF ENGINEERING - PLTW** 8441  
**Grades 11-12 1 Credit**  
**Required Background:** *Introduction to Engineering Design; Algebra II, which may be taken concurrently, and Digital Electronics*

Students develop an understanding of the engineering profession and the fundamental aspects of engineering problem solving. Students study the historical and current impacts of engineering on society as well as ethical implications. Mathematical and scientific concepts will be applied to fundamental engineering topics, including mechanics and electrical circuit theory.

**Schools offering course:** *NSHS*

## TRADE AND INDUSTRIAL EDUCATION

*SkillsUSA is the co-curricular organization for Trade and Industrial students.*

### AUTOMOTIVE BODY TECHNOLOGY

Courses are taught by Automotive Service Excellence (ASE) Certified Instructors

*The Automotive Body Technology program is a 3-year program with mastery of each task for job entry-level skills as a priority. The program is open to 10th, 11th, and 12th graders. Students will complete a pre-test prior to being admitted to Automotive Body Technology I (8676), as required by NATEF.*

‡AUTO BODY TECHNOLOGY I – COLLISION AND REPAIR •  
Grades 10-11 8676  
(Other grades, if space available) 2 Credits

Students are taught non-structural analysis, damage repair, and welding. Students learn body and frame construction, and the use of hand and power tools. Students work with a variety of materials, using metal finishing and body filling techniques to prepare surfaces and repair panels. Students learn automotive history, practice shop safety, gain career skills, and use custom techniques.

**Schools offering course: NSHS**

‡AUTO BODY TECHNOLOGY II – PAINTING AND REFINISHING 8677  
Grades 11-12 4 Credits  
Required Background: Automotive Body Technology I

In this course, students are taught to repair, mask, and refinish auto body components and entire vehicles. In addition, they use spray guns and personal safety equipment, apply undercoats and topcoats, work with a variety of materials, and gain career skills. Students continue to improve skills in welding and body repair.

**Schools offering course: NSHS**

‡AUTO BODY TECHNOLOGY III – COLLISION AND REPAIR AND PAINTING AND REFINISHING 8678  
Grade 12 4 Credits  
Required Background: Automotive Body Technology II

Students further apply the tasks/competencies learned in Auto Body Technology 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 this program sequence will be prepared to take and pass the respective ASE exam.

**Schools offering course: NSHS**

### AUTOMOTIVE TECHNOLOGY

Courses are taught by Automotive Service Excellence (ASE) Certified Instructors

*The Automotive Technology program is a 3-year program with mastery of each task for job entry-level skills as a priority. The program is open to 10th, 11th, and 12th graders. Students will complete an application and a pre-test prior to being admitted to Automotive Technology I (8506). Students will have the opportunity to apply for job shadowing and internships programs with local automotive businesses.*

‡AUTOMOTIVE TECHNOLOGY I • 8502  
Grades 10-11 1 Credit

Students learn all aspects of repair, safety, and customer service by concentrating on the four primary ASE certified areas: Brakes, Steering and Suspension, Electrical/Electronics and light duty vehicle repair.

**Schools offering course: BPHS, NSHS, SHS**

‡AUTOMOTIVE TECHNOLOGY II 8507  
Grades 11-12 2 Credits  
Required Background: Automotive Technology I

Students will learn to repair fuel, electrical, cooling, brake, drive train, and suspension systems. Instruction is also given in the adjustment and repair of individual components and systems such as radiators, transmission, and fuel injectors. Students will have the opportunity to apply for job shadowing and internships with local automotive businesses through the Automotive Youth Educational Systems (AYES) program.

**Schools offering course: BPHS, NSHS, SHS**

‡AUTOMOTIVE TECHNOLOGY III 8508  
Grade 12 2 Credits  
Required Background: Automotive Technology II

Students will continue to master skills related to suspension and steering, brakes, electrical/ electronic systems, and engine performance.

**Schools offering course: BPHS, NSHS, SHS**

‡BARBERING I • 8743  
Grade 11 3 Credits  
(Grade 10, if space available)  
Required Background: Regular attendance is required in order to meet the clinical lab hours.

Barbering is the study of hair, scalp, and skin. Students 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 students to work or apprentice in a local barber shop or beauty salon.

**Schools offering course: MVHS**



**‡BARBERING II** 8744  
**Grade 11-12** 4 Credits  
**Required Background:** *Passing score of 70% Barbering I and regular attendance is required to meet clinical hours.*

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.

**Schools offering course:** *MVHS*

**‡CABINETMAKING I •** 8604  
**Grades 9-11** 1 Credit

Students learn workshop and tool safety and employability skills as they practice reading blueprints; estimating and selecting materials; cutting and shaping stock; assembling, fastening, and installing components; and finishing surfaces. The technical, problem-solving, leadership, and creative skills learned in cabinetmaking can be applied in industries well beyond the construction trades and professions and prepare the student for lifelong learning and success.

**Schools offering course:** *NSHS*

**‡CABINETMAKING II** 8605  
**Grades 10-12** 2 Credits  
**Required Background:** *Cabinetmaking I*

Students continue to learn workshop and tool safety and enhance their employability skills as they interpret blueprints; estimate and select materials; cut and shape stock; assemble, fasten, and install components; install interior finishes; apply wood veneers and plastic laminates; finish surfaces; and transport and install cabinets. The technical, problem-solving, leadership, and creative skills learned in Cabinetmaking can be applied in industries well beyond construction trades and professions and can prepare the student for lifelong learning and success.

**Schools offering course:** *NSHS*

**‡CARPENTRY I •** 8601  
**Grades 9-10**  
**BPHS – (140 hours) 1 Credit**  
**SHS – (280 hours) 2 Credits**  
**Recommended Background:** *Construction Trades*

Instruction in this course includes the theory and practical application of blueprints and building plans, estimating materials, and finishing of a structure. Proper use of power tools will be demonstrated. Students are provided the opportunity to work on the construction of a new home through the BOOTS program (Bringing Occupational Opportunities to Students). Students must successfully complete the 10-hour OSHA Safety Course and comply with OSHA standards throughout the course to be eligible for Carpentry II. This course will be open to highly qualified 9th graders who are interested in pursuing a future in the BOOTS program. Please note there are some restrictions on power tool usages for 9th grades.

**Schools offering course:** *BPHS, SHS*

**‡CARPENTRY II** 8602  
**Grades 10-12** 2 Credits  
**Required Background:** *Carpentry I*

This course includes instruction in the skills that provide additional practical experiences related to the complete structural aspect of a building or dwelling and its finishing work. Students will be expected to comply with all OSHA and class safety practices. Students are provided the opportunity to work on the construction of a new home through the Bringing Occupational Opportunities to Students (BOOTS) program. Students completing Carpentry I as a 9th grader will be eligible for Carpentry II as a 10th grader with no restrictions on power tool usage.

**Schools offering course:** *BPHS, SHS*

**CARPENTRY III** 8603  
**Grade 11-12** 2 Credits  
**Required Background:** *Carpentry II*

This course expands on Carpentry I and II. Qualified students have the opportunity for work-based experience and to work on the construction of a new home through the Bringing Occupational Opportunities to Students (BOOTS) program. Construction management skills will also be stressed throughout the duration of the school year with the intent for students to enter the construction business upon completion. OSHA and class safety practices are mandatory and enforced.

**Schools offering course:** *SHS*

**CONSTRUCTION TRADES I** 9071  
**Grades 9-10** 1 Credit

This introductory course is for students considering a career in the construction industry. Construction Trades prepares students to construct buildings, and other structures using materials such as metal, wood, stone, brick, concrete and composition substances. Students focus on completing a 9 weeks rotation exploring each of the following trade areas: masonry, carpentry, electricity and the last rotation will be chosen by the student according to his/her interests. Core safety will be taught in all areas.

**Note:** *Formerly Building Trades I*

**Schools offering course:** *SHS*

**‡COSMETOLOGY I •** 8745  
**Grade 10-11** 3 Credits  
**Required Background:** *Regular attendance is required in order to meet the clinical lab hours*

In this course, students study and prepare in a clinical lab setting, using mannequins, and live models for skill practice. Students develop skills in hair shaping, finger waves, manicuring, and pedicures. Students also learn the principles of sterilization, sanitation, and bacteriology. They develop required safety procedures and study professional ethics. Regular attendance is essential to be successful in this program.

**NOTE:** *(Grade 10, if space available)*

**Schools offering course:** *MVHS, SHS*

**‡COSMETOLOGY II** **8746**  
**Grades 11-12** **4 Credits**  
**Required Background:** *Passing score of 70% or above in Cosmetology I & regular attendance is required to meet clinical hours*

Students develop skills and technical knowledge relating to hair coloring, hair pressing, facials, cosmetic make-up, and selection of commercial materials. Beauty salon management procedures are also studied. Upon successful completion of required competency performance and hours, students are prepared to take the Virginia Board of Cosmetology licensing exam.

**Schools offering course:** *MVHS, SHS*

**CRIMINAL JUSTICE I** **8702**  
**Grades 11-12** **1 Credit**

Students learn the principles, techniques, and practices for pursuing careers within the criminal justice services system. Also provided in this course is an overview of the conflicts, coordination, and interdependency of the major components of the criminal justice system.

**Schools offering course:** *BPHS, NSHS*

**CRIMINAL JUSTICE II** **8703**  
**Grades 11-12** **1 Credit**  
**Required Background:** *Criminal Justice I*

Students will expand upon the course content developed in Criminal Justice I. In addition, this course introduces students to a career in law enforcement. Topics may include crime scene investigation, use of force continuum, criminal law court system and procedures, police concepts and skills, corrections concepts and skills, communication, security, and understanding and working with special populations.

**Schools offering course:** *BPHS, NSHS*

**DRAFTING I (Fundamentals)** **8530**  
**Grades 9-11** **1 Credit**

This course is recommended for students who are interested in technical fields such as architecture, engineering, construction. The course emphasizes fundamental mechanical drawing concepts and techniques. The projection, visualization, and interpretation of two-dimensional and three-dimensional objects are explored. The student is also introduced to computer-aided drafting (CAD) using Autodesk drafting software. This course is a prerequisite for all other drafting courses.

**Schools offering course:** *SHS*

**DRAFTING II (Advanced Mechanical)** **8531**  
**Grades 10-12** **2 Credits**  
**Required Background:** *Drafting I*

This course focuses on creating mechanical drawings for manufacturing purposes. New skills learned include developing auxiliary views, reading tolerances, applying & interpreting weld symbols, specifying fasteners, additive manufacturing (3D printing) and the logic of mechanical assembly. Using 2D and 3D computer-aided design (CAD) software is integral to this course. Portfolio projects will be interspersed throughout the course, culminating in a design project of the student's own design solutions. All students will take the ADDA International Drafter Certification Exam as part of this program.

**Schools offering course:** *SHS*

**DRAFTING III (Architectural Drawing)** **8532**  
**Grades 11-12** **2 Credits**  
**Required Background:** *Drafting II*

This course focuses on the creation of code compliant architectural drawings focusing on residential design. The student learns to prepare site plans, floor and foundation plans, electrical plans, elevations, wall sections and structural details. Both manual and CAD techniques are taught and utilized, with the focus on CAD using Autodesk design software. Portfolio projects will be interspersed throughout the course, culminating with the student's own residential house design. All students will take the ADDA International Architectural Drafter Certification Exam as part of this program.

**Schools offering course:** *SHS*

**‡ELECTRICITY I •** **8533**  
**Grades 9-11** **2 Credits**  
**Recommended:** *Construction Trade and Algebra I, Part I*

Students develop the skills and technical knowledge relating to test equipment, electrical circuits, single phase alternating current, residential wiring, estimating cost of labor and material, low voltage systems, wiring single family dwellings, and the use of the National Electrical Code. Students learn basic electrical terms. Students are provided the opportunity to work on the construction of a new home through the BOOTS program (Bringing Occupational Opportunities to Students). Students must successfully complete the 10-hour OSHA Safety Course and comply with OSHA standards throughout the course to be eligible for Electricity II.

**Schools offering course:** *SHS*

**‡ELECTRICITY II** **8534**  
**Grades 10-12** **2 Credits**  
**Required Background:** *Electricity I*

Students develop the skills and technical knowledge of commercial wiring, installation of and maintaining conduit systems, appliance and motor service, industrial wiring, control wiring, transformers, three-phase circuitry, and low voltage control systems. Students are provided the opportunity to work on the construction of a new home through the Bringing Occupational Opportunities to Students (BOOTS) program. OSHA and class safety practices are mandatory and enforced.

**Schools offering course:** *SHS*

**‡ELECTRICITY III** **8535**  
**Grade 11-12** **2 Credits**  
**Required Background:** *Electricity II*

This course expands on Electricity I and II. Qualified students have the opportunity for work-based experience and to work on the construction of a new home through the Bringing Occupational Opportunities to Students (BOOTS) program. OSHA and class safety practices are mandatory and enforced.

**Schools offering course:** *SHS*

**‡FIREFIGHTING I •** **8705**  
**Grades 11-12** **2 Credits**  
**Required Background:** *Students must be at least 16 years old by the first day of the course offering. Enrollment also requires parental consent. Additional requirements, including CPR, HAZMAT operations, and Mayday Awareness, are stipulated for those students seeking NFPA Firefighter I certification.*

Firefighting is one of the most dangerous jobs in the world and, therefore, requires complete discipline and attention to achieving the academic and professional standards necessary to successfully fight live fires, address hazardous-materials incidents, and conduct search-and-rescue operations. Students will become familiar with the procedures, equipment, and technologies used by current fire departments. This course challenges students academically, mentally, and physically and meets the standards of National Fire Protection Association (NFPA) 1001-2013 leading to Firefighting I certification. Students must enroll in FFI (Semester I) and FFII (Semester II) consecutively in the same year.

**‡FIREFIGHTING II •** **8706**  
**Grades 11-12** **2 Credits**  
**Note:** *See description above.*  
**Required Background:** *Completion of Firefighting I and passing Certification Exam*

**‡GRAPHIC IMAGING TECHNOLOGY I •** **8660**  
**Grades 9-11** **2 Credits**

This course introduces students to the various areas of the printing field. These areas will include layout and design, desktop publishing, film processing, plate making, offset press operation, bindery, and digital photography. Students focus on the history of graphic imaging.

**Schools offering course:** *NSHS*

**‡GRAPHIC IMAGING TECHNOLOGY II** **8661**  
**Grades 10-12** **2 Credits**  
**Required Background:** *Graphic Imaging Technology I*

This course introduces students to the various areas of the printing field. In first semester, students will develop skills relating to desktop publishing, layout and design, film processing, plate-making, offset press operation, bindery, screen printing, and digital photography. In the second semester, students will apply all skills learned in a production setting.

**Schools offering course:** *NSHS*

**‡MASONRY I •** **8512**  
**Grades 9-11** **2 Credits**  
**Recommended Background:** *Construction Trades*

Students develop skills and technical knowledge for laying block and brick, concrete construction, reading blueprints, completing straight wall and corner work, as well as estimating labor and materials. Students are provided the opportunity to work on the construction of a new home through the BOOTS program (Bringing Occupational Opportunities to Students). Students must successfully complete the 10-hour OSHA Safety Course and comply with OSHA standards throughout the course to be eligible for Masonry II.

**Schools offering course:** *SHS*

**‡MASONRY II** **8513**  
**Grades 10-12** **2 Credits**  
**Required Background:** *Masonry I*

A continuation of Masonry I, students are given additional instruction in the knowledge and skills of mixing and pouring concrete, building arches and columns, stone masonry and required competencies for masonry workers. Students are provided the opportunity to work on the construction of a new home through the Bringing Occupational Opportunities to Students (BOOTS) program. OSHA and class safety practices are mandatory and enforced.

**Schools offering course:** *SHS*

**‡MASONRY III** **8514**  
**Grade 11-12** **2 Credits**  
**Required Background:** *Masonry II*

This course expands on Masonry I and II. Qualified students have the opportunity for off-site work-based experience and to work on the construction of a new home through the Bringing Occupational Opportunities to Students (BOOTS) program. Fundamentals of construction management will be emphasized, including planning, estimating and problem solving on an actual construction jobsite. OSHA and class safety practices are mandatory and enforced. Hilti certification will be offered in addition to state-approved industry credential.

**Schools offering course:** *SHS*

**SMALL ENGINE TECHNOLOGY I** **8725**  
**Grades 9-12** **1 Credit**

Students will study the theory, repair and applications of small 4 stroke/cycle internal combustion engines. Students will operate a Small Engine Repair business, repairing customer's outdoor power equipment. Units will cover safety, engine theory, engine troubleshooting, engine repair, parts location/order, small business operation.

**Schools offering course:** *SHS*

**SMALL ENGINE TECHNOLOGY II** **8726**  
**Grades 10-12** **2 Credits**  
**Required Background:** *Small Engine Technology 1*

Students will expand on the study of small engine repair from Small Engine Repair I. Units of study will include two-stroke/cycle engine theory and repair, engine rebuild, engine modifications, hydraulics, chain saw repair and maintenance, string trimmer repair and maintenance, go-cart and mini-bike repair, outdoor power equipment business operation.

**Schools offering course:** *SHS*

**TELEVISION AND MEDIA PRODUCTION I**  
**Grades 9-12**

**8688**  
**1 Credit**

period to activities occurring in the evening and on weekends.  
**Schools offering course: BPHS, NSHS**

This course combines public speaking and other communication skills with the study of video technology primarily used in broadcast journalism. Students receive training in written and verbal communication as it applies to broadcast journalism as well as instruction in the use and maintenance of electronic equipment used in broadcast television. Students will produce a variety of programming, including radio spots, live television interviews, in-house news broadcasts, broadcast television packages, and a variety of live coverage videography.

**Note: Course requires time outside the scheduled class period for activities occurring in the evening and on weekends.**

**TELEVISION AND MEDIA PRODUCTION II**  
**Grades 10-12**

**8689**

**(140 Hours) 1 Credit**  
**(280 Hours) 2 Credits**

**Required Background: Television and Media Production I**

This course is designed for the student interested in pursuing a career in broadcast technology or broadcast journalism. Experiences will be structured to simulate a private local company in the community, allowing the students to take on the responsibility of the day-to-day tasks. This simulation could include coverage of school and community events, developing a clientele through the creation of promotional and informational presentations, and daily production of live announcements for the school.

**Note: Course requires time outside the scheduled class period for activities occurring in the evening and on weekends.**

**TELEVISION AND MEDIA PRODUCTION III**  
**Grades 11-12**

**8690**

**(140 Hours) 1 Credit**  
**(280 Hours) 2 Credits**

**Required Background: Television and Media 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. They will investigate the dynamic media production.

**Note: Course requires time outside the scheduled class period for activities occurring in the evening and on weekends.**

**TELEVISION AND MEDIA PRODUCTION APPRENTICESHIP**  
**Grade 12**

**8691**  
**1 Credit**

**Required Background: Television and Media Production II**

This course is designed to provide students with the practical and principle knowledge of community television production through participation in the development of programming for the Stafford Educational Channel. Course content will emphasize the exploration of advanced concepts and processes involved in managing and maintaining a PEG television station to include video and audio media production and editing with emphasis on hands-on experience in studio and field production, as well as, video and audio post-production. Students will also qualify for employment opportunities as Video Production Technicians within the Stafford County Public School System.

**Note: The work in Television and Media Production Apprenticeship requires that students be willing and able to devote considerable time outside of the scheduled class**

## INDEX OF COURSES

*SCHOOL - ALL = 5 High Schools    B = Brooke Point    C = Colonial Forge    M = Mt. View    N = North Stafford    S = Stafford High						
*SCHOOL	COURSE #	COURSE	CREDIT	GRADE	RECOMMENDED BACKGROUND	PAGE
<b>ENGLISH</b>						
<b>GENERAL COURSE SEQUENCE FOR ENGLISH</b>						
ALL	1130	English 9	1.0	9		29
ALL	1130H	Honors English 9	1.0	9	"B" or higher earned in previous English course or teacher recommendation	29
ALL	1140	English 10	1.0	10	English 9	29
ALL	1140H	Honors English 10	1.0	10	"B" or higher earned in previous English course or teacher recommendation	29
ALL	1150	English 11	1.0	11	English 10	29
ALL	1150H	Honors English 11	1.0	11	"B" or higher earned in previous English course or teacher recommendation	29
ALL	1160	English 12	1.0	12	English 11	29
<b>AP/DE COURSE SEQUENCE FOR ENGLISH</b>						
B-C-N-S	1196	AP English 11: Language and Composition	1.0	11	Honors English 9 and 10 Honors/teacher recommendation	29
C-N-S	1195	AP English: Literature and Composition	1.0	12	AP English Language and Composition OR Honors English 11 Honors/teacher recommendation	29
ALL	1177D	DE Honors English Composition	1.0	12	Honors English 11 /teacher recommendation	29
<b>THE COMMONWEALTH GOVERNOR'S SCHOOL COURSES FOR ENGLISH</b>						
C-N-S	1130G	English 9: Honors English 9	1.0	9		29
C-N-S	1140G	English 10: Honors English 10	1.0	10	English 9	30
C-N-S	1196G	English 11: AP English Language and Composition	1.0	11	English 10	30
C-N-S	1195G	English 12: AP English Literature and Composition	1.0	12	English 11	30
<b>IB COURSE SEQUENCE FOR ENGLISH</b>						
B-M	IB1151 IB1161	IB Language and Literature (HL)	1.0 per year	11-12	"B" or higher in previous Honors English courses for IB year one. "C" or higher in IB year one to go on to IB year two.	30
<b>ELECTIVE ENGLISH COURSES</b>						
ALL	1300	Oral Communication	1.0	10-12	English 9	30
ALL	1200	Journalism I	1.0	9-12	Currently enrolled in English 9 or above	30
ALL	1210	Journalism II	1.0	10-12	Journalism I and service on the school's publication staff	30
ALL	1211	Journalism III	1.0	11-12	Journalism II and service on the school's publication staff	30
ALL	1212	Journalism IV	1.0	12	Journalism III and service on the school's publication staff	30



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*SCHOOL	COURSE #	COURSE	CREDIT	GRADE	RECOMMENDED BACKGROUND	PAGE
ALL	1215	Photojournalism I	1.0	9-12	Teacher recommendation	30
ALL	1216	Photojournalism II	1.0	10-12	Teacher recommendation	31
ALL	1217	Photojournalism III	1.0	11-12	Teacher recommendation and service on the school yearbook staff	31
ALL	1218	Photojournalism IV	1.0	12	Teacher recommendation and service on the school yearbook staff	31
ALL	1171	Creative Writing I	1.0	10-12	Keen interest in writing	31
ALL	1165	Creative Writing II	1.0	11-12	Creative Writing I	31
ALL	1181-1184	Reading Across the Content Areas I-IV	1.0	9-12		31
ALL	9491-9494	Developmental Reading	1.0	9-12		31
ALL	1515-1516	English Review	1.0	11-12	Assigned based on SOL Language Arts scores	31
HISTORY AND SOCIAL SCIENCES						
GENERAL COURSE SEQUENCE FOR HISTORY AND SOCIAL SCIENCES						
ALL	2215	World History and Geography I	1.0	9		32
ALL	2215H	Honors World History and Geography I	1.0	9	Successful completion of previous Social Studies and English courses	32
ALL	2216	World History and Geography II	1.0	10		32
ALL	2216H	Honors World History and Geography II	1.0	10	Successful completion of World History I	32
ALL	2360	Virginia and U.S. History	1.0	11		32
ALL	2440	Virginia and U.S. Government	1.0	12		32
AP COURSE SEQUENCE FOR HISTORY AND SOCIAL SCIENCES						
B-C-N-S	2380	AP World History	1.0	10	Successful completion of prior social studies and English coursework	32
ALL	2319	AP United States History	1.0	11-12	Successful completion of prior social studies and English coursework	32
ALL	2450	AP United States Government and Politics/AP Comparative Government and Politics	1.0	12	Successful completion of prior social studies and English coursework	32
B-C-N-S	2445	AP United States Government/Politics	1.0	12	Successful completion of prior social studies and English coursework	32
ALL	2212	AP Human Geography	1.0	9-12	Successful completion of prior social studies and English coursework	33
C-N-S	2902	AP Psychology	1.0	11-12	Successful completion of prior social studies and English coursework	33
C-N	2802	AP Microeconomics	1.0	11-12	Successful completion of prior social studies and English coursework	33
C-N	2803	AP Macroeconomics	1.0	11-12	Successful completion of prior social studies and English coursework	33
C-M-N-S	2399	AP European History	1.0	10-12	World History II or concurrently with AP World History	33



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<b>THE COMMONWEALTH GOVERNOR'S SCHOOL COURSES FOR HISTORY AND SOCIAL SCIENCES</b>						
C-N-S	2399G	AP European History	1.0	9		33
C-N-S	2445G	AP U.S. Government	1.0	10		33
C-N-S	2319G	AP U.S. History	1.0	11-12		33
C-N-S	2212G	AP Human Geography	1.0	12		33
<b>IB COURSE SEQUENCE FOR HISTORY AND SOCIAL SCIENCES</b>						
B-M	IB2806	IB Economics (SL) with Personal Finance	1.0	11-12		34
B-M	IB1197 IB1198	IB Theory of Knowledge	1.0 per year	11-12	"C" or higher in IB year one to go on to IB year two.	34
B-M	IB2360	IB History (HL)	1.0 per year	11	Successful completion of Honors World History with a "B" or higher and preferably AP US Government with a "C" or higher. "C" or higher in IB year one to go on to IB year two.	34
B-M	IB2361	IB History (HL)	1.0 per year	12	Successful completion of Honors World History with a "B" or higher and preferably AP US Government with a "C" or higher. "C" or higher in IB year one to go on to IB year two.	34
B-M	IB2847	IB Social and Cultural Anthropology (SL)	1.0	11-12	Interest in the subject and completion of previous social studies course with a "B" or better.	34
B-M	IB2903	IB Psychology (SL)	1.0	11-12	Interest in the subject and completion of previous social studies course with a "B" or better.	34
B-M	IB6135	IB Business Management (SL)	1.0	11-12	"B" or higher in prior business math courses recommended	34
<b>ELECTIVE COURSES FOR HISTORY AND SOCIAL SCIENCES</b>						
ALL	2998	Exploring Local History	1.0	11-12		35
ALL	2996	Global Issues	1.0	11-12	Successful performance in World History/World Geography	35
ALL	2500	Sociology	1.0	10-12	Successful performance in English and Social Science courses	35
ALL	2900	Psychology	1.0	10-12		35
<b>MATHEMATICS</b>						
<b>GENERAL COURSE SEQUENCE FOR MATHEMATICS</b>						
ALL	3131	Algebra I, Part I	1.0	9		36
ALL	3132	Algebra I, Part II	1.0	9-11	Completion of Algebra I Part I	36
ALL	3130	Algebra I	1.0	9-10		36
C-N-S	3130H	Honors Algebra I	1.0	9	Successful Completion of Math 8 with a "B" or higher	36
ALL	3144	Geometry, Part I	1.0	9-11	Successful completion of Algebra I	36
ALL	3145	Geometry, Part II	1.0	10-12	Successful completion of Geometry, Part I	36

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ALL	3143	Geometry	1.0	9-12	Successful completion of Algebra I	36
ALL	3143H	Honors Geometry	1.0	9-10	Successful completion of Algebra 1 with a "B" or greater and teacher recommendation	36
ALL	3135	Algebra II	1.0	10-12	Successful completion of Geometry	37
ALL	3135H	Honors Algebra II	1.0	9-10	Successful Completion of Geometry with a "B" or higher and teacher recommendation	37
ALL	3160	Algebra III with Trigonometry	1.0	11-12	Successful completion of Algebra II	37
ALL	3134	Algebra, Functions, and Data Analysis	1.0	10-12	Successful completion of Algebra and Geometry. Course must be taken before Algebra II	36
ALL	3162	Math Analysis with Trigonometry	1.0	10-12	"B" or higher in Algebra II with teacher recommendation	37
ALL	3190	Statistics/Probability with Discrete Topics	1.0	11-12	Successful completion of Algebra II	37
AP COURSE SEQUENCE FOR MATHEMATICS						
ALL	3192	AP Statistics	1.0	11-12	Successful completion of Algebra II	37
ALL	3177	AP Calculus AB	1.0	11-12	Successful completion of Math Analysis with Pre-Calculus	37
ALL	3178	AP Calculus BC	1.0	11-12	Successful completion of Math Analysis with Pre-Calculus	37
ALL	3185	AP Computer Science A	1.0	10-12	Successful completion of Geometry with a "B"	37
THE COMMONWEALTH GOVERNOR'S SCHOOL COURSES FOR MATHEMATICS						
C-N-S	3135G	Algebra II Honors	1.0	9	Algebra I	37
C-N-S	3143G	Honors Geometry with Trigonometry	1.0	10	Algebra I, Algebra II	38
C-N-S	3162G	Honors Math Analysis w/Discrete Topics	1.0	10-11	Algebra I, Geometry, Algebra II	38
C-N-S	3178G	AP Calculus BC	1.0	11-12		38
C-N-S	3192G	AP Statistics	1.0	11-12		38
IB COURSE SEQUENCE FOR MATHEMATICS						
B-M	IB3185	IB Computer Science (SL)	1.0	11-12		38
B-M	TBD	IB Mathematics: Applications and Interpretation (SL)	1.0	11		38
B-M	TBD	IB Mathematics: Analysis (SL)	1.0	11		38
B-M	TBD	IB Mathematics: Applications and Interpretation (HL)	1.0	11		38
B-M	TBD	IB Mathematics: Analysis (HL)	1.0	11		39
B-M	IB3163 IB3196	IB Math Studies (SL)	1.0 per year	11-12	"B" or higher in Algebra I, Honors Geometry and Honors Algebra II courses for IB year one. "C" or higher in IB year one to go on to IB year two.	39
B-M	IB3198	IB Mathematics 12 (SL)	1.0	12	"C" or higher in IB Mathematics 11	39

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M	IB3197	IB Mathematics 12 (HL)	1.0	12	"C" or higher in IB Mathematics 11 and teacher recommendation	39
ELECTIVE COURSES FOR MATHEMATICS						
B-C-N-S	3200-3201	Algebra Readiness	1.0	9-10	Assigned based on SOL Mathematics scores	39
ALL	3199	AP Computer Science Principles	1.0	9-12		39
SCIENCE						
GENERAL COURSE SEQUENCE FOR SCIENCE						
ALL	4210	Earth Science	1.0	9-10	May be taken concurrently with Biology	40
ALL	4210H	Honors Earth Science	1.0	9	May be taken concurrently with Biology	40
ALL	4310	Biology	1.0	9-10	May be taken concurrently with Earth Science	40
ALL	4310H	Honors Biology	1.0	9-10	May be taken concurrently with Earth Science	40
ALL	4410	Chemistry	1.0	10-12	Algebra II must either be completed or taken concurrently	40
ALL	4410H	Honors Chemistry	1.0	10-11	Algebra II must either be completed or taken concurrently.	40
ALL	4510	Physics	1.0	11-12	Algebra II or higher must be completed or taken concurrently	40
ALL	4510H	Honors Physics	1.0	11-12	Algebra II or higher must be completed or taken concurrently	40
AP/DE COURSE SEQUENCE FOR SCIENCE						
C-N-S	4370/ 4370L	AP Biology/Lab	2.0	10-12	Successful completion of Biology and Chemistry	40
C-N-S	4470/ 4470L	AP Chemistry/Lab	2.0	11-12	Successful completion of Algebra II or higher	41
C-N-S	4573/ 4573L	AP Physics 1/Lab	2.0	11-12	Successful completion of Geometry. No prior coursework in physics is necessary.	41
TBD	4574/ 4574L	AP Physics 2/Lab	2.0	12	Concurrent enrollment with Pre-Calculus or higher. Successful completion of AP Physics 1	41
C-N-S	4270	AP Environmental Science	1.0	10-12	Successful completion of Algebra 1	41
TBD	4320D	DE Honors Biology	1.0	10-12	Successful completion of Biology	41
TBD	4420D	DE Honors Chemistry	1.0	11-12	Successful completion of Chemistry	41
THE COMMONWEALTH GOVERNOR'S SCHOOL COURSES FOR SCIENCE						
C-N-S	4270G	AP Environmental Science	1.0	9	Successful of completion of or concurrent enrollment in Geometry or Algebra II.	42
C-N-S	4370G	AP Biology	1.0	10	"B" or higher in Biology. May be taken concurrently with Chemistry	42
C-N-S	4420G	DE Chemistry	1.0	11		42
C-N-S	4573G	AP Physics 1	1.0	12		42

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<b>IB COURSE SEQUENCE FOR SCIENCE</b>						
B-M	IB4380 IB4390	IB Biology (HL)	1.0 per course	11-12	"B" or higher in Honors Biology, Chemistry, Algebra I and II courses for IB year one. "C" or higher in IB year one to go on to IB year two	42
B	IB4380	IB Biology 11 (SL)	1.0	11	"B" or higher in Honors Biology, Chemistry, Algebra I and II courses for IB year one. "C" or higher in IB year one to go on to IB year two. May be taken concurrently	42
B	IB4381	IB Biology 12 (SL)	1.0	12	"C" or higher in IB year one	42
B-M	IB4490 IB4491	IB Chemistry (HL)	1.0 per course	11-12	"B" or higher in Honors Biology, Chemistry, Algebra I and Algebra II for year one. "C" or higher in IB year one to go on to IB year two.	43
B	IB4480	IB Chemistry 11 (SL)	1.0	11	"B" or higher in Honors Biology, Chemistry, Algebra I and Algebra II	43
B	IB4481	IB Chemistry 12 (SL)	1.0	12	"C" or higher in IB Chemistry 11	43
B	IB4590 IB4591	IB Physics (HL)	1.0 per course	11-12	"B" or higher in Honors Physics, Algebra I and Algebra II. "C" or higher in IB year one to go on to IB year two	43
B-M	IB4590	IB Physics 1 (SL)	1.0	11	"B" or higher in Honors Physics, Algebra I and Algebra II	43
B-M	IB4590	IB Physics 2 (SL)	1.0	12	"C" or higher in IB Physics 1	43
B-M	IB4281	IB Environmental Systems and Societies (SL)	1.0	11-12	Completion of Honors Biology or Honors Chemistry with a grade of "B" or higher	43
<b>ELECTIVE COURSES FOR SCIENCE</b>						
ALL	4265	Environmental Science	1.0	9-10		43
ALL	4340	Biology II: Ecology	1.0	11-12	Successful completion of Earth Science and Biology	44
ALL	4330	Biology II: Anatomy and Physiology	1.0	11-12	"B" or higher in Biology. Chemistry must either be completed or taken concurrently	44
ALL	4240	Earth Science II: Geology	1.0	10-12	"B" or higher in Earth Science; may be taken concurrently with Biology	44
ALL	4250	Earth Science II: Oceanography	1.0	11-12	"C" or higher in Earth Science, Biology, and Chemistry	44
<b>WORLD LANGUAGE</b>						
<b>GENERAL COURSES FOR WORLD LANGUAGE</b>						
ALL	5990	American Sign Language I	1.0	10-12		45
ALL	5995	American Sign Language II	1.0	10-12	Successful completion of ASL I	45
C-M-N-S	5997	American Sign Language III	1.0	11-12	Successful completion of ASL II	45
ALL	5110	French I	1.0	8-12		45
ALL	5120	French II	1.0	9-12	Successful completion of French I	45

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*SCHOOL	COURSE #	COURSE	CREDIT	GRADE	RECOMMENDED BACKGROUND	PAGE
ALL	5130	French III	1.0	10-12	Successful completion of French II	45
ALL	5140	French IV	1.0	11-12	Successful completion of French III	45
ALL	5210	German I	1.0	8-12		45
ALL	5220	German II	1.0	9-12	Successful completion of German I	45
ALL	5230	German III	1.0	10-12	Successful completion of German II	46
ALL	5240	German IV	1.0	11-12	Successful completion of German III	46
ALL	5310	Latin I	1.0	8-12		46
ALL	5320	Latin II	1.0	9-12	Successful completion of Latin I	46
ALL	5330	Latin III	1.0	10-12	Successful completion of Latin II	46
ALL	5340	Latin IV	1.0	11-12	Successful completion of Latin III	46
ALL	5510	Spanish I	1.0	8-12		46
ALL	5520	Spanish II	1.0	9-12	Successful completion of Spanish I	46
ALL	5530	Spanish III	1.0	10-12	Successful completion of Spanish II	46
ALL	5540	Spanish IV	1.0	11-12	Successful completion of Spanish III	46
ALL	5511	Spanish for Fluent Speakers I	1.0	9-12	Students will take an assessment to ensure proper placement according to prior knowledge and study of Spanish	46
ALL	5521	Spanish for Fluent Speakers II	1.0	10-12	Students will take an assessment to ensure proper placement according to prior knowledge and study of Spanish	47
AP COURSES FOR WORLD LANGUAGE						
C-N-S	5170	AP French	1.0	11-12	"C" or higher in three sequential levels of the target language	47
C-N-S	5270	AP German	1.0	11-12	"C" or higher in three sequential levels of the target language	47
C-N-S	5370	AP Latin (Virgil)	1.0	11-12	"C" or higher in three sequential levels of the target language	47
C-N-S	5570	AP Spanish Language	1.0	11-12	"C" or higher in three sequential levels of the target language	47
IB COURSES FOR WORLD LANGUAGE						
B-M	IB5542	IB Spanish B IV	1.0	10 or 11	"B" or higher in three sequential levels of the target language	47
B-M	IB5142	IB French B IV	1.0	10 or 11	"B" or higher in three sequential levels of the target language	47
B-M	IB5242	IB German B IV	1.0	10 or 11	"B" or higher in three sequential levels of the target language	47

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*SCHOOL	COURSE #	COURSE	CREDIT	GRADE	RECOMMENDED BACKGROUND	PAGE
B-M	IB5552	IB Spanish B V (SL)	1.0	11 or 12	"C" or higher in previous IB target language B course	47
B-M	IB5152	IB French B V (SL)	1.0	11 or 12	"C" or higher in previous IB target language B course	47
B-M	IB5252	IB German B V (SL)	1.0	11 or 12	"C" or higher in previous IB target language B course	47
B-M	IB5562	IB Spanish B V (HL)	1.0	12	"B+" or higher in previous IB target language B course and Teacher Recommendation	47
B-M	IB5162	IB French B V (HL)	1.0	12	"B+" or higher in previous IB target language B course and Teacher Recommendation	47
B-M	IB5262	IB German B V (HL)	1.0	12	"B+" or higher in previous IB target language B course and Teacher Recommendation	47
B-M	IB5340 IB5350	IB Latin (SL)	1.0 credit per year	11-12	"B" or higher in three sequential levels of Latin courses for IB year one. "C" or higher in IB year one to go on to IB year two	48
B-M	IB5541 IB5551	IB Spanish A (SL)	1.0 credit per year	11-12		48
FINE AND PERFORMING ARTS						
GENERAL COURSES FOR ART						
ALL	9120	Art Foundation	1.0	9-12		49
ALL	9130	Intermediate Art	1.0	10-12	Successful completion of Art Foundation	49
N-S	9130H	Honors Intermediate Art II	1.0	10-12	Successful completion of Art Foundation, instructor's recommendation; identified or eligible for identification as gifted in visual arts or portfolio review by high school staff	49
ALL	9194	Art III: 2-D Design	1.0	11-12	Intermediate Art or teacher recommendation	49
B-C-N-S	9196	Art III: 3-D Design	1.0	11-12	Intermediate Art or teacher recommendation	49
ALL	9145	Art IV	1.0	11-12	Successful completion of Art III	49
ALL	9170	Art History (Non-Studio Elective)	1.0	10-12		49
S	9190	Photography & Graphic Design I	1.0	9-12	Art Foundation or teacher recommendation	50
S	9191	Photography & Graphic Design II	1.0	10-12	Successful completion of Photography & Graphic Design I	50
S	9192	Photography & Graphic Design III	1.0	10-12	Successful completion of Photography & Graphic Design II	50
GENERAL COURSES FOR BAND						
ALL	9232	Concert Band	1.0	9-12	Previous band experience at the middle school level required	50
ALL	9233	Symphonic Band	1.0	9-12	One or more years of previous band experience; by audition	50
ALL	9250	Percussion Ensemble	1.0	9-12	Previous band experience is required	50
ALL	9234	Wind Ensemble	1.0	9-12	By audition only	51



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*SCHOOL	COURSE #	COURSE	CREDIT	GRADE	RECOMMENDED BACKGROUND	PAGE
ALL	9297	Jazz Ensemble	1.0	10-12	One or more years of previous band experience; by audition	51
C	9296	Jazz Workshop	1.0	10-12	One or more years of previous band experience; by audition	51
GENERAL COURSES FOR CHORUS						
ALL	9280	Vocal Ensemble	1.0	9-12		51
ALL	9260	Treble Chorus	1.0	9-12		51
ALL	9285	Chorale	1.0	9-12	Auditions may be required	51
ALL	9289	Madrigals	1.0	10-12	By audition only	51
ALL	9290	Jazz Choir	1.0	9-12	Auditions may be required	51
ALL	9292	Chamber Choir	1.0	10-12	By audition only	51
GENERAL COURSES FOR ORCHESTRA						
ALL	9237	Concert Orchestra	1.0	9-12	Previous orchestra experience at the middle school level required	52
ALL	9238	Symphonic Orchestra	1.0	9-12	One or more years of previous orchestra experience; by audition	52
ALL	9239	Chamber Sinfonia	1.0	10-12	By audition only.	52
GENERAL COURSES FOR MUSIC						
ALL	9225	Music Theory	1.0	10-12	Previous music training required. Students should have a fundamental understanding of music notation.	52
B-C-M-N	9245	Guitar I	1.0	9-12		52
B-C-M-N	9247	Guitar II	1.0	10-12	Successful completion of Guitar I or teacher recommendation	52
S	9214	Music Technology I	1.0	9-12		52
S	9298	Music Technology II	1.0	10-12	Successful completion of Music Technology I	52
GENERAL COURSES FOR THEATRE ARTS						
ALL	1410	Theatre Arts I	1.0	9-12		53
ALL	1420	Theatre Arts II	1.0	10-12	Successful completion of Theatre Arts I	53
ALL	1423	Theatre Arts III	1.0	11-12	Successful completion of Theatre Arts II	53
ALL	1426	Theatre Arts IV	1.0	11-12	Successful completion of Theatre Arts III	53
ALL	1435	Technical Theatre I	1.0	9-12		53
ALL	1448	Technical Theatre II	1.0	10-12	Successful completion of Technical Theatre I	53
ALL	1450	Technical Theatre III	1.0	10-12	Successful completion of Technical Theatre II	53
AP COURSES FOR ART						
ALL	9150	AP Studio Art (Drawing Portfolio)	1.0	11-12	Successful completion of Art III 2-D or 3-D and teacher recommendation	53
ALL	9148	AP Studio Art (2-D Design Portfolio)	1.0	11-12	Successful completion of Art III 2-D or 3-D and teacher recommendation	53

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*SCHOOL	COURSE #	COURSE	CREDIT	GRADE	RECOMMENDED BACKGROUND	PAGE
ALL	9149	AP Studio Art (3-D Design Portfolio)	1.0	11-12	Successful completion of Art III 2-D or 3-D and teacher recommendation	53
ALL	9151	AP Art History (Non-Studio Elective)	1.0	11-12	Successful completion of Art History or teacher recommendation	53
AP COURSES FOR MUSIC						
ALL	9226	AP Music Theory	1.0	11-12	Successful completion of Music Theory or teacher recommendation	54
IB COURSES FOR FINE AND PERFORMING ARTS						
B-M	IB9194	IB Visual Arts (SL)	1.0	11-12	"B" or higher in Art Foundation and Intermediate Art	54
B-M	IB9195	IB Visual Arts (HL)	1.0	12	"C" or higher in IB year one to go on to IB year two	54
B-M	IB1432 IB1433	IB Theatre Arts (SL or HL)	1.0 per course	11-12	"B" or higher in Theatre Arts I, Theatre Arts II, and Theatre Arts III courses for IB year one. "C" or higher in IB year one to go on to IB year two	54
B-M	IB9294	IB Music (SL)	1.0 per course	11-12	"B" or higher in previous music courses for IB year one. "C" or higher in IB year one to go on to IB year two and/or music teacher recommendation. Completion in Music Theory course preferred. Students must be concurrently enrolled in a performance course.	54
B-M	IB9295	IB Music (HL)	1.0 per course	11-12	"B" or higher in previous music courses for IB year one. "C" or higher in IB year one to go on to IB year two and/or music teacher recommendation. Completion in Music Theory course preferred. Students must be concurrently enrolled in a performance course.	54
HEALTH AND PHYSICAL EDUCATION AND DRIVER EDUCATION PROGRAMS						
ALL	7300	Health and Physical Education 9	1.0	9		55
ALL	7400/ 7405	Health and Physical Education 10	1.0	10	Health and P.E. 9	55
ALL	7640	Strength and Body I	1.0	11-12		55
ALL	7650	Strength and Body II	1.0	12		55
ALL	7643	Competitive Team Sports	1.0	11-12		55
ALL	7653	Competitive Individual Sports	1.0	11-12		56
ALL	7660	Sports Medicine I	1.0	11-12	Successful completion of Biology	56
ALL	7662	Sports Medicine II	1.0	11-12	Successful completion of Sports Medicine I; completion of application and interview, be available five hours a week after school	56
ALL	7510	Sport and Fitness for Life I	1.0	11-12		56
ALL	7610	Sport and Fitness for Life II	1.0	12	Successful completion of Sport and Fitness for Life I	56

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<b>ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL)</b>						
ALL	5720	ESOL Concepts of Science	1.0	9-12		57
ALL	5710	ESOL Concepts of Social Studies	1.0	9-12		57
ALL	4610	ESOL Foundations of Science	1.0	9-12		57
ALL	2997	ESOL Foundations of Social Studies	1.0	9-12		57
ALL	5730	ESOL English for Academic Purposes	1.0	9-12		57
ALL	5731	ESOL Reading & Writing Strategies	1.0	9-12		57
ALL	5732	ESOL Algebra Readiness	1.0	9-12		57
<b>ADDITIONAL CREDIT OPPORTUNITIES</b>						
C-N-S	22110	AP Capstone – AP Seminar	1.0	10-12	“B” or higher earned in previous English course or teacher recommendation.	58
C-N-S	22111	AP Capstone – AP Research	1.0	11-12	Successful completion of AP Seminar	58
ALL	9826	All Century Independent Learners	1.0	9-12	Approved written proposal	58
ALL	0115	Gifted and Accelerated Programs (GSP) Independent Study	1.0	11-12	Written proposal and interview required	58
C-N-S	1519G	CGS Advanced Research and Writing	1.0	12		58
ALL	9828	Learn and Serve I	1.0	10-12		58
ALL	9840	Learn and Serve II	1.0	10-12		58
ALL	9097	Leadership	1.0	9-12		58
<b>JROTC</b>						
N	AF7913	Air Force Military Science I	1.0	9-12		59
N	AF 7916	Air Force Military Science II	1.0	10-12	Air Force Military Science Level I	59
N	AF 7918	Air Force Military Science III	1.0	10-12	Air Force Military Science Level II	59
N	AF 7919	Air Force Military Science IV	1.0	10-12	Air Force Military Science Level III	59
C	7913	Army Military Science I	1.0	9-12		59
C	7916	Army Military Science II	1.0	10-12	Army Military Science I	59
C	7918	Army Military Science III	1.0	11-12	Army Military Science II	60
C	7919	Army Military Science IV	1.0	12	Army Military Science III	60
M	MC7913	Marine Corps Military Science I	1.0	9-11		60
M	MC7916	Marine Corps Military Science II	1.0	10-12	Marine Corps Military Science I	60
M	MC7918	Marine Corps Military Science III	1.0	11-12	Marine Corps Military Science II	60
M	MC7919	Marine Corps Military Science IV	1.0	12	Marine Corps Military Science III	60
B-S	NA7913	Navy Military Science I	1.0	9-11		60
B-S	NA7916	Navy Military Science II	1.0	10-12	Navy Military Science I	60
B-S	NA7918	Navy Military Science III	1.0	11-12	Navy Military Science II	61
B-S	NA7919	Navy Military Science IV	1.0	12	Navy Military Science III	61

## CAREER AND TECHNICAL EDUCATION

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*SCHOOL	COURSE #	COURSE	CREDIT	GRADE	RECOMMENDED BACKGROUND	PAGE
<b>CAREER CONNECTIONS</b>						
B-M-C	9062	DE Virginia Teachers for Tomorrow I	1.0	12	Acceptance based on application, teacher recommendation, and essay	67
<b>AGRICULTURE AND NATURAL RESOURCES</b>						
N	8034	Horticulture Sciences	1.0	10-12		67
N	8035	Greenhouse Plant Production and Management	2.0	10-12	Horticulture Sciences	67
N	8036	Landscaping	2.0	11-12	Horticulture Sciences	67
<b>BUSINESS AND INFORMATION TECHNOLOGY</b>						
ALL	6320	Accounting	1.0	10-12	Digital Applications Competency is recommended – see NOTE under Digital Applications	67
ALL	6321	Advanced Accounting	1.0	11-12	Accounting	67
ALL	6131	Business Law	1.0	11-12		68
ALL	6135	Business Management	1.0	11-12		68
ALL	6612	Computer Information Systems	1.0	9-12	Digital Applications Competency is recommended – see NOTE under Digital Applications	68
ALL	6613	Advanced Computer Information Systems	1.0	10-12	Computer Information Systems	68
ALL	6302	Cybersecurity and IT Fundamentals	1.0	9-12	Programming or Programming Aptitude	68
ALL	6304	Cybersecurity Software Operations	1.0	10-12	Cybersecurity Fundamentals	68
ALL	6630	Design, Multimedia, and Web Technologies	1.0	9-12	Digital Applications Competency is recommended – see NOTE under Digital Applications	68
ALL	6631	Advanced Design, Multimedia, and Web Technologies	1.0	10-12	Design, Multimedia, and Web Technologies	68
ALL	6120	Economics and Personal Finance	1.0	10-12	This course is a graduation requirement for students who enter high school in 2011 and all subsequent years.	68
ALL	6617	Digital Applications (formerly Keyboarding)	1.0	9-12	Digital Applications competency may be demonstrated by successfully doing any ONE of the following: <ul style="list-style-type: none"> <li>• Completing Digital Applications (6617),</li> <li>• Completing Keyboarding (6153) at the Middle School, passing the SCPS common final exam, and completing the required portfolio, OR</li> <li>• Passing the SCPS Digital Applications Competency Exam.</li> </ul>	69
B (IB)	6115	Principles of Business and Marketing	1.0	9-10		69
ALL	6640	Programming	1.0	10-12	Digital Applications Competency is recommended – see NOTE under Digital Applications	69
ALL	6641	Advanced Programming	1.0	11-12	Programming	69
<b>MARKETING</b>						
ALL	8140	Fashion Marketing	1.0	10-12	Interest in fashion career recommended	69
ALL	8145	Advanced Fashion Marketing	1.0	11-12	Fashion Marketing	69
ALL	8120	Marketing	1.0	10-12		69
ALL	8130	Advanced Marketing	1.0	11-12	Marketing	69
ALL	8175	Sports, Entertainment and Recreational Marketing	1.0	10-12		69
ALL	8177	Advanced Sports, Entertainment and Recreational Marketing	1.0	11-12	Sports, Entertainment and Recreational Marketing	69

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ALL	8130	Advanced Marketing	1.0	11-12	Marketing	69
ALL	8175	Sports, Entertainment and Recreational Marketing	1.0	10-12		69
ALL	8177	Advanced Sports, Entertainment and Recreational Marketing	1.0	11-12	Sports, Entertainment and Recreational Marketing	70
HEALTH AND MEDICAL SCIENCES						
C-S	8333	Emergency Medical Technician I	1.0	11-12	Introduction to Health and Medical Sciences student must be 16 years of age by the first day of school in order to enroll in EMT I. Successful completion of Emergency Medical Technician I is necessary to enroll in EMT II. Prerequisite: AHA Healthcare provider or ARC Professional Cardiopulmonary Resuscitation (CPR) certification prior to the start of class.	70
C-S	8334	Emergency Medical Technician II	1.0	11-12	See course description. MUST be concurrently enrolled in EMT I & EMT II	70
C	8335	Emergency Medical Technician III	1.0	12	Successful completion of EMT I and EMT II/Instructor Endorsement	70
B	8331	Health Assisting Careers	2.0	11-12	Introduction to Health and Medical Sciences and teacher recommendation	70
ALL	8302	Introduction to Health and Medical Sciences	1.0	10-12		70
M	8345	Medical Assistant I	2.0	11-12	Introduction to Health and Medical Sciences	70
N	8360	Nurse Aide I	2.0	11-12	Introduction to Health and Medical Sciences (including clinical experience)	71
N	8362	Nurse Aide II	2.0	11-12	MUST be concurrently enrolled in Nurse Aide I & Nurse Aide II	71
FAMILY AND CONSUMER SCIENCES						
ALL	8232	Child Development & Parenting	1.0	10-12		71
B-M-S	8275	Culinary Arts I	2.0	10-11		71
B-M-S	8276	Culinary Arts II	2.0	11-12	Culinary Arts I and students must successfully pass ServSafe Manager Certification Exam	71
B-M	8279	Culinary Arts Specialization	2.0	12	Culinary Arts II and Students must successfully pass the Culinary Arts II end-of-the- year assessment and have the teacher's recommendation.	71
B-N	8285	Early Childhood, Education, & Services I	2.0	10-12		71
B-N	8286	Early Childhood, Education, & Services II	2.0	11-12	Early Childhood Education I	71
ALL	8225	Family Relations	1.0	9-12		72
ALL	8248	Introduction to Fashion Careers	1.0	9-12		72
ALL	8255	Introduction to Interior Design	1.0	9-12		72
ALL	8227	Life Planning	1.0	11-12		72
ALL	8229	Nutrition and Wellness	1.0	9-12		72
TECHNOLOGY AND ENGINEERING EDUCATION						
B-C-M-N	8437	Architectural Drawing and Design	1.0	10-12	Technical Drawing and Design	72
C	8415	Communication Systems	1.0	9-12		72
ALL	TBD	Cyber Security	1.0	11-12	Located under Business and Information Technology	72
C	8459	Digital Visualization	1.0	10-12	Technical Drawing and Design	72
C-M-S	8450	Engineering Exploration	1.0	9-11		73
C-M-S	8491	Engineering Studies	1.0	10-12	Engineering Exploration or Engineering Practicum IV	73

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B-C-M-N	8436	Engineering Drawing & Design	1.0	10-12	Technical Drawing & Design	73
S	8423	Geospatial Technology I	1.0	11-12		73
S	8424	Geospatial Technology II	1.0	11-12	Geospatial Technology I	73
C	8455	Imaging Technology	1.0	9-11		73
B-M	8425	Manufacturing Systems I	1.0	9-12		73
B	8427	Advanced Manufacturing Systems II	1.0	10-12	Manufacturing Systems or Production Systems	73
M-N	8447	Production Systems	1.0	9-12		74
B-C-M-N	8435	Technical Drawing & Design	1.0	9-12		74
PROJECT LEAD THE WAY - PLTW COURSES						
N	8428	Aerospace Engineering - PLTW	1.0	10	Introduction to Engineering Design	75
N	8382	Biomedical Innovation-PLTW	2.0	12	Biology, Chemistry and one of the following: AP Chemistry, AP Biology, Physics/AP Physics, Anatomy & Physiology, plus teacher recommendations and letter of interest AND/OR one or more PLTW courses and teacher recommendation	75
N	8430	Civil Engineering and Architecture - PLTW	1.0	11-12	Introduction to Engineering Design and Principles of Engineering or Digital Electronics	75
N	8442	Computer Integrated Manufacturing - PLTW	1.0	11-12	Introduction to Engineering Design and Digital Electronics	75
N	8440	Digital Electronics - PLTW	1.0	10-12	Introduction to Engineering Design	76
N	8443	Engineering Design & Development - PLTW	2.0	12	Introduction to Engineering Design, Principles of Engineering, Digital Electronics, and Computer Integrated Technology	76
N	8380	Human Body Systems-PLTW	1.0	10-12	Biology and teacher recommendation AND/OR Principles of Biomedical Sciences-PLTW and teacher recommendation	76
N	8439	Introduction to Engineering Design - PLTW	1.0	9-11		76
N	8381	Medical Interventions-PLTW	1.0	11-12	Biology, Algebra II and Chemistry completed or concurrently enrolled and teacher recommendations AND/OR one or more PLTW courses and teacher recommendation; Anatomy and Physiology enrolled concurrently strongly recommended	76
N	8379	Principles of Biomedical Sciences-PLTW	1.0	9-11		76
N	8441	Principles of Engineering-PLTW	1.0	11-12	Introduction to Engineering Design; Algebra II, which may be taken concurrently, and Digital Electronics	76
TRADE AND INDUSTRIAL EDUCATION						
N	8676	Auto Body Technology I - Collision and Repair	2.0	10-11		77
N	8677	Auto Body Technology II - Painting and Refinishing	4.0	11-12	Automotive Body Technology I	77
N	8678	Auto Body Technology III - Collision and Repair and Painting and Refinishing	4.0	12	Automotive Body Technology II	77
B-N-S	8502	Automotive Technology I	1.0	10-11		77
B-N-S	8507	Automotive Technology II	2.0	11-12	Automotive Technology I	77
B-N-S	8508	Automotive Technology III	2.0	12	Automotive Technology II	77
M	8743	Barbering I	3.0	11	Regular attendance is required in order to meet the clinical lab hours. Grade 10 if space is available.	77
M	8744	Barbering II	4.0	11-12	Passing score of 70% or above in Barbering I and regular attendance is required to meet clinical hours.	78



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N	8604	Cabinetmaking I	1.0	9-11		78
N	8605	Cabinetmaking II	2.0	10-12	Cabinetmaking I	78
B-S	8601	Carpentry I	BPHS-1.0 SHS-2.0	9-10	Construction Trades	78
B-S	8602	Carpentry II	2.0	10-12	Carpentry I	78
S	8603	Carpentry III	2.0	11-12	Carpentry II	78
S	9071	Construction Trades I	1.0	9-10		78
M-S	8745	Cosmetology I	3.0	11	Regular attendance is required in order to meet the clinical lab hours.	78
M-S	8746	Cosmetology II	4.0	11-12	Passing score of 70% or above in Cosmetology I & regular attendance is required to meet clinical hours.	79
B-N	8702	Criminal Justice I	1.0	11-12		79
B-N	8703	Criminal Justice II	1.0	11-12	Criminal Justice I	79
S	8530	Drafting I (Fundamentals)	1.0	9-11		79
S	8531	Drafting II (Advanced Mechanical)	2.0	10-12	Drafting I	79
S	8532	Drafting III (Architectural Drawing)	2.0	11-12	Drafting II	79
S	8533	Electricity I	2.0	9-11	Construction Trades recommended; Algebra I, Part I recommended	79
S	8534	Electricity II	2.0	10-12	Electricity I	79
S	8535	Electricity III	2.0	11-12	Electricity II	79
All	8705	Firefighting I	2.0	11-12	Students must be at least 16 years old by the first day of the course offering. Enrollment also requires parental consent. Additional requirements, including CPR, HAZMAT operations, and Mayday Awareness, are stipulated for those students seeking NFPA Firefighter I certification.	80
All	8706	Firefighting II	2.0	11-12	Successful completion of Firefighting I and Certification Exam	80
N	8660	Graphic Imaging Technology I	2.0	9-11		80
N	8661	Graphic Imaging Technology II	2.0	10-12	Graphic Imaging Technology I	80
S	8512	Masonry I	2.0	9-11	Construction Trades recommended	80
S	8513	Masonry II	2.0	10-12	Masonry I	80
S	8514	Masonry III	2.0	11-12	Masonry II	80
S	8725	Small Engine Technology I	1.0	9-12		80
S	8726	Small Engine Technology II	2.0	10-12	Small Engine Technology I	80
ALL	8688	Television and Media Production I	1.0	9-12		81
ALL	8689	Television and Media Production II	1.0/2.0	10-12	Television and Media Production I	81
ALL	8690	Television and Media Production III	1.0/2.0	11-12	Television and Media Production II	81
B-N	8691	Television and Media Production-Apprenticeship	1.0	12	Television and Media Production II	81



## **STAFFORD COUNTY PUBLIC SCHOOLS**

### **BROOKE POINT HIGH SCHOOL**

**1700 Courthouse Road**

**Stafford, Virginia 22554**

**(540) 658-6080**

**Tammy Houk, Principal**

**Marialena Bridges, Ed. D., Counseling Director**

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### **COLONIAL FORGE HIGH SCHOOL**

**550 Courthouse Road**

**Stafford, Virginia 22554**

**(540) 658-6115**

**Gregory O. Daniel, Principal**

**Rebecca Shay, Counseling Director**

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### **MOUNTAIN VIEW HIGH SCHOOL**

**2135 Mountain View Road**

**Stafford, Virginia 22556**

**(540) 658-6840**

**James D. Stemple, Jr., Ed.D., Principal**

**Sarah Hodges, Counseling Director**

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### **NORTH STAFFORD HIGH SCHOOL**

**839 Garrisonville Road**

**Stafford, Virginia 22554**

**(540) 658-6150**

**Daniel Hornick, Principal**

**Carol Mayer, Counseling Director**

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### **STAFFORD HIGH SCHOOL**

**63 Stafford Indian Lane**

**Fredericksburg, Virginia 22405**

**(540) 371-7200**

**Joseph Lewis, Principal**

**Tamara LaPonte, Counseling Director**

**Courses may be cancelled as a result of low enrollment, staffing and/or budget limitations.**