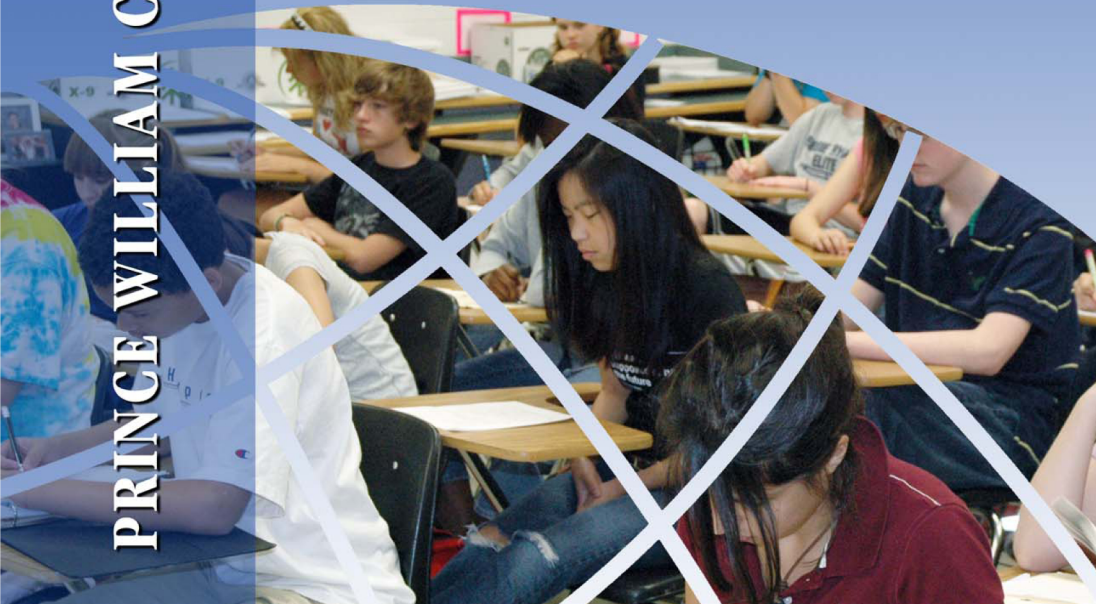


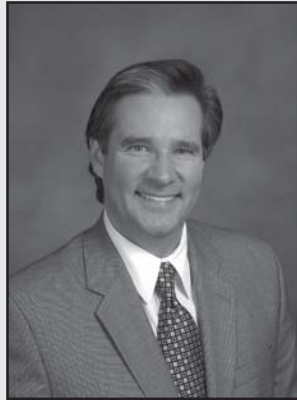
PRINCE WILLIAM COUNTY PUBLIC SCHOOLS



2009 - 10

High School Course Catalog





Dear High School Student:

At Prince William County Public Schools (PWCS) we are committed to your high school success and transition to a meaningful post-secondary choice. With a clear focus on your learning, we provide you with rich and engaging experiences upon which to make these future decisions. Over the years, many new courses have been developed to provide you with opportunities to explore a variety of career areas. Options are also available to earn college credits through increased advanced placement offerings. We have created an environment where you will learn about your strengths, how these personal strengths connect with career opportunities, and what preparation is needed to successfully transition to the world beyond high school.

The “2009-10 High School Course Catalog” provides you with information about available courses and support services, and serves as a resource to you throughout the school year. A quick reference guide that lists courses by grade level and indicates the page numbers to go to in the “Catalog” for details is included. If you prefer, the “Catalog” can also be accessed on the Division’s Web site at www.pwcs.edu. Please take the time to carefully review the “Catalog” with your parent or guardian. This will begin the process of selecting courses for the next school year that are meaningful to you and will help you meet your personal goals.

Our PWCS counselors, teachers, and administrators will work with you to ensure your continued success in meeting graduation requirements and to be certain that your 2009-10 academic program meets your interests and needs.

Sincerely,

A handwritten signature in black ink that reads "Steven L. Walts". The signature is written in a cursive, flowing style.

Steven L. Walts
Superintendent of Schools

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TERMINOLOGY

Advanced Placement, International Baccalaureate Diploma and Cambridge AICE Courses

Certain courses have been designated as Advanced Placement (AP), International Baccalaureate (IB) and Cambridge Courses (AICE). These courses are externally moderated and exceed the expectations of grade-level objectives for a specific subject. Students taking these courses will have a plus sign (+) beside the course title listed on the student's report card and on the student transcript. These courses will receive weighted credit.

Standard Unit of Credit

A standard unit of credit is based on a minimum of 140 clock hours of instruction and successful completion of the requirements of the course.

Elective

Electives are additional courses other than required courses that are needed to meet the total minimum standard units of credit required to earn a high school diploma.

Fine Arts or Career and Technical Education (practical arts)

- Fine Arts include elective courses under Dance, Music, Theatre and Visual Arts. All of these courses meet this graduation requirement.
- Career and Technical Education courses are those in which a student is taught a "hands on" or career related skill. All courses listed under Career and Technical Education, JROTC, Athletic Training I and II, and Employ courses listed under Special Education meet this graduation requirement.

Locally Awarded Verified Credit

A locally awarded verified credit is awarded by a local school board in the science or history/social science areas of study. Locally awarded verified units of credit are available to students who are pursuing the Standard Diploma. Specific criteria have been developed for the awarding of these credits. Students may not earn more than four locally awarded verified units of credit.

Sequential Electives

According to the Virginia Department of Education's (DOE) Standards of Quality (SOQ) students who plan to graduate with a Standard Diploma or Modified Standard Diploma must complete at least two sequential electives. Students who successfully complete any career and technical education concentration or specialization that consists of at least two 36-week courses or semester equivalents that equal two 36-week courses will fully meet this requirement. One credit used to satisfy the fine arts or career and technical education requirement for the Standard or Modified Standard Diploma may be used to partially satisfy this requirement.

Standards of Learning (SOL)

The Standards of Learning for Virginia Public Schools describe the Commonwealth's expectations for student learning and achievement in grades K-12 in English, mathematics, science, history and social science, technology, the fine arts, foreign language, health and physical education, and driver education.

Standards of Learning Tests (SOL Tests)

SOL tests are End-of-Course (EOC) tests, which are required by the Virginia Department of Education (DOE) to verify attainment of knowledge and skills in specific English, math, science and social science courses.

Verified Unit of Credit

A verified unit of credit is based on a minimum of 140 clock hours of instruction, successful completion of the requirements of the course, and achievement of a passing score on the End-of-Course (EOC) Standards of Learning (SOL) test or additional test for that course as approved by the Board of Education.

Weighted Credit

Weighted credit refers to grade point values assigned to Advanced Placement, International Baccalaureate and Cambridge courses; certain Career and Technical Education courses; qualifying college courses; and designated prerequisite courses.

Virtual High School

Prince William County's Virtual High School offers courses that are delivered over the Internet where students are provided a variety of web-based, technology-based, and traditional resources to help them succeed. Teachers communicate with students via email, discussion boards, telephone, and through the use of online chats within the course. Virtual high school courses are taught by certified teachers and meet or exceed most state and county standards.

GENERAL INFORMATION

The purpose of this course description catalog is to describe in general terms the courses taught in Prince William County high schools, grades 9-12.

Grade-level designations represent the grade at which most students take the indicated course. Exceptions may be made to meet the individual educational needs of the student.

Grade Placement—The requirements for membership in grades 9-12 are as follows:

- Ninth Grade: Successful completion of grade eight
- Tenth Grade: Six units of credit, three of which must be in required courses
- Eleventh Grade: Eleven units of credit, six of which must be in required courses
- Twelfth Grade: Sixteen units of credit, nine of which must be in required courses

To be classified as a twelfth grader, a student must be in a program of studies which will enable the student to acquire the minimum number of standard units of credit and verified units of credit required for graduation by June of the senior year or by the end of summer school following the senior year. All alternative programs require the approval of the principal of the high school from which the student will graduate.

Grade-Point Values—All courses taught for credit in Prince William County are assigned grade-point values as follows:

GRADE	POINT VALUE FOR COURSES	POINT VALUE FOR COURSES DESIGNATED AS ADVANCED PLACEMENT INTERNATIONAL BACCALAUREATE, CABBRIDGE AND CERTAIN CAREER AND TECHNICAL EDUCATION COURSES	POINT VALUE FOR DESIGNATED PREREQUISITE COURSES
A	4 points (93-100)	5 points (93-100)	4.5 points (93-100)
B+	3.4 points (90-92)	4.4 points (90-92)	3.9 points (90-92)
B	3 points (84-89)	4 points (84-89)	3.5 points (84-89)
C+	2.4 points (81-83)	3.4 points (81-83)	2.9 points (81-83)
C	2 points (74-80)	3 points (74-80)	2.5 points (74-80)
D+	1.4 points (71-73)	1.4 points (71-73)	1.4 points (71-73)
D	1 point (65-70)	1 point (65-70)	1 point (65-70)
F	0 points (64 and below)	0 points (64 and below)	0 points (64 and below)

All Carnegie unit courses are used in determining a student's grade point average (GPA)

When students successfully complete courses identified as ninth, tenth, eleventh, or twelfth grade courses prior to entering ninth grade, they will receive standard units of credit toward graduation. Such courses will be used in computing the student's high school grade-point average. (See paragraph below)

OMITTING A GRADE FOR A HIGH SCHOOL CREDIT COURSE TAKEN IN MIDDLE SCHOOL

The Regulations Establishing Standards of Accrediting Public Schools in Virginia have provided parents with the option of requesting that grades be omitted from a student's transcript for any high school credit-bearing course taken in middle school. Requests to have a high school credit-bearing course grade removed from a student's transcript must be submitted in writing to the appropriate principal before the deadline established by the School Division prior to the student's entry into the ninth grade. Parents who elect to have a grade removed from the transcript should be aware that the decision to have the grade removed is binding and that no grade or associated credit will be awarded for the course once the request has been granted.

GRADUATION REQUIREMENTS

STUDENTS ENTERING 9TH GRADE IN 2003-04 (CLASS OF 2007) AND BEYOND

Required Courses	Advanced Studies Diploma		Standard Diploma	
	Standard units of credit	Verified units of credit	Standard units of credit	Verified units of credit
English 9, 10, 11, 12 (Any student completing English 11 in PWC must pass an English 11 Research Paper as well as the English 11 course)	4	2 English 11: Writing and English 11: Reading	4	2 English 11: Writing and English 11: Reading
Mathematics Must be at or above the level of algebra and include at least two different course selections (Standard Diploma) or at least three different course selections (Advanced Studies Diploma) from Algebra I, Geometry, Algebra II, or higher. (Advanced Studies Diploma must include Algebra II)	4	2	3	1
Laboratory Science Must include course selections from at least two different science disciplines (Standard Diploma) or three different disciplines (Advanced Studies Diploma) from among Earth Science, Biology, Chemistry, or Physics	4	2	3	1#
History/Social Sciences Must include U.S. and Virginia History, U.S. and Virginia Government, World History and Geography from 1500. World Geography is required for Advanced Studies Diploma	4	2	3	1#
Foreign Language Three years of one language or two years each of two languages	3			
Health/Physical Education I, II	2		2	
Fine Arts or Career and Technical Education (practical arts)	1		1	
Electives Courses to satisfy this requirement shall include two sequential electives (Standard Diploma only) *	2		6* Must include two sequential electives	
Student Choice		1		1#
TOTAL CREDITS REQUIRED	24	9	22	6

Students who complete Advanced Placement, Cambridge, college-level, or courses required for the International Baccalaureate Diploma shall be deemed to have completed the requirements for graduation under these standards provided they have passed end-of-course tests required to earn verified credits as required of students earning either a Standard or Advanced Studies Diploma, or, in the case of a complete International Baccalaureate Program, the number of verified credits required for an Advanced Studies Diploma.

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

GRADUATION REQUIREMENTS

MODIFIED STANDARD DIPLOMA

Required Courses	Standard Units of Credit
English 9, 10, 11, 12 (Any student completing English 11 in PWC must pass an English 11 Research Paper as well as the English 11 course)	4
Mathematics Must include 3 units of credit from among applications of algebra, geometry, personal finance, and statistics, or higher. Beginning with the ninth grade class of 2004-2005 and beyond, minimum mathematics requirements are Algebra I, Part I; Algebra I, Part II; and Personal Living and Finance.	3
Laboratory Science Must include 2 courses from among Earth Science, Biology, Active Physics, and Chemistry	2
History/Social Sciences Must include 2 units of credit from U.S. and Virginia History and U.S. and Virginia Government	2
Health/Physical Education: 2 units	2
Fine Arts or Career and Technical Education (<i>Practical Arts</i>) : 1 unit of credit	1
Electives: 6 units of credit Courses to satisfy this requirement shall include two sequential electives	6
TOTAL CREDITS REQUIRED	20
<p>Eligibility and participation in the Modified Standard Diploma program shall be determined by the student's Individualized Education Program (IEP) team and the student, where appropriate, at any point after the student's eighth grade year. The student who has chosen to pursue a Modified Standard Diploma shall also be allowed to pursue the Standard or Advanced Studies Diploma at any time throughout his/her high school career.</p> <p>Students pursuing the Modified Standard Diploma must pass the 8th grade SOL Tests in Math and English/Reading or achieve scores on these or on other tests as approved by the Board of Education.</p>	

SPECIAL DIPLOMA

Courses Needed: Students receiving special education services can earn this diploma by completing requirements as stated in their Individualized Education Program (IEP).

DIPLOMA WARRANTY

Prince William County Public Schools will provide a two-year warranty for diploma recipients. The diploma warranty guarantees minimum competencies in reading, writing, and mathematics. Students receiving a diploma from Prince William County Public Schools:

- Understand, interpret, and analyze written material
- Carry out oral and written directions or obtain clarification when necessary
- Express ideas both orally and in writing, using appropriate vocabulary and proper grammar
- Locate and obtain needed information from common reference materials, computerized data-bases, maps and diagrams, and resource people
- Apply basic computation skills
- Use problem-solving strategies in the work environment

Prince William County Public School's graduates who are identified by employers as lacking one or more of these minimum competencies may be retrained through Prince William County Public schools' Night School Program at no expense to the graduate.

DIPLOMA SEALS

Regulations Establishing Standards for Accrediting Public Schools in Virginia contain provisions for awards for exemplary performance for students who meet the requirements for graduation as follows:

- Students who complete the requirements for an Advanced Studies diploma with an average grade of "B" or better, and successfully complete at least one Advanced Placement (AP), International Baccalaureate (IB), Cambridge (AICE), or one college-level course for credit, will receive the Governor's Seal on the diploma.

Beginning with the ninth grade class of 2006-07, students who complete the requirements for an Advanced Studies Diploma with an average grade of "B" or better, and successfully complete college-level coursework that will earn the student at least nine transferable college credits in Advanced Placement (AP), International Baccalaureate (IB), Cambridge, or dual enrollment courses will receive the Governor's Seal on the Diploma. Students who complete the requirements for an Advanced Studies Diploma with an average of "A" will receive a Board of Education Seal on the diploma.

- Students who complete the requirements for a Standard Diploma with an average of "A" will receive a Board of Education Seal on the diploma.

- Beginning with the ninth grade class of 2006-07, students who complete the requirements for a Standard Diploma or Advanced Studies Diploma with an average of "A" will receive a Board of Education Seal on the diploma.

- The Board of Education's Career and Technical Education Seal will be awarded to students who earn a Standard or Advanced Studies Diploma and (i) complete a prescribed sequence of courses in a career and technical education concentration or specialization and maintain a "B" or better average in those courses; or (ii) pass an examination or an occupational competency assessment in a career and technical education concentration or specialization that confers certification or an occupational competency credential from a recognized industry, trade or professional association; or (iii) acquire a professional license in that career and technical education field from the Commonwealth of Virginia. The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements.

- The Board of Education Seal of Advanced Mathematics and Technology is awarded to students who earn either a Standard or Advanced Studies Diploma and satisfy all of the mathematics requirements for the Advanced Studies Diploma with a "B" average or better (four standard units of credit including Algebra II; two verified units of credit); and (i) pass an examination in a career and technical education field that confers certification from a recognized industry, trade, or professional association; or (ii) acquire a professional license in a career and technical education field from the Commonwealth of Virginia; or (iii) pass an examination approved by the Board that confers college-level credit in a technology or computer science area. The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements.

- The Board of Education's Seal for Excellence in Civics Education will be awarded to students who earn either a Standard or Advanced Studies Diploma and satisfy all of the following criteria: (i) complete U.S. and Virginia History and U.S. and Virginia Government with a grade of "B" or higher; (ii) complete 50 hours of voluntary participation in community service or extracurricular activities that have a civics focus; and (iii) have good attendance and no disciplinary infractions.

Any student who enlists in the United States military prior to graduation will be deemed to have completed the community service requirement for this seal.

COURSE SELECTION

When selecting courses for the upcoming school year, students and parents/guardians should choose carefully.

The courses selected should be based on the student's ability, past record of academic achievement, interest in the subject, career goal(s), and teacher recommendations. The pursuit of a course of studies leading to entrance into college may include those courses not directly related to college entrance. Art, music, and career and technical education courses offer students the opportunity to explore new areas of study as well as to gain knowledge and skills that may likely prove useful to them in whatever career they choose. Students pursuing training in vocational-oriented courses should take those academic courses specifically required for their career goal.

Through careful course selection and close cooperation between the student and the school counselor, a student will be able to pursue a career goal and still have time for other course offerings without excluding any particular area of study.

This catalog includes a listing of courses taught in Prince William County high schools. All courses are not taught in all high schools. Course offerings are contingent on sufficient student interest. This may result in some courses not being available in certain schools even though they are listed for those schools. Numbers 1-10 and 99 shown below the course's descriptive paragraph indicate the schools in which each course is taught. The code number for each high school is as follows:

(1) Brentsville; (2) Gar-Field; (3) Osbourn Park; (4) Potomac;
(5) Stonewall; (6) Woodbridge; (7) Hylton; (8) Forest Park;
(9) Battlefield; (10) Freedom and (99) Virtual @PWCS

For easy reference, this code is repeated at the bottom of each page of this catalog wherever courses are described. A student desiring to take a course offered at a school other than his/her assigned school should contact his/her school counselor for details.

COURSE SELECTION

It should not be assumed that a student must select the Advanced Studies Diploma if the student plans to enter college after high school. The Standard Diploma allows a student the flexibility to schedule courses required for college entrance while leaving time for various electives. It is also possible for a student to select the Advanced Studies Diploma and still have options in areas not necessarily required for college entrance: i.e., art, music, or career and technical education courses.

The scheduling of classes in high school is a highly personal task and should be based on the student's aptitude and interests, teacher recommendations, and close collaboration among school, student, and parent/guardian.

SCHEDULE CHANGES

Schedule changes are made through the Guidance Department. Students must comply with the schedule change process established at their school. Should a student elect to change a class, the following rules will apply:

- If a student drops a one-year course during the first semester, a notation will be made on the student's permanent record stating either "Withdrawn, Passing" or "Withdrawn, Failing." For a one-year course dropped after the first semester, a failing grade will be recorded on the student's transcript. This procedure will become effective within one week after the issuance of the first interim.
- For students enrolled in a one-semester course who drop the course before the end of the nine weeks, the notation "Withdrawn, Passing" or "Withdrawn, Failing" will be recorded. For a one-semester course dropped after the nine-week period, a failing grade will be recorded on the student's transcript.
- If a student moves from one level to another level of the same course, the grades earned in the initial course will transfer to the second course.

ELIGIBILITY REQUIREMENTS (Extracurricular Activities)

The following applies to interscholastic athletics, cheerleading, marching band, and drill team.

- A student must pass five subjects and earn a “C” or better in two subjects at the end of the first semester, at the end of the school year, and at the end of the first and third nine weeks in order to remain eligible for participation. This applies to practice as well as to games.
- Initial determination of eligibility at the beginning of a new semester is made on the first calendar day following the end of the previous semester. Subsequent eligibility determination at the end of the nine-week reporting periods is made on the scheduled day of report card distribution.
- Student assistant electives such as science lab assistant, library lab assistant, physical education assistant, and student assistant for special education shall not be counted toward meeting the standards.

VIRGINIA HIGH SCHOOL LEAGUE ATHLETIC ELIGIBILITY FOR STUDENTS WHO TRANSFER TO SPECIALTY SCHOOLS

- Students who transfer to a school in order to participate in a specialty program will be eligible for VHSL-sponsored activities for athletic/activity participation. The transfer must occur at the beginning of the program. The student must meet full participation requirements of the program to retain eligibility. Rising tenth and eleventh grade students who transfer to any specialty program and wish to participate in VHSL activities must submit a written request for a waiver for eligibility after they have been accepted into the program.
- If a student withdraws or is dismissed by the program director from the specialty program, the student must return to his/her base school once the withdrawal procedure is completed.
- If a student withdraws from the specialty program on or before October 15, the student will be ineligible for participation in VHSL-sponsored activities for the remainder of the first semester, but eligible for participation for the second semester. If a student withdraws from the specialty program after October 15, but before the end of the first semester, the student will be ineligible for participation for the remainder of that school year. Eligibility will be restored at the base school at the beginning of the fall season of the next school year.
- If the student withdraws during the second semester of a school year, the student will be ineligible for the next fall semester. If a student withdraws from the specialty program after one year, the student will return to his/her base school and will be ineligible for one year.



CAREER AND TECHNICAL EDUCATION COURSES CAN FULFILL THE FOLLOWING GRADUATION REQUIREMENTS:

- Fine and Performing Arts Credit
- Sequential Electives
- Elective Credit
- Student Choice Verified Credit through industry licensure, certification or testing

THE WORKPLACE OF TODAY

According to Virginia's employers, today's workplace trends include:

- Employers feel that today's workers, especially at the entry level, need a greater awareness of the basic workplace value of 'a day's work for a day's pay.'
- The number of workers who use or rely on computers and computerized technology has increased dramatically, and new ways to use this technology are being found every day.
- Workers are expected to solve problems and make decisions that were formerly the province of supervisors and managers.
- Employers are demanding higher educational levels of job applicants, and more occupations are requiring licensing or certification.
- Customers and clients are demanding better service and better quality products.
- Constant change requires flexibility and adaptability, particularly in the face of cross training, the trend toward temporary work, and the competition-driven need for non-traditional work hours in service-oriented occupations.
- Constant change requires lifelong learning.

EMPLOYERS EXPECT STUDENTS TO HAVE THE FOLLOWING - "HARD SKILLS"

- **Math** - workers need to be able to do basic math, including word or work problems.
- **Writing** - the demand for workers who can write clearly has increased in almost every occupation. Writing clearly includes using correct spelling and grammar in order to convey ideas to coworkers, clients, and customers.
- **Speaking** - the ability to convey one's meaning clearly is vital to successful oral communication in both formal and informal contexts.
- **Computer Literacy** - includes knowing how computers operate and what they can do; familiarity with word processing, spreadsheet, and database software; carrying

out basic hardware-related tasks; and recognizing the difference between operator error and computer caused problems.

- **Reasoning, problem solving and decision making** - require using logic to solve problems and make decisions based on an understanding of how and why things work the way they do.
- **Understanding the broader picture** - in order to make intelligent decisions, employees need to understand how their work fits into the wider picture and contributes to the broader aims and goals of the organization.

**** The above "hard skills" are covered in each Career and Technical Education Course under "All Aspects of Industry."**

EMPLOYERS ARE ALSO LOOKING FOR PERSONAL QUALITIES - "SOFT SKILLS"

- **A strong work ethic** - means good attendance, promptness, the flexibility to meet employers' changing requirements, having a positive attitude, and making an effort to do the job thoroughly and well.
- **A positive attitude** - includes cooperativeness, taking direction and correction willingly, eagerness to learn, being pleasant and polite, and in particular, getting along with others.
- **Independence and initiative** - means working without the need for constant supervision-finding things to do on one's own, making suggestions, and being interested in making things work better.
- **Self-presentation** - means making a good impression-wearing appropriate clothes, speaking well, being courteous and professional.

****The above "soft skills" are taught/reinforced in every Career and Technical Education Course as "Employability Skills."**

THE WORKPLACE OF THE COMING DECADE

1. **Racial and ethnic diversity will increase** bringing with it the need for higher levels of tolerance and interpersonal skills.
2. Workers will be increasingly called upon to **work independently** of supervision, and to demonstrate initiative in problem solving and decision-making.
3. **Educational requirements** for entry-level jobs will continue to rise.
4. The **increasing number of working women** brings an increasing demand for workers in jobs that serve households and families - restaurants, childcare, mail order sales, and so forth.
5. In many jobs, **traditional 9 to 5 hours will cease to be the norm.**
6. **Foreign language skills will be increasingly valued** in the workplace.
7. **Opportunities will be greatest for those most willing and able to relocate**, particularly to the state's major metropolitan areas.
8. The **increase in businesses and agencies that serve older people**, along with the need for people to work in these areas.
9. **Small employers** will continue to be a significant source of training and employment.

The above summaries of *The Workplace of Today* and *The Workplace of Coming Decades*, is taken directly from the Executive Summary of Virginia's [Changing Workplace](#).

Any course listed in the Career and Technical Education section will meet the *Fine and Practical Arts Requirement* for Graduation. Sequential Elective options for Career and Technical Education are listed on a separate chart in the appendices section of this course catalog.

HOW DO I EARN A CAREER AND TECHNICAL EDUCATION SEAL?

- Fulfill the requirements for either a Standard or Advanced Studies Diploma
- Complete prescribed sequence of courses in a CTE concentration or specialization
- Meet one of the following conditions:
 1. Maintain a "B" or better average in CTE courses
 2. Pass an exam that confers certification from a recognized industry, trade, or professional association. For example: A+ exam for Computer Systems Technology.
 3. Acquire a professional license in a CTE field for example: Cosmetology or Nursing.

HOW DO I EARN AN ADVANCED MATHEMATICS AND TECHNOLOGY SEAL?

- Fulfill the requirements for either a standard or advanced studies diploma.
- Satisfy all mathematics requirements for the Advanced Studies Diploma (four units of credits including Algebra II); with two verified units of credit with a "B" average or better
- Meet one of the following conditions:
 1. Pass an exam that confers certification from a recognized industry, trade, or professional association. Example: A+ exam for computer hardware installation and maintenance.
 2. Pass an exam approved by the Board that confers college-level credit in a technology or computer science area:
 - Adv. Computer Science A (score 3)
 - Adv Computer Science AB (score 3)
 - IB Computer Science (Standard Level))
 - IB Computer Science (Higher level):
 - IB Information Technology in a Global Society (Standard Level)
 - College Level CLEP Information Systems and Computer Applications (score 52)

WHAT IS TECH PREP?

Tech Prep is an innovative approach linking high school, college, and business preparation with business and industry. **The goal is to provide students with educational experiences that relate to real-world situations.**

Tech Prep is based on the idea that good technical education **combines a solid academic foundation with hands-on experiences.**

Identified Tech Prep courses are linked to corresponding Northern Virginia Community College courses. Linked courses:

- Allow high school students to earn college credit for courses completed in high school
- Save the student time and money
- Eliminate repetition of material already learned in high school
- Prepare students for post-high school academic and technical education

WHAT IS DUAL ENROLLMENT?

Dual enrollment provides a wider range of course options for high school students and avoids unnecessary duplication of programs. This plan promotes rigorous educational pursuits and encourages learning as a lifelong process; it recognizes that high school students who accrue college credit are more likely to continue with their education beyond high school than those who do not.

All high school juniors and seniors who are sixteen years of age or older are eligible to participate in the dual enrollment arrangement between the public school and post-secondary institutions. However, students selected must be prepared for the demands of college level curriculum and be able to benefit from the enrichment opportunity for which they are applying. **The principal of the base school determines Initial Eligibility** one semester at a time. Students must have this approval and appropriate forms signed prior to course registration at the college.

College credit shall be awarded by the post-secondary institution to participating high school students upon successful completion of a course. The award shall be in compliance with state and regional accrediting standards.

High school credit shall also be awarded to the participating high school students upon successful completion of the course. *The award shall be based on the college credit hour with one high school unit equivalent to six semester hours of college credit.* It is the student's responsibility to have the college transcript sent to the high school.

See your school counselor regarding Dual Enrollment opportunities at your school.

SEQUENTIAL ELECTIVES

According to the Standards of Quality (SOQ), students who plan to graduate with a Standard Diploma or a Modified Standard Diploma must complete at least two sequential electives.

Sequential electives is defined as any series of courses that are used to fulfill the elective requirements for a standard or modified standard diploma in which the content increases or expands in scope and sequence as students move through the various levels of the courses available.

The following items are to serve as guidelines for implementing this requirement:

- The two sequential electives may be in any discipline as long as the courses are not specifically required for graduation.
- Courses used to satisfy the one unit of credit in fine or practical arts required for the standard or modified standard diploma may be used to partially satisfy this requirement.
- A sequence that includes an exploratory course followed by an introductory course cannot be used to satisfy this requirement; however, an introductory course followed by another level of the same course of study can be used.
- Students may take the focused sequence of elective courses in consecutive years or any two years of high school.

VERIFIED CREDITS IN CAREER AND TECHNICAL EDUCATION

STANDARD AND VERIFIED CREDITS

A *standard credit* is based on a minimum of 140 clock hours of instruction and successful completion of the requirements of the course.

A *verified credit* is based on a standard credit plus a passing score on the end-of-course SOL test (or other test as described in the Standards of Accreditation 8 VAC 20-131-110B). A *standard credit* can not be verified more than once.

STUDENT-SELECTED VERIFIED CREDIT

A *student-selected verified credit* is a credit for a course that includes a test approved by the Virginia Board of Education. A student may utilize additional tests for earning a verified credit in computer science, technology, or other areas as prescribed by the Board.

STUDENT-SELECTED VERIFIED CREDIT IN CAREER AND TECHNICAL EDUCATION

A student must successfully complete a course or course sequence that prepares him or her to earn board-approved credentials, and the assessment required by the certifying or licensing agent.

CRITERIA FOR AWARDING STUDENT-SELECTED VERIFIED CREDIT

- ✓ Student-selected verified credit will be awarded for credential or licensure examinations that meet all of the following criteria:
 - ❖ Industry certification or licensure examinations that are approved to satisfy the requirements for the Board of Education’s Career and Technical Education Seal and the Board of Education’s Seal of Advanced Mathematics and Technology will satisfy requirements for student-selected verified credits.

- ❖ For the teacher certification requirements: for students to receive student-selected verified credits, the teacher must be certified by the issuing organization relative to the industry certification or licensure. In the case of a CTE program area where there are potential multiple certifications, the teacher must hold at least one industry certification that is related to the course and/or course sequence. Exception: There is not teacher certification requirement for students to receive verified credits upon passing a selected NOCTI assessment related to their CTE program.
- ❖ A standard credit may not be verified more than once.

EARNING STUDENT-SELECTED VERIFIED CREDIT

- ✓ One student-selected verified credit will be awarded for passing each certification or licensure examination that meets all of the above criteria and the student earns one standard unit of credit only in the career and technical education concentration or specialization.
- ✓ Two student-selected verified credits will be awarded for passing each certification or licensure examination or occupational competency assessment that satisfies all of the above criteria; and meets the CTE concentration or specialization course requirements for a program completer, and earns at least two standard units of credit in the CTE concentration or specialization.

Certifications and Licenses Approved by the Board of Education to Count toward a Student-Selected Verified Credit AND available in Prince William County are as follows:

COURSE(S)	CERTIFICATION	ISSUING ORGANIZATION
Computer Networking Hardware Operations I, II, III, IV (854291, 849891, 854392, 849892, 854491, 849893, 854592, 849894)	CCNA End of Course Examinations (Pass any two end of course exams, Levels 1-4)	CISCO Systems, Inc
IT Essentials (665181, 841681)	IT Essentials I Examination (PC Hardware and Softwarw)	CISCO Systems

COURSE(S)	CERTIFICATION	ISSUING ORGANIZATION
IT Essentials 2 (665182, 849894)	IT Essentials 2 Examination (Networking Operating Systems)	CISCO Systems
IT Foundations (667080)	IC3	Certiport
Auto Technology (8507, 8508)	ASE (Pass any one exam from Automobile Technician Test Series)	National Institute for Automotive Service Excellence
Computer Systems Technology (8622, 8623)	A+ Certification	CompTia
Cosmetology (8527, 8528)	Cosmetology License	VA Department of Professional and Occupational Regulations
IT Database Design and Management / Oracle (666080, 681070, 666180, 681071)	Oracle Certification Program Exams	Oracle
IT Design, Multimedia Web Technology (CIW) (663080, 681080) IT Advanced Design Multimedia Web Technology (CIW) (663180, 681071)	CIW Professional (pass any one exam in this program)	ProSoft
Marketing Sequences: General Marketing Fashion Marketing SERM Hotel/ Motel Marketing (8120, 8121, 8130, 8131, 8140, 8141, 8145, 8146, 8175, 8176, 8177, 8178, 8160, 8161)	Fundamental Concepts of Business and Marketing Certification	ASK Institute
Marketing Sequences: General Marketing Fashion Marketing SERM Advanced SERM Hotel/ Motel Marketing (8120, 8121, 8130, 8131, 8140, 8141, 8145, 8146, 8175, 8176, 8177, 8178, 8160, 8161)	National Professional Certification in Customer Service	National Retail Federation Foundation
Practical Nursing I (8358)	Nurse Aide	Virginia Board of Nursing
Computer Information Systems 6612 Advanced Computer Information Systems (661301)	Microsoft Office Specialist (Pass any one MOS exam)	Microsoft
Engineering Drawing/ Design CAD (843600, 843620, 843680) Architectural Drawing/CAD (843700, 843720) Technical Drawing (8435)	AutoCAD Certifications (Pass any one exam)	AutoDesk



AGRICULTURE

All agricultural courses will count toward meeting the one-credit practical arts requirement for graduation.

AGRICULTURAL MECHANICS AND BASIC PLANT SCIENCE (8006)

Grades: 9

Prerequisite: None

Credit: 1

Half of this course is devoted to agricultural mechanics, with emphasis placed on skill development in basic metals, tool fitting and cold metals, basic arc welding, sheet metal, soldering and brazing, plan reading and sketching, and hand woodworking. The remainder of the course emphasizes the development of competencies in plant sciences, rural and urban living, leadership, and resource conservation.

School offering: 1

HORTICULTURE SCIENCES (8034)

Grades: 10-12

Prerequisite: Agricultural Mechanics and Basic Plant Science is recommended

Credit: 1

In this course, 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. Instruction is provided in safety and leadership development.

School offering course: 1

LANDSCAPING (8036)

Grade: 11 or 12

Prerequisite: Agricultural Mechanics and Basic Plant Science

Credit: 1

In this course, students develop the necessary 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.

School offering course: 1

FLORICULTURE SCIENCES (8038)

Grades: 11-12

Prerequisite: Landscaping

Credit: 1

Students learn the basics of the horticulture plant production industry. Instruction includes the science of plant production as well as marketing and business management. Plant material identification and floral design round out to prepare the student for an entry-level position in the floriculture industry.

School offering course: 1



BUSINESS AND INFORMATION TECHNOLOGY

All business and marketing courses will count toward meeting the one-credit practical arts requirement for graduation.

PRINCIPLES OF BUSINESS AND MARKETING (6115)

Grades: 9-10

Prerequisite: None

Credit: 1

Students discover the roles of business and marketing in the free enterprise system and the global economy. Basic financial concepts of banking, insurance, credit, inheritance, taxation, and investments are investigated to provide a strong background as students prepare to make sound decisions as consumers, wage earners, and citizens. The real world impact of technology, effective communication, and interpersonal skills are evident throughout the course. This course also supports career development skills and explores career options.

Schools offering course: All except 99

WORD PROCESSING (6152)

Grades: 9-12

Prerequisite: None

Credit: 1

Students develop intermediate to advanced level word processing skills using a variety of software functions, including graphics, desktop publishing, and telecommunications. Students gain competence integrating other applications such as database and spreadsheet into word processing activities. Classroom experiences also provide skill development in communication.

Schools offering course: All except 99

OFFICE SPECIALIST I (6740)

OFFICE SPECIALIST II (6741)

OFFICE SPECIALIST III (6742)

Grades: 9-12

Prerequisite: None

Credit: 1

Students can progress in this sequence until prepared to transfer to other business courses. Students develop skills in areas including keyboarding, word processing, office procedures, and records management. An individualized plan of study is used.

Schools offering course 6740: 2, 4, 5, 6, 7, 8, 10

Schools offering course 6741: 2, 4, 5, 6, 7, 8, 10

Schools offering course 6742: 2, 4, 5, 6, 7, 8

OFFICE ADMINISTRATION (6621)

Grades: 10-12

**Prerequisite: Word Processing
Qualifies for Cooperative Education**

Credit: 1

Students enhance word processing and communication skills as they develop competencies needed by administrative support professionals. Students study office procedures such as information processing, telecommunications, electronic records management, and financial records management.

Schools offering course: 1, 3, 4, 7

LEGAL SYSTEMS ADMINISTRATION (6735) (6736)

Grades: 10-12

Prerequisite: Word Processing

Qualifies for Cooperative Education

Credit 6736: 1/2 credit

Credit 6735: 1 credit

Students wishing to gain employment in the legal field may take this course to learn how to use legal terminology and procedures useful in preparing legal documents and to function effectively in a law office.

Schools offering course: 3

MEDICAL SYSTEMS ADMINISTRATION (6730) (6731)

Grades: 10-12

Prerequisite: Word Processing

Qualifies for Cooperative Education

Credit 6731: 1/2 credit

Credit 6730: 1 credit

Students wishing to gain employment in the medical field may take this course to learn how to use medical terminology and procedures useful in preparing medical documents and to function effectively in a medical office environment.

Schools offering course: 2, 3

BUSINESS MANAGEMENT (6136)

Grades: 10-12

Prerequisite: None

Credit: 1/2

Students study basic management concepts and leadership styles as they explore business ownership, planning, operations, marketing, finance, economics, communications, the global marketplace, and human relations. Quality concepts, project management, problem solving, and ethical decision making are an integral part of the course.

Schools offering course: All except 99

BUSINESS LAW (6132)

Grades: 10-12

Prerequisite: None

Credit: 1/2

Students examine the foundations of the American legal system. Students explore economic and social concepts as they relate to legal principles and to business and personal laws.

Schools offering course: All except 99

DIGITAL INPUT TECHNOLOGIES (6161)

Grades: 9-12

Prerequisite: None

Credit: 1

Digital Input Technologies introduces students to emerging tools to prepare students for using tools that are becoming standard in the workplace and everyday life.

School offering course: 5, 8

ACCOUNTING (6320)

Grades: 10-12

Prerequisite: None

Qualifies for Cooperative Education

Credit: 1

Students study the basic principles, concepts, and practices of the accounting cycle. Students learn fundamental accounting procedures using a manual and an electronic system.

Schools offering course: All except 99

ADVANCED ACCOUNTING (6321)

Grades: 11-12

Prerequisite: Accounting

Qualifies for Cooperative Education

Credit: 1

Students gain in-depth knowledge of accounting procedures and techniques used to solve business problems and make financial decisions. Students use accounting and spreadsheet software to analyze and interpret business application.

Schools offering course: All except 99

COMPUTER INFORMATION SYSTEMS (6612)

Grades: 10-12

Prerequisite: Word Processing

Qualifies for Cooperative Education

Credit: 1

Students apply problem-solving skills to real-life situations through word processing, spreadsheets, databases, multimedia presentations, and integrated software activities. Students work individually and in groups to explore computer concepts, operating systems, networks, telecommunications, and emerging technologies.

Schools offering course: All except 99

ADVANCED COMPUTER INFORMATION SYSTEMS (661301)

Grades: 11-12

Prerequisite: Computer Information Systems

Qualifies for Cooperative Education

Credit: 1

Students apply problem-solving skills to real-life situations through advanced integrated software applications, including multimedia presentations, including printed, electronic, and Web publications. Students work individually and in groups to explore advanced computer maintenance activities, Web site development, programming, networking, emerging technology, and employability skills.

Schools offering course: All except 99

IGCSE ADVANCED COMPUTER INFORMATION SYSTEMS (661340)

Grades: 11-12

Prerequisite: A grade of "B" or better in Word Processing (6152) or teacher recommendation

Credit: 1

IGCSE Advanced Computer Information Systems helps students develop their knowledge and skills of information technology equipment, systems and applications. Students learn how to use IT to enhance their work in other subject areas and in practical, work-related situations. Consideration is also given to the impact of new technologies on social, economic, ethical and moral issues. Successful completion of this course will result in an IGCSE or an ICE certification.

School offering course: 1

PROGRAMMING (6640)

Grades: 10-12

Qualifies for Cooperative Education

Prerequisite: None

Credit: 1

Students explore computer concepts, use logic procedures, and implement programming procedures using one or more programming languages.

Schools offering 6640: 2, 3, 5, 6, 10

IT WEB PROGRAMMING (664080)

Grades: 10-12

Prerequisite: None

Credit: 1

Web programming introduces students to programming for the Web Applications. Emphasis is placed various tools used for web development. Current software and programming languages are taught.

Schools offering: 8, 9

ADVANCED PROGRAMMING (6641)

Grades: 11-12

Qualifies for Cooperative Education

Prerequisite: Programming

Credit: 1

Students use their knowledge of computer concepts, logic procedures, and object-oriented programming to develop an advanced level program application in one or more programming languages.

Schools offering course: 2, 3, 5, 6, 9, 10

DESIGN, MULTIMEDIA AND WEB TECHNOLOGIES (663001)

Grades: 10-12

Prerequisite: Word Processing

Qualifies for Cooperative Office Education (COE)

Credit: 1

Students develop proficiency 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 design portfolios that may include business cards, newsletters, mini-pages, Web pages, multimedia presentation/projects, calendars, and graphics.

Schools offering course: All except 99

ADVANCED DESIGN, MULTIMEDIA AND WEB TECHNOLOGIES (663101)

Grades: 11-12

Prerequisite: Design, Multimedia and Web Technologies

Credit: 1

Students develop advanced skills in creating interactive media, Web sites, and publications for print and electronic distribution. Students work with sophisticated hardware and software, applying skills learned to real-world projects.

Schools offering course: All except 99

IT DESIGN/MULTIMEDIA/WEB TECHNOLOGIES (663080)

IT DESIGN/MULTIMEDIA/WEB TECHNOLOGIES (681080) dual enrollment

Grades: 11-12

Prerequisite: IT Fundamentals and/or teacher recommendation

Credit: 1

Students will develop an in-depth understanding of the Internet and essential Web page development skills using Extensible HTML, and incorporating images, hyperlinks, tables, forms and frames. Students will learn to write code manually, as well as use GUI authoring tools. Industry certification competencies will be used for this course.

School offering 663080: 8, 9

School offering 681080: 9

IT ADVANCED DESIGN/MULTIMEDIA/WEB TECHNOLOGIES (663180)

IT DESIGN/MULTIMEDIA/WEB TECHNOLOGIES (681081) dual enrollment

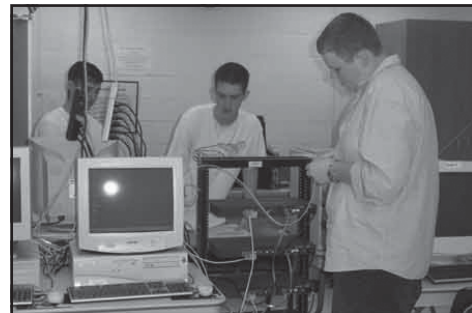
Grades: 11-12

Prerequisite: IT Design/Multimedia/Web Technologies

Credit: 1

Students will engage in Web Site Development Process using HTML, XHTML, Dynamic HTML, XML, Server-side technologies, Java applets, tables, frames, metadata and Cascading Style Sheets. Industry certification competencies will be used for the course.

School offering course: 9



COOPERATIVE EDUCATION (6799)

Grades: 11-12

Prerequisite: Enrollment in one of the approved business education programs: Accounting, Advanced Accounting, Computer Information Systems, Advanced Computer Information Systems, Office Administration, Legal Administration, Medical Systems Administration, Programming, Advanced Programming, Desktop/Multimedia and Web Technologies, and Advanced Desktop/ Multimedia and Web Technologies.

Credit: 1

Cooperative Education is a one- or two-year course offered to eleventh and twelfth grade students who are enrolled in one of the approved business education programs. It is the supervised, on-the-job instructional phase of an occupational preparation program in business education. While enrolled in an appropriate business education class, the student also continues their business education coordinated in a related business. The teacher-coordinator develops with the on-the-job sponsor and the student an individualized training plan identifying learning experiences related to the student's occupational objective. Cooperation Education may be taken more than once for credit.

Schools offering course: 1, 2, 3, 4, 7, 10

FINANCE (6120)

Grades: 10-12

Prerequisite: None

Credit: 1

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.

Schools offering course: All except 99

ENTREPRENEURSHIP (9094)

Grade: 10-12

Prerequisite: None

Credit: 1

This course is designed for students who wish to concentrate on strategies for career development through ownership/management of their own businesses. Although individual skills are emphasized, the focus of the course is on development of a business plan, including the following: determination of business enterprise, legal considerations, location selection, steps in getting the enterprise started, marketing strategy, and interaction with successful entrepreneurs.

Schools offering course: 2, 3, 5, 7, 9, 10

COMPUTER NETWORK SOFTWARE OPERATIONS (665080)

Grade Levels: 10-12

Prerequisite: None

Credit: 1

Computer Network Software Operations is designed to teach many aspects of computer support and network administration. Students learn networking concepts, from usage to components, and set up peer-to-peer network systems and client server networks. Students install and configure network cards and connect them to networks. Students learn how to install the operating systems, set up and manage accounts, load software, and set up security plans.

School offering course: 9

ADVANCED COMPUTER NETWORK SOFTWARE OPERATIONS (665180)

Grades: 11-12

Prerequisite: Computer Network Software Operations

Credit: 1

This course is designed to continue teaching aspects of network administration focusing on management and support of network users and systems. Time is spent discussing responsibilities of computer professionals, training end users, evaluating new technology, developing system policies, troubleshooting workstations, managing network services and protocols, and effectively using e-mail and business communications. Students learn communication protocols, troubleshooting techniques for systems and client server networks, Web site management, and other advanced topics. They learn advanced techniques to install the operating systems, set up and manage accounts, load software, and set up and implement security plans.

School offering course: 9

INTERNATIONAL BUSINESS AND MARKETING (614870)

Grades: 10-12

Prerequisite: Enrollment in a foreign language course either concurrently or prior to enrolling in this course

Credit: 1

International Business and Marketing is a specialized course for students with a career interest in the field of international studies. Students gain an understanding of the various careers in international trade, finance, shipping, and marketing and consider fundamental concepts, principles, and theories of business in an international culture, concepts, practices, and applications. Domestic and foreign internships may be available to provide students with additional opportunities for hands-on experiences in international business.

School offering course: 7

INFORMATION TECHNOLOGY FUNDAMENTALS (667080)

Grades: 9-10

Prerequisite: Acceptance into IT Program

Credit: 1

Information Technology Fundamentals introduces the essential skills needed for students to pursue specialized programs leading to technical and professional careers and certifications in the IT Industry. Students have an opportunity to investigate career opportunities in four major IT areas: Information Services and Support, Network Systems, Programming and Software Development, and Interactive Media. Students explore ethical issues related to computers and Internet technology and develop teamwork and communication skills that will enhance employability.

Schools offering course: 8, 9

IB BUSINESS AND MANAGEMENT (IB613550)

Grades: 11-12

Prerequisite: Enrollment in IB Program

Credit: 1

IB Business and Management is a recognized International Baccalaureate course. This course is designed to provide a rigorous and critical study of the ways in which individuals and groups interact in a dynamic business environment. It examines how business decisions are made, how these decisions make an impact on internal and external environments, and how these decisions foster international cooperation and responsible citizenship.

School offering course: 2

IB INFORMATION TECHNOLOGY IN A GLOBAL SOCIETY (IB661350)

Grades: 11-12

Prerequisite: Enrollment in IB Program

Credit: 1

IB Information Technology in a Global Society is a recognized International Baccalaureate course. This course is designed to promote an understanding and appreciation of the social significance of information technology and networking as students analyze and evaluate in a critical manner the impact and ethical considerations arising from the widespread use of information technology and networking. This course focuses on how information systems and networks are used to process and exchange information for control, analysis, and communications.

School offering course: 2

IT DATABASE DESIGN AND MANAGEMENT (Oracle) (666080)

IT DATABASE DESIGN AND MANAGEMENT (Oracle) (681070) dual enrollment

Grades: 11-12

Prerequisite:

Credit: 1

The emphasis of this course is database design and programming. Students study database fundamentals to include database development, modeling, design, and normalization. In addition, students are introduced to database programming. Students gain the skills and knowledge needed to use features of database software and programming to manage and control access to data. Industry certification competencies will be used throughout this course.

Schools offering course: 8, 9

IT ADVANCED DATABASE DESIGN AND MANAGEMENT (666180)

IT ADVANCED DATABASE DESIGN AND MANAGEMENT (681071) dual enrollment

Grade: 12

Prerequisite: Database Design and Management

Credit: 1

Students study Java programming and Java database applications. The basics of object-oriented programming and the Java programming language are emphasized in this instruction. Students will prepare for industry certification in database applications and programming. Industry certification course competencies will be used for this course.

School offering course: 9



MARKETING

PRINCIPLES OF BUSINESS AND MARKETING

**(8115) (611520 – Woodbridge
HS Only)**

Grades: 9-10

Prerequisite: None

Credit: 1

Students discover the roles of business and marketing in the free enterprise system and the global economy. Basic financial concepts of banking, insurance, credit, inheritance, taxation, and investments are investigated to provide a strong background as students prepare to make sound decisions as consumers, wage earners, and citizens. The real world impact of technology, effective communication, and interpersonal skills are evident throughout the course. This course also supports career development skills and explores career options.

Schools offering course: All except 99

MARKETING

Credits 8120: 2 credits include cooperative education

Credit 8121: no-cooperative education

Grades: 11-12

Prerequisite: None

Students are introduced to functions and foundations involved in the marketing of goods, services, and ideas and achieve 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 necessary for success in marketing occupations. Academic skills (mathematics, science, English, and history/social science) related to the content are a part of this course. Computer/technology applications supporting this course are studied.

Schools offering course: 2, 3, 4, 9, 10

ADVANCED MARKETING

Credits 8130: 2 credits includes cooperative education

Credit 8131: 1 credit no cooperative education

Grade: 12

Prerequisite: Marketing 8120 or 8121

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. Academic skills (mathematics, science, English, and history/social science) related to the content are a part of this course. Computer/technology applications supporting this course are studied.

Schools offering course 8130: 2, 4, 10

Schools offering course 8131: 2, 4, 9

MARKETING MANAGEMENT (8132)

Grade: 12

Prerequisite: None

Credits: 1

High school seniors who plan to attend college with a concentration in marketing, business, or management and/or have tentative plans to manage or own a business will benefit from this course. Students develop critical-thinking and decision-making skills through the application of marketing principles to (a) small and large business, (b) nonprofit organizations, (c) the professions, (d) service industries, and (e) other institutions or associations that market products, services, ideas, or people. Academic skills (mathematics, science, English, and history/social science) related to the content are a part of this course. Computer/technology applications supporting this course are studied.

School offering course: 3

INTERNET MARKETING (8125)

Grades: 11-12

Prerequisite: None

Credit: 1

Students learn about the paperless exchange of business and marketing information, using technology (e.g., Internet, e-mail, electronic data interchange, and electronic funds transfer). Included in this course is an overview of the technology of Web servers, clients, and net infrastructure and the background of this fast-growing market; the economics of electronic markets; marketing research; advertising on the Web and Web page basics; pricing information; security and encryption; and online business opportunities. Academic skills (mathematics, science, English, and history/social science) related to the content are a part of this course. Computer/technology applications supporting this course are studied.

Schools offering course: 2, 3, 4, 7

FASHION MARKETING

Credits 8140: 2 credits includes cooperative education

Credit 8141: 1 credit no cooperative education

Grades: 11-12

Prerequisite: None

In this specialized course, students gain basic knowledge of the apparel and accessories industry and skills necessary for successful employment in apparel businesses. Students will develop general marketing skills necessary for successful employment in fashion marketing, general marketing skills applicable to the apparel and accessories industry, and specialized skills unique to fashion marketing. Personal selling, sales promotion, purchasing, physical distribution, marketing planning, and product/service technology as well as academic skills (mathematics, science, English, and history/social science) related to the content are part of this course. Computer/technology applications supporting this course are studied.

Schools offering course: 2, 3, 4, 7, 9

ADVANCED FASHION MARKETING

Credits 8145: 2 credits includes cooperative education

Credit 8146: 1 credit no cooperative education

Grade: 12

Prerequisite: Fashion Marketing 8140 or 8141

Students with a career interest in apparel and accessories marketing gain in-depth knowledge of the apparel and accessories industry and skills important for supervisory-management employment in apparel businesses. They develop advanced competencies 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 as well as academic skills (mathematics, science, English, and history/social sciences) related to the content are part of this course. Computer/technology applications supporting this course are studied.

Schools offering course: 2, 3, 4, 7, 9

SPORTS, ENTERTAINMENT, AND RECREATION MARKETING

Credits 8175: 2 credits includes cooperative education

Credit 8176: 1 credit no cooperative education

Grades: 10-12

Prerequisite: None

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

Schools offering course: 2, 3, 4, 6, 7, 9

ADVANCED SPORTS, ENTERTAINMENT, AND RECREATION MARKETING

Credits 8177: 2 credits includes cooperative education

Credit 8178: 1 credit no cooperative education

Grade: 11-12

Prerequisite: Sports, Entertainment, and Recreation Marketing 8175 or 8176

Students will build on prior knowledge of sports, entertainment, and recreation marketing. This course focuses on the principles of management and planning supported by research, financial, and legal concepts. Students will be able to plan and execute an event; develop a career plan, and establish a sports, entertainment, and recreation product/business. Academic skills (mathematics, science, English, and history/social science) related to the content are a part of this course. Computer/technology applications supporting this course are studied.

Schools offering course: 2, 4, 7, 9

HOTEL/ MOTEL MARKETING

Credits 8160: 2 credits includes cooperative education

Credit 8161: no cooperative education

Grade: 11-12

Prerequisite: None

In this specialized course, students with a career interest in the field of hospitality and recreation develop skills in the areas of hotel front-office procedures, human relations, food and beverage service, purchasing, tourism, travel, and sales promotion. In addition, students obtain a thorough understanding of the hotel-motel industry and the career options available. Academic skills (mathematics, science, English, and history/social science) related to the content are part of this course. Computer/technology applications supporting this course will be included.

Schools offering course: 2

ADVANCED HOTEL/MOTEL MARKETING

Credits 8162: 2 credits includes cooperative education

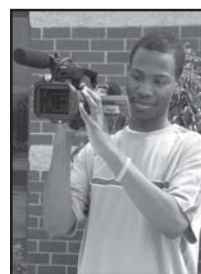
Credit 8163: 1 credit no cooperative education

Grade: 12

Prerequisite: Hotel/Motel Marketing 8160 or 8161

Students gain in-depth knowledge of the marketing functions within the hotel-motel industry and the management responsibilities for those functions. They develop advanced skills in the area of hotel-motel operation in which they choose to specialize.

Schools offering course: 2



COMMUNICATIONS, ARTS AND MEDIA PRODUCTION

All communications courses will count towards meeting the one-credit practical arts requirement for graduation.

INTRODUCTION TO GRAPHIC COMMUNICATIONS (8458)

Grades: 9-12

Prerequisite: None

Credit: 1

Graphic design allows students to work with typed images, graphic illustrations, and photographs, to produce pleasing, well-balanced layouts for reproduction. Students will study the elements of design and use Adobe PageMaker, Photoshop, and Illustrator software to generate images. Lessons taught will include software usage, digital camera operation, and all basic steps for reproducing multiple copies of a graphic image with silkscreen and offset printing techniques.

Schools offering course: 2, 3, 4, 5, 6, 8, 10

ADVERTISEMENT DESIGN (847245)

Grades: 10-12

Prerequisite: Introduction to Graphic Communications

Credit: 1

Students will learn to design and create layouts that convey a particular message common to advertisements. They will learn how to manipulate text, graphics, and photographs so that they come together in pleasing designs. Major emphasis will be placed on using all aspects of the computer software that enable students to be creative to the point of delivering various design products. A study of how these products are reproduced in quantity will also be examined and experienced as students complete projects.

Schools offering course: 2, 3, 4, 5, 6, 10

VIDEO AND MEDIA TECHNOLOGY (849720)

Grades: 9 – 12 (HHS grades 9-10 only)

Prerequisite: None

Credit: 1

Video and Media Technology is an introductory course to television production designed to provide students with experience and awareness in the electronic visual media. Students are introduced to camera operation, studio and electronic news gathering, television lighting, audio recording, script writing, and editing techniques. Producing and directing television news, commercials, and full-length programs are also explored. This competency-based course is well suited to students who have a keen sense of public relations and teamwork.

Schools offering course: 7, 8, 9

TELEVISION PRODUCTION I (868801)

Grades: 10-11

Prerequisite: Exploring TV Production (8472) is strongly recommended

Credits: 1

Television Production I is a first-level course designed to introduce students to the theory and operation of video production equipment. Emphasis is placed on proper use and application of communication technology to achieve specific objectives. Students are actively involved in both field and studio productions with a variety of purposes. The student will learn how to operate TV cameras, associated audio equipment, video switching and processing equipment, recorders, and editors.

Schools offering course: Available to ALL high school students through an application process to Hylton High School

TELEVISION PRODUCTION II (868900)

Grade: 11 - 12

Prerequisite: Television Production I

Credits: 2

Television Production II provides students with the opportunity to build on the skills learned in Television Production I with emphasis being placed on direction and production. Importance is placed on using program proposals, scripts, and storyboards to produce refined professional productions. Student leadership and independence is stressed.

Schools offering course: 7

TELEVISION PRODUCTION III/PRACTICUM (8690)

Grade: 12

Prerequisite: Television Production II

Credit: 1

This course focuses on the practical application of advanced broadcast productions. It is an opportunity to provide students with the experience they need for a successful school-to-work transition. This course provides advanced students with an opportunity for early release from school to successfully work 15-20 hours per week at a television station, video production house, or other broadcast-related facility.

Schools offering course: 7



TECHNOLOGY EDUCATION

All Engineering and Industrial Technology courses will count toward meeting the one-credit practical arts requirement for graduation.

FOUNDATIONS OF TECHNOLOGY (8403)

Grades: 9-12

Prerequisite: Exploring Technology Education – MS

Credit: 1

This is the beginning high school course in the Design and Technology program. Students will acquire a foundation in technological material, energy, and information and apply processes associated with the technological thinker. Challenged by laboratory activities, students create new ideas and innovations, build systems, and analyze technological products to learn further how and why technology works. Students work in groups to build and control systems with engineering in the development of a technology.

Schools offering course: All except 99

TECHNICAL DRAWING

(8435) 36 weeks

(843480) 18 weeks (Battlefield HS only)

Grades: 9-12

Prerequisite: None

Credit: 1

Students in this class will create technical drawings using the AutoCAD Design Academy software. Problem solving skills will be developed as students produce drawings in each of the following categories: line, orthographic, section, auxiliary, oblique, isometric, perspective, developments, civil engineering, working drawings, and three-dimensional drawings. This course provides a foundation for students interested in careers that include: engineering; architecture; drafting; surveying; illustration; animation; construction; model making etc. This course helps students develop the organizational skills necessary to attack problems systematically and methodically and to analyze and plan strategies for project completion.

Schools offering course: All except 99

ARCHITECTURAL DRAWING/DESIGN/CAD (843700; 843720)

Grades: 10-12

Prerequisite: Technical Drawing

Credit: 1

Architectural Drawing/Design/CAD is an advanced drawing and design course, which provides students the opportunity to learn about the principles of architecture and increase understanding of working drawings and construction techniques learned in the prerequisite course. Experiences include residential

and community planning. Students use computer-aided drawing and design (CAD) equipment and established standards or codes. They prepare models to present and market architectural designs. The course provides information helpful for the homeowner/homebuilder and is especially beneficial to the future architect or engineer.

Schools offering course: All except 99

ENGINEERING DRAWING/DESIGN/CAD

(843600; 843620) 36 weeks

(849380) 18 weeks (Battlefield HS only)

Grades: 10-12

Prerequisite: Technical Drawing

Credit: 1

Engineering Drawing/Design/CAD is an advanced drawing and design course that enables students to use a graphic language for product design, technical illustration, assembly, patent, and aeronautical drawings. It increases their understanding of drawing techniques learned in the prerequisite course. Students use computers, calculators, and descriptive geometry and adhere to established standards to solve design problems.

Schools offering course: All except 99

CONSTRUCTION TECHNOLOGY (8431)

Grades: 9-12

Prerequisite: None

Credit: 1

Construction Technology provides students with introductory experiences relating to the construction industry. Laboratory activities will be in areas such as masonry, plumbing, electrical wiring, drywall, house framing, site planning, and roofing.

Schools offering course: 1, 2, 3, 5, 6, 7, 8, 10

ELECTRONICS TECHNOLOGY (841600; 843620)

Grades: 10-12 (9-12 Gar-Field & Osbourn Park)

Prerequisite: Basic math and algebra recommended

Credit: 1

Electronics Technology is an introductory course that combines theory and hands-on activities and lab experiments to learn about electronic parts, how these components work together, and tool and equipment usage. The student will breadboard circuits and make necessary measurements and calculations to complete laboratory experiments.

Schools offering course: 2, 3

POWER AND TRANSPORTATION TECHNOLOGY

(8445)

Grades: 10-12 (Gar-Field 9-12)

Prerequisite: None

Credit: 1

Power and Transportation Technology is a course that offers a student the opportunity to experience various methods of power transmission and transportation modes. Problem-solving activities and the development of critical thinking skills will be incorporated while working in the areas of small gas engines, hydraulics, pneumatics, electric motors, and various forms of transportation.

School offering course: 2

CHALLENGES OF ENGINEERING I/ (8490)

Grades: 10-12

Prerequisite: Geometry

Credit: 1

This course provides an orientation to the careers and challenges of engineering. Students are actively involved in hands-on activities in engineering graphics, machining, fluid power, electronics, materials testing and technical drawing. Through these activities students learn to solve problems by applying math and science principles. Students communicate information through seminars, technical reports and sharing ideas in-group activities.

Schools offering course: 1, 3, 7, 8, 10

CHALLENGES OF ENGINEERING I/ ROBOTICS

(849080)

Grades: 10-12

Prerequisite: Geometry

Credit: 1

This course provides an orientation to the careers and challenges of engineering. Students are actively involved in hands-on activities in engineering graphics, machining, fluid power, electronics, materials testing, robotics and computer technology. Through these activities students learn to solve problems by applying math and science principles. Students communicate information through seminars, technical reports and sharing ideas in-group activities.

Schools offering course: 3, 9

CHALLENGES OF ENGINEERING II (8491)

Grades: 11-12

Prerequisite: Challenges of Engineering I

Credit: 1

This course emphasizes the design process in engineering. Students form engineering teams and select a group design project. Each team uses communications, graphics, mathematics, and community personnel to solve problems. Appropriate information is learned by each team in order to complete a project. Projects may be models, systems or products that creatively solve an engineering problem.

Schools offering course: 1, 3, 4, 7, 10

CHALLENGES OF ENGINEERING II / ROBOTICS

(849180)

Grades: 11-12

Prerequisite: Challenges of Engineering I/Robotics

Credit: 1

This course emphasizes the design process in engineering. Students form engineering teams and select a group design project. Each team uses communications, graphics, mathematics, and community personnel to solve problems. Appropriate information is learned by each team in order to complete a project. Projects may be models, systems or products that creatively solve an engineering problem.

Schools offering course: 9

AICE ENGINEERING TECHNOLOGY (849140)

Grades: 11-12

Prerequisite: A grade of "B" or better in Challenges of Engineering I and teacher recommendation

Credit: 1

This course offers students the opportunity to engage in studies that relate broadly to the disciplines of Engineering and Management. Knowledge from the fields of design, materials, energy, control, electronics, pneumatics and structures is applied in a systematic manner to answer a need identified by the student. Students will investigate and develop specialist areas of interest within Design and Technology through a required coursework project. Through

external written examinations and coursework projects, students may qualify for an Advanced International Certificate of Education Diploma.

School offering Course: 4

INTEGRATED ENGINEERING SYSTEMS TECHNOLOGY I (IEST) (8425)

Grade: 11

Prerequisite: Foundations of Technology recommended

Credits: 1

During the first year of the program, students will be introduced to various career fields in manufacturing and engineering. Emphasis will be placed on the major systems in automated manufacturing, including: design, electrical, mechanical, manufacturing processes, material handling, and quality control. Students will participate in teams, in a modular classroom setting, to produce manufacturing projects that demonstrate critical elements of manufacturing and develop critical thinking skills.

Schools offering course: Open to all students. Students must transfer to Gar-Field for course.

PROJECT LEAD THE WAY (PLTW) ENGINEERING PROGRAM AT WOODBRIDGE SENIOR H.S.

This program provides an enriched sequence of five courses that will prepare students for college level engineering courses. Students entering this program of study must be completing a college prep sequence of math and science. The program consists of the following five courses.

INTEGRATED ENGINEERING SYSTEMS TECHNOLOGY II (IEST) (8427)

Grade: 11

Prerequisite: Integrated Engineering Systems Technology I

Credit: 1

This course will help students to develop an in-depth understanding of automation and its applications in manufacturing. Activities in this program will center on flexible manufacturing processes and Computer Integrated Manufacturing. Students work in teams to solve complex interdisciplinary problems that stem from the major systems in automated manufacturing.

School offering course: 2

PRINCIPLES OF ENGINEERING (PLTW) (844160)

Grades: 9-12

Prerequisite: Must be completing college level sequence of math and science

Credit: 1

Principles of Engineering is a course that helps students to understand the field of engineering/engineering technology. Exploring various technology systems and manufacturing processes helps students learn how engineers and technicians use math, science and technology to use an engineering problem-solving process to benefit people.

Schools offering course: 5, 6

INTRODUCTION TO ENGINEERING DESIGN (PLTW) (843960)

Grades: 9-10

Prerequisite: Must be completing college level sequence of math and science

Credit: 1

Introduction to Engineering Design is a course that teaches problem-solving skills using a design development process for products. Models of product solutions are created, analyzed and communicated using solid modeling computer design software.

School offering course: 6

DIGITAL ELECTRONICS (PLTW) (844060)

Grades: 9-12

Prerequisite: Must be completing college level sequence of math and science

Credit: 1

Digital Electronics is a course in applied logic that encompasses the application of electronic circuits and devices. Computer simulation software is used to design and test digital circuits prior to the actual construction of circuits and devices.

School offering course: 6

CIVIL ENGINEERING AND ARCHITECTURE (843761)

Grades: 11-12

Prerequisite: Must be completing college level sequence of math and science

Credit: 1

Students will develop a portfolio using AutoCAD 2004 Architectural Desktop and AutoDesk Inventor. Project planning, viability and development will be explored. Architectural drawings will include traditional concepts of elevations and floor plans with an expansion into mechanical, electrical and protection systems. Structures will be analyzed for load-bearing requirements on roofs, foundations, columns and beams.

School offering course: 6

ENGINEERING DESIGN AND DEVELOPMENT (PLTW) (844360)

Grades: 12

Prerequisite: Must have completed all four courses in the Project Lead the Way series or be concurrent with one class with teacher approval

Credit: 1

Engineering Design and Development is an engineering research course in which students work in teams to research, design and construct a solution to an open-ended engineering problem. Students apply principles developed in the four preceding courses and are guided by a community mentor. They must present progress reports, submit a final written report and defend their solutions to a panel of outside reviewers at the end of the school year.

School offering course: 6



OCCUPATIONAL PREPARATION COURSES (T&I)

INTRODUCTION TO AUTOMOTIVE TECHNOLOGY (850699) (TECH PREP)

Grade: 10

Prerequisite: None

Credit: 1

Students prepare for ASE Certification Exams

ADMISSION BY APPLICATION

Introduction to Automotive Technology is designed to provide the student with entry-level occupational skills in auto mechanics. A laboratory environment similar to those found in the automotive industry is used to teach students the basic concepts of automobile operation. Students will perform tasks in automotive servicing, engine analysis, brakes, steering mechanisms, alignment procedures, and basic transmission operation.

School offering course: 7 (Available to ALL high school students through an application process. Check with school counselor. Call 703-791-7297.)

AUTOMOTIVE TECHNOLOGY I (850799)

(TECH PREP)

Grade: 11

Prerequisite: Electronics Technology is recommended

Credits: 2

Students prepare for ASE Certification Exams

ADMISSION BY APPLICATION

Automotive Technology I is designed to provide the student with entry-level occupational skills in auto mechanics. A laboratory environment similar to those found in the automotive industry is used to teach students the basic concepts of automobile operation. Students will perform tasks in automotive servicing, engine analysis, brakes, steering mechanisms, alignment procedures, and basic transmission operation.

Schools offering course: 3, 7 (Course is available to ALL high school students through an application process. Check with school counselor.)

AUTOMOTIVE TECHNOLOGY II (8508)

(TECH PREP)

Grade: 12

Prerequisite: Automotive Technology I

Credits: 2

Students prepare for ASE Certification Exams

ADMISSION BY APPLICATION

Automotive Technology II is a double-period class relating to auto mechanics maintenance and repair careers. The student will develop job-entry skills in areas such as brakes, transmission, and front-end alignment. The student is expected to properly repair customers' cars in the laboratory environment using all diagnostic test equipment and safety procedures.

Schools offering course: 3, 7

AUTOMOTIVE SERVICING (8710)

Grades: 11-12

Prerequisite: None

Credits: 2

This is a two-credit, two-period class. Students learn basic shop safety, make minor repairs, tune engines, and practice routine maintenance procedures while preparing for entry-level careers in the automotive servicing industry. The study of electrical systems and components of the cooling system are included.

School offering course: 2

WELDING I (8672)

Grades: 10-12

Prerequisite: None

Credits: 2

Students will learn to use gases and/or welding processes to braze and solder metal parts according to diagrams, blueprints, or written specifications.

School offering course: 4

WELDING II (8673)

Grades: 11-12

Prerequisite: Welding I

Credits: 2

Students will learn to use gases and/or welding processes to braze and solder metal parts according to diagrams, blueprints, or written specifications.

School offering course: 4

WELDING III (8674)

Grades: 12

Prerequisite: Welding II

Credits: 2

Students will learn to use gases and/or welding processes to braze and solder metal parts according to diagrams, blueprints, or written specifications.

School offering course: 4

COMPUTER SYSTEMS TECHNOLOGY (8622)

A+ CURRICULUM

Grades: 10-12

Prerequisite: Foundations of Technology recommended

Credits: 2

Students prepare for A+ Certification Exams

This course is for students interested in a career in maintaining and servicing computers and related equipment as well as peripheral devices. Students learn to construct, troubleshoot, service, and repair computer systems, related components, and software, and install and maintain local area networks. Test instruments and diagnostic hardware and software are utilized. Students successfully completing this course may eligible to take the A+ certification exam.

School offering course: 2

COMPUTER SYSTEMS TECHNOLOGY II (8623)

Grades: 11-12

Prerequisite: Computer Systems Technology I

Credits: 2

This course is for students who have completed Computer Systems Technology I and are interested in further training in advanced theory in computer repair and networking techniques. Additional topics to be studied are "Novell" netware and "Cisco" routers. Laboratory processes and procedures will be utilized in performing troubleshooting and repair techniques. The student may be placed with local businesses for work experience.

School offering course: 2

IT ESSENTIALS I (841681)

by Tech Ed or 665181 by Business

Grade: 10 Semester I

Prerequisite: Information Technology Fundamentals recommended

Credit: 1/2

IT Essentials I: PC Hardware and Software sponsored by Hewlett-Packard Company presents an in-depth exposure to computer hardware and

operating systems. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance, and safety issues. Through hands-on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. The curriculum includes an introduction to networking and the course prepares students for CompTIA's A+ certification exam.

Schools offering course: 8, 9

IT ESSENTIALS II (841682)

by Tech Ed or 665182 by Business

Grade: 10 Semester II

Prerequisite: C or better in IT Essentials I

Credit: 1/2

IT Essentials II: Network Operating Systems, sponsored by Hewlett-Packard Company, is an intensive introduction to multi-user, multi-tasking network operating systems. Characteristics of the Linux, Windows 2000, NT, and XP network operating systems will be discussed. Students will explore a variety of topics including installation procedures, security issues, back up procedures and remote access.

Schools offering course: 8, 9

COMPUTER NETWORKING HARDWARE OPERATIONS SEQUENCE

Students prepare for CNNA Exam

COMPUTER NETWORKING HARDWARE OPERATIONS I (854291)

COMPUTER NETWORKING HARDWARE OPERATIONS I (849891) dual enrolled

Grade: 11; Semester I

Prerequisite: Algebra I and IT Essentials I (841681 or 665181), IT Essentials II (841682 or 665182) with a grade of "A" or "B" and teacher recommendation

Credits: 1/2

COMPUTER NETWORKING HARDWARE OPERATIONS II (854392)

COMPUTER NETWORKING HARDWARE OPERATIONS II (849892) dual enrolled

Grade: 11; Semester II

Prerequisite: Computer Networking Hardware Operations (854291 or 849891) formerly Network Design and Engineering I

Credits: 1/2

COMPUTER NETWORKING HARDWARE OPERATIONS III (854491)

COMPUTER NETWORKING HARDWARE OPERATIONS III (849893) dual enrolled

Grade: 12; Semester I

Prerequisite: Computer Networking Hardware Operations (854291 or 849891) formerly Network Design and Engineering II

Credits: 1/2

COMPUTER NETWORKING HARDWARE OPERATIONS IV (854592)

COMPUTER NETWORKING HARDWARE OPERATIONS IV (849894) dual enrolled

Grade: 12; Semester II

Prerequisite: Computer Networking Hardware Operations IV (854491 or 849893) formerly Network Design and Engineering III

Credits: 1/2

This is a complete four-semester program on the principles and practice of designing, building, and maintaining computer networks. The Cisco Networking Academies Program is a partnership between Cisco Systems and schools across the nation. Completion of all four semesters prepares students for



the CCNA (Cisco Certified Network Associate) exam.

Schools offering course: 8, 9

CRIMINAL JUSTICE (8702)

Grades: 11-12

Prerequisite: None

Credit: 2

Students will learn principles, techniques, and practices for pursuing careers within security and the criminal justice services system.

Schools offering course: 4, 9, 10

CRIMINAL JUSTICE II (8703)

Grades: 12

Prerequisite: Criminal Justice I

Credit: 2

Students will learn principles, techniques, and practices for pursuing careers within security and the criminal justice services system.

Schools offering course: 4, 9, 10



HEALTH AND MEDICAL SCIENCE

INTRODUCTION TO HEALTH TECHNOLOGY (8302)

Grades: 10-12 (Maximum 25 students)

Prerequisite: None

Credit: 1

This course serves as an orientation to the health care industry while preparing the student to be a better consumer of health care services. Students will study the history of medicine, current health care issues, characteristics of a good health care provider, and explore various career options within this industry. Units on medical and legal ethics, health regulations, health maintenance and disease prevention, pharmacology consumerism, and the future of the health care industry are explored.

School offering course: 3

PRACTICAL NURSING I A (8357) (18 weeks)

PRACTICAL NURSING I B (8358) (18 weeks)

students should have a basic knowledge and understanding of the technology used in select diagnostic techniques: EKG, EEG, fluoroscopy, ultrasound, laser surgery, robotics, MRI, PET scan, fiber optics, lithotripsy, hydrotherapy, pulmonary function testing, non-invasive monitoring, hemodynamic monitoring, and laboratory testing.

School offering course: 3

HUMAN ANATOMY AND PHYSIOLOGY (834532)

Grades: 10-12

Prerequisite: Successful completion of introductory Biology with a grade of 'C' or better and successful completion of, or concurrent enrollment in Chemistry

Credit: 1/2

PRACTICAL NURSING II (8359)

Grade: Adult

Prerequisite: Practical Nursing I

Credit: 0

Prepares for Licensure Exam

Practical Nursing II is an all-day, 36-week occupational preparation course offered to Practical Nursing I completers only. Classroom and clinical training are given in approved hospitals, licensed nursing homes, or home-care settings under the direction of a nurse educator. Tuition is charged for this portion of the program. Upon successful completion of the total program, students qualify to take the practical nurse licensing examination.

Schools offering course: Post-high school offering

HEALTH ASSISTANT I (8331)

Grades: 11-12

Prerequisite: None

Credits: 2

This occupational preparation program prepares students for entry-level positions in a particular health field or for advanced training in health occupations at the technical and professional levels. This course will cover personal and vocational relationships in health services, medical terminology, structure and function of the human body, concepts of normal and therapeutic nutrition, and human behavior through the life span. Professional and ethical issues in health services will be discussed throughout the course.

School offering course: 3

BIOMEDICAL TECHNOLOGY (834531)

Grades: 10-12

Prerequisite: Successful completion of introductory Biology with a grade of "C" or better and successful completion of, or concurrent enrollment, in Chemistry

Credit: 1/2

This half credit elective course investigates a variety of state-of-the-art medical procedures used in the diagnosis and treatment of disease as it relates to the human body. This course is purposed to provide a health science foundation for students interested in the technological aspects of medicine. The multi-disciplinary approach addresses the issue of the national shortage of healthcare professionals by enriching the student's perspective of the vast opportunities available in the health delivery system. By the end of this nineteen-week study, students should have a basic knowledge and understanding of the technology used in select diagnostic techniques: EKG, EEG, fluoroscopy, ultrasound, laser surgery, robotics, MRI, PET scan, fiber optics, lithotripsy, hydrotherapy, pulmonary

function testing, non-invasive monitoring, hemodynamic monitoring, and laboratory testing.

School offering course: 3

HUMAN ANATOMY AND PHYSIOLOGY (834532)

Grades: 10-12

Prerequisite: Successful completion of introductory Biology with a grade of 'C' or better and successful completion of, or concurrent enrollment in Chemistry

Credit: 1/2

This half credit elective course investigates the structure and function of the human body as it pertains to health and disease. The study is organized by body systems and introduces the student to medical terminology and technology.

This one semester course provides an introduction to the basic facts of human anatomy and physiology. Students mastering the course content gain a strong foundation upon which to build further health science study.

School offering course: 3



FAMILY AND CONSUMER SCIENCE

All Family and Consumer Science courses will count toward meeting the one-credit practical arts requirement for graduation.

RESOURCE MANAGEMENT (8219)

Grades: 9-12

Prerequisite: None

Credit: 1

Students enrolled in Resource Management focus on managing resources to achieve individual goals; making informed consumer choices; creating and maintaining a living environment that supports the well-being of individuals; living in a global environment; making decisions related to nutrition, clothing, and housing; and managing a household. Critical thinking, practical problem solving, and entrepreneurship opportunities within the area of resource management are emphasized. Teachers highlight the basic skills of math, science, and communications when appropriate in the content.

Schools offering course: All

VIRGINIA TEACHERS FOR TOMORROW (9062)

Grade: 12 with application

Grade: 11 on limited basis with application

Prerequisite: 3.0 GPA and Application

Credit: 1

This 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 participate in an internship outside the Virginia Teachers for Tomorrow classroom. The internship may involve the pre-school level through Grade 12.

Schools offering course: 2, 3, 5, 6, 8

VIRGINIA TEACHERS FOR TOMORROW INTERNSHIP (907200)

Grade: 12

Credit: 1

Students will match their interests and aptitudes with occupational information in the field of education, investigate a variety of pathways to career success, and reinforce the skills and knowledge needed for employment as an educator.

Schools offering course: 2, 3, 5, 6, 8

Virginia Teachers for Tomorrow Internship may be combined with Virginia Teachers for Tomorrow for a program completion

EARLY CHILDHOOD EDUCATION I (8285)

Grade: 10-12

Prerequisite: Application and Interview Required

Credits: 2

Students prepare to be primary providers of home-, family-, or institution-based child care services by focusing on the planning, organizing, and conducting of meaningful play and learning activities; child monitoring and supervision; record-keeping; and referral procedures. Critical thinking, practical problem solving and entrepreneurship opportunities within the field of early childhood education are emphasized. Practical experiences under the supervision of the instructor are required. Students also prepare for continuing education leading to careers in early childhood fields.

Schools offering course: 2, 3, 5, 6, 7, 10

EARLY CHILDHOOD EDUCATION II (8286)

Grade: 11-12

Prerequisite: Early Childhood Education I

Credits: 2

Students focus on occupational skills needed by personnel employed in early childhood-related fields, such as education, medical/health care, social services, counseling, psychology, and entrepreneurship. Work-based experiences under the supervision of the instructor are required. Critical thinking, practical problem solving, and entrepreneurship opportunities within the field of early childhood education are emphasized.

Schools offering course: 2, 5, 6, 7, 10

CHILD LIFE AND LITERATURE (907220)

Grades: 10-12

Prerequisite: A "C" average in English

Credit: 1

Child Life and Literature is designed for students who wish to pursue careers dealing with children (teaching, parenting, pediatrics, children's librarian, etc.) or students who have an interest in learning more about children and their literature. Child Life and Literature integrates the development of the child and the various genre of literature, teaches group dynamics, coping skills, and real-life skills. Activities such as puppet shows, dramatizations, skits, marionette shows, video evaluations and comparisons, read-alongs, and sing-alongs will be an integral part of this course. The class will require 10 hours of hands-on experience with young children. The class is taught in a team approach with an English teacher. Teachers highlight the basic skills of math, science, and communication when appropriate in the content.

School offering course: 2



PARENTING (823201)

Grades: 9-12

Prerequisite: None

Credit: 1

Students enrolled in Parenting focus on assessing the impact of the parenting role in society; taking responsibility for individual growth within the parent-child

relationship; preparing for a healthy emotional and physical beginning for parent and child; meeting developmental needs of children and adolescents; building positive parent-child relationships; using positive guidance and discipline to promote self-discipline, self-respect, and socially responsible behavior; obtaining parenting information, support, and assistance; and planning ways that families and society can share in nurturing children and adolescents. Critical thinking, practical problem solving, and entrepreneurship opportunities within the area of parenting responsibilities and education are emphasized. Teachers highlight the basic skills of math, science, and communication when appropriate in the content.

Schools offering course: All

IGCSE CHILD DEVELOPMENT (823240)

Grades: 10-12

Prerequisite: Teacher recommendation

Credit: 1

IGCSE Child Development will teach students how to collect, analyze and interpret data to develop an understanding of the relationships between accepted norms of development and actual observed behavior of children. Students will develop an awareness of the roles of families in various cultures and an appreciation of the complexity of influences on the developing child. Course content includes physical development and health maintenance, social relationships and development, emotional development, cognitive development, and community provisions for children and child development. Successful completion of this course will result in an IGCSE or ICE certificate.

School offering course: 1

NUTRITION AND WELLNESS (8228, 8229)

Grades: 9-12

Prerequisite: None

Credit: (8228 = 1/2, 8229 = 1)

Students enrolled in Nutrition and Wellness focus on making choices that promote wellness and good health, analyzing relationships between psychological and social needs and food choice; 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. Critical thinking, practical problem solving, and entrepreneurship opportunities within the area of nutrition and wellness are emphasized. Teachers highlight the basic skills of math, science, and communication when appropriate in the content.

Schools offering course: 1, 2, 3, 4, 5, 6, 7, 8, 10

LIFE PLANNING (8226, 8227)

Grades: 9-12

Credit: (8226 = 1/2, 8227 = 1)

Students enrolled in Life Planning focus on developing a life management plan; caring for self and others to ensure wellness; building and maintaining constructive relationships; building and maintaining strong, functional families; developing lifelong career planning; coordinating personal and career responsibilities; and establishing a plan for using resources. Critical thinking,

practical problem solving, and entrepreneurship opportunities within the area of personal, family, and career planning are emphasized. Teachers highlight the basic skills of mathematics, science, and communication with appropriate in content.

Schools offering course: 1, 2, 3, 4, 5, 6, 7, 9

INDIVIDUAL DEVELOPMENT (8210)

Grades: 9-12

Prerequisite: None

Credit: 1

Students enrolled in Individual Development focus on encouraging personal potential of self and others throughout the life-span; enhancing positive views of self and others; managing stressful situations; formulating a plan to achieve career goals; forming healthy, caring relationships with family members and peers; managing conflict; choosing responsible ways to express oneself; and evaluating the importance of responsible parenting to individuals, families, and society. Critical thinking, practical problem-solving, and entrepreneurship opportunities within the area of individual mental, emotional, and physical health are emphasized. Teachers highlight the basic skills of math, science, and communication when appropriate in the content.

Schools offering course: 2, 3, 5, 6, 10

GRADS (8278)

Grades: 9-12

Prerequisite: Application and Interview Required

Credit: 1 credit

This course has been designed to meet the needs of teen parents. Students enrolled in the Graduation, Reality, and Dual-role Skills Program (GRADS) concentrate on developing self-esteem; using effective communication skills; maintaining positive relationships; promoting wellness, prenatal, and postnatal care; evaluating the cost of parenthood; adjusting to parenthood; understanding child development; providing child care; managing family relationships; exploring careers; applying employability skills; managing economic resources and expenditures; and balancing work and family. Teachers highlight the basic skills of math and science when appropriate in the content. Completer sequences and certifications do not apply.

Schools offering course: 2, 5

GRADS WORK STUDY (821301)

Grades: 9-12

Prerequisite: Application and Interview Required

Credit: 1 credit

This is an on-site internship course designed to meet the needs of students interested in careers working with infants and toddlers. The thirteen Child Development Associates competencies are explored throughout the course. Hands-on experience operating the infant toddler center is an integral part of this class. Teachers highlight the basic skills of math, science, and communication when appropriate in the content. Twenty hours of off-site work, family or volunteer activities is required. Completer sequences and certifications do not apply.

Schools offering course: 2, 5

FAMILY RELATIONSHIPS (8223, 8225)

Grades: 9-12

Prerequisite: None

Credit: (8223 = 1/2, 8225 = 1)

Students enrolled in Family Relations focus on analyzing the significance of the family, nurturing human development in the family throughout the life span, analyzing factors that build and maintain healthy family relationships, developing communication patterns that enhance family relationships, dealing

effectively with family stressors and conflicts, managing work and family roles and responsibilities, and analyzing social forces that influence families across the life span. Critical thinking, practical problem solving, and entrepreneurship opportunities within the area of family responsibilities and services are emphasized. Teachers highlight the basic skills of mathematics, science, and communication when appropriate in content.

Schools offering course: 2, 3, 7

INTRODUCTION TO FASHION DESIGN AND MARKETING (824860)

Grades: 11-12

Prerequisite: None

Credit: 1

The fashion design and merchandising competencies focus on identifying and exploring the individual careers within the fashion 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;



exploration of careers in color, design, and entrepreneurial opportunities in related areas; and the skills and characteristics necessary for success in careers in the textile, design, apparel production, and fashion merchandising industries.

School offering course: 6, 10

COSMETOLOGY I (8527)

Grade: 11

Prerequisite: None

Credits: 3

Prepares for Licensure Exam

ADMISSION BY APPLICATION ONLY

Cosmetology I is the first year of a two-year program for the study of hair, skin, and nails and their related care. Students study and prepare in a clinical lab setting, using mannequins and live models for manipulative skill practice. The program emphasizes safety and sanitation, communication, and management skills. Related areas of study include psychology, ethics, and presentation of a professional image. The course is continued in Cosmetology II.

Schools offering course: Available to ALL high school students through an application process. Check with school counselor.

COSMETOLOGY II (8528)

Grade: 12

Prerequisite: Cosmetology I

Credits: 3

Licensure exam required

Cosmetology II is the second year of a two-year program that prepares students to sit for the Virginia State Board of Cosmetology licensing exam. Students will begin to shape hair, utilize color procedures, do more complex facial and skin treatments, analyze diseases and disorders, and provide permanent waving. Salon management and more detailed understanding of Virginia laws and how they pertain to the cosmetology profession are a standard part of the program. Students completing the sequential program are expected to take the State Board examination that is required for employment in the cosmetology profession.

Schools offering course: Available to all students completing Cosmetology I

ENGLISH

GRADUATION REQUIREMENTS IN ENGLISH:

Advanced Studies Diploma: student must earn 4 credits, 2 of which are verified by passing the English Reading and English Writing SOL Test.

Standard Diploma: student must earn 4 credits, 2 of which are verified by passing an SOL Test

Modified Standard Diploma: student must earn 4 credits and must pass SOL Tests in math and English/Reading or achieve scores on these or on other tests as approved by the Board of Education.

Any student completing English 11 in PWC must pass both the English 11 course and the English 11 Research Paper Requirement.

Note courses in the chart below that qualify to meet these standards (course descriptions follow this page.)

- Courses indicating a “**V**” have an end-of-course state SOL test and offer the **possibility** of a verified unit of credit.
- Courses indicating a “**W**” offer the **possibility** of weighted credit if the student successfully completes the course and fulfills all required external assessments.

Required Courses	Meets Diploma Requirement For:	Approved Substitute(s)
English 9	Advanced Studies Diploma Standard Diploma Modified Standard Diploma **	<ul style="list-style-type: none"> • Pre-Advanced Placement English 9 • IGCSE English 9 • IB Middle Years Program English 9
English 10	Advanced Studies Diploma Standard Diploma Modified Standard Diploma **	<ul style="list-style-type: none"> • Pre-Advanced Placement English 10 • IGCSE English 10 • IB Middle Years Program English 10
English 11 <i>(can provide 2 verified credits, one for reading and one for writing)</i>	Advanced Studies Diploma Standard Diploma Modified Standard Diploma **	<ul style="list-style-type: none"> • Advanced Placement English Language and Composition – V, W • AICE English Language and Composition – V, W • IB English I – V, W
English 12	Advanced Studies Diploma Standard Diploma Modified Standard Diploma **	<ul style="list-style-type: none"> • Advanced Placement Literature and Composition – W • AICE English Literature – W • IB English II – W

** Eligibility and participation in the Modified Standard Diploma program shall be determined by the student’s Individual Education Program (IEP) team and the student, where appropriate, at any point after the student’s 8th grade year. A student who has chosen the Modified Standard Diploma shall be allowed to pursue the Standard or Advanced Studies Diploma at any time throughout his/her high school career.

ELECTIVES THAT MAY NOT BE USED TO MEET THE GRADUATION REQUIREMENTS.

- | | | |
|---|--|---|
| <ul style="list-style-type: none"> • Creative Writing I, II • Film Studies • Journalism I, II, III • Photo Journalism/Yearbook • An Introduction to Speech Communication • Enrichment in Speech Communication • English 9 Seminar • Reading Improvement | <ul style="list-style-type: none"> • Creative Writing Exploration • Short Story I, II • Nonfiction I, II • Poetry I, II • Global Connections in Multicultural Literature • Script I, IIA, IIB • Novel | <ul style="list-style-type: none"> • Creative Writing Publication • Creative Writing Seminar • Creative Writing Independent Study • Interdisciplinary Literary Arts • IBMYP Introduction to Speech Communication |
|---|--|---|

REQUIRED COURSE SEQUENCE FOR ENGLISH

ENGLISH 9 (113020)

Grade: 9

Prerequisite: Successful completion of Grade 8

Credit: 1

Students analyze the elements of short story, drama, poetry, autobiography, biography, mythology, epic, and nonfiction, and develop an independent reading program. They compose narrative, literary, expository, and technical writings. Each unit of literary study involves increasingly complex texts, with an emphasis placed on the development of written and oral communication. Grammar instruction includes sentence formation, usage, and mechanics; and students develop vocabulary skills through a variety of methods. The skills of using the information management process are used to create a research paper.

Schools offering course: All

ENGLISH 10 (114020)

Grade: 10

Prerequisite: Successful completion of English 9

Credit: 1

Students analyze novels, poetry, essays, editorials, science fiction, and non-fiction from a variety of eras and cultures. Students also develop vocabulary and oral communication skills, use the information management process, and study grammar. Grammar instruction emphasizes sentence formation, usage, and mechanics. Compositions in the narrative, expository, analytical, technical, and persuasive modes reinforce skills from the grammar and literature units. Students develop reading strategies in increasingly complex texts as well as review and expand research skills through completion of a documented paper.

Students develop and independent reading program.

Schools offering course: All

ENGLISH 11 (115020)

Grade: 11

Prerequisite: Successful completion of English 10

Credit: 1

Students critically analyze and evaluate relationships among American literature, history, and culture. Analysis of literary themes, movements and genres, vocabulary development, application of the information management process, the study of grammar, and oral communication skills are incorporated into this course. Narrative, analytical, expository, technical, and persuasive compositions reinforce grammar and literature skills. Students develop an independent reading program. Students refine research skills by completing a documented paper addressing a question, problem or issue. **Successful completion of the eleventh grade research paper is a requirement for successful completion of this course.**

Schools offering course: All

ENGLISH 12 (116020)

Grade: 12

Prerequisite: Successful completion of English 11; students may enroll if they have successfully completed the English 11 course work but have not passed the research paper

Credit: 1

Students critically analyze and evaluate relationships among British literature, history and other cultures. Analysis of literary themes, movements and genres, vocabulary development, application of the information management process, the study of grammar, and oral communication skills are incorporated into this course. Through writing narrative, analytical, expository, technical, and persuasive compositions, students reinforce skills studied in the grammar and literature units. Students develop an independent reading program. Students practice independent research skills through the completion of documented papers.

Schools offering course: All

ADVANCED PLACEMENT COURSE SEQUENCE

PRE-AP ENGLISH 9 (113001)

Grade: 9

Prerequisite: Successful completion of Grade 8 and interest in advanced study

Credit: 1

Students meet all objectives of English 9 in this accelerated program by developing critical thinking skills through extensive reading and writing in a variety of genres and forms. Emphasis is placed on developing an awareness of the connection between life and literature. Grammar is studied in conjunction with both reading and writing; vocabulary skills are developed through an intense study of Greek and Latin roots; orals skills are practiced through speeches, oral presentations, and group work; skills are expanded. **This course is an integral component of the multidisciplinary program of studies established for the Biotechnology Center (BIOTECH), Center for Environmental and Natural Sciences (CENS), Center for the Fine and Performing Arts (CFPA), Center for International Studies and Languages (CISL), and Centers for Information Technology (iT).** For additional information, refer to the description of these programs in the specialty program section.

Schools offering course: 3, 6, 7, 8, 9, 10

PRE-AP ENGLISH 10 (114001)

Grade: 10

Prerequisite: Successful completion of Pre-AP 9 or a grade of B or better in English 9, student interest in advanced study, and teacher recommendation.

Credit: 1

Students participate in an accelerated program while meeting all the objectives of grade 10. They critically analyze a wide variety of genres and forms through extensive readings and writings which are focused on developing interpretive skills while increasing complexity and sophistication. Grammar and vocabulary studies support the reading and writing levels. Oral and research skills are expanded to develop articulation and effectiveness. **This course is an integral component of the multidisciplinary program of studies established for the**

Biotechnology Center (BIOTECH), Center for Environmental and Natural Sciences (CENS), Center for the Fine and Performing Arts (CFPA), Center for International Studies and Languages (CISL), and Centers for Information Technology (iT). For additional information, refer to the description of these programs in the specialty program section.

Schools offering course: 3, 6, 7, 8, 9, 10

ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION (119620)

Grade: 11

Prerequisite: Successful completion of Pre-AP English 10 or a grade of B or better in English 10, student interest in advanced study, and teacher recommendation.

Credit: 1

This course in advanced language, literature, and composition is designed for the student who needs and desires the challenge of an advanced English class. Students are expected to master all English 11 performance indicators of the curriculum guide and complete a study of American literature. Critical, analytical, and creative writings concerning fiction and poetry are required. In May, the students take an exam to qualify for advanced standing in college and/or college credit. **Successful completion of the eleventh grade research paper is a requirement for successful completion of this course.**

Schools offering course: 3, 4, 6, 7, 8, 9, 10

ADVANCED PLACEMENT LITERATURE AND COMPOSITION (119520)

Grade: 12

Prerequisite: Successful completion of AP English 11 or English 11 with grade of B or better, student interest in advanced study, and teacher recommendation.

Credit: 1

Advanced Placement English Literature and Composition is a senior-level course designed for the student who needs and desires the challenge of an advanced English class. Students are expected to master all English 12 performance indicators of the curriculum guide and complete a study of world literature. Critical, analytical, and creative writing will be required. Specific problems that occur in students' work will generate the study of grammar and advanced composition skills. In May, the students take an exam to qualify for advanced standing in college and/or college credit.

Schools offering course: 3, 4, 5, 6, 7, 8, 9, 10

CAMBRIDGE PROGRAM COURSE SEQUENCE

IGCSE ENGLISH 9 (113040)

Grade: 9

Prerequisite: Successful completion of Grade 8 with a grade of B or better and interest in advanced study

Credit: 1

Students study a variety of literature to develop an awareness of the relationship between life and literary experience while completing all objectives of grade 9. Writing frequently for varied purposes, students develop critical thinking skills in analyzing and evaluating. Modified

Oxford debates help develop oral skills. Vocabulary is increased through a study of Greek and Latin roots. Several independent research projects, large and small group participation, required outside reading, and a study of persuasion in the media are all part of this course.

Schools offering course: 1, 4

IGCSE ENGLISH 10 (114040)

Grade: 10

Prerequisite: Successful completion of IGCSE English 9 or English 9 with a grade of B or better, student interest in advanced study, and teacher recommendation.

Credit: 1

Students analyze a variety of genres to understand the structural elements and the relationship of those elements to the meaning of the work and its literary tradition. Through frequent personal and literary writing, students study the principal essay forms of narrative, descriptive, expository, persuasive, and documented essays. Students increase vocabulary, evaluate critically, write and speak persuasively and responsibly as well as present dramatic material effectively. Assessment will include an external student examination.

Schools offering course: 1, 4

AICE ENGLISH LANGUAGE AND COMPOSITION (119640)

Grade: 11

Prerequisite: Successful completion of IGCSE English 10 or English 10 with a grade of B or better, student interest in advanced study, and teacher recommendation.

Credit: 1

ACIE is an advanced language and composition course which meets all the objectives for English 11 and employs an international curriculum. Focusing on reading and writing from a wide variety of genres, styles, and contexts, students respond in critical and detailed analysis through directed writing, oral presentations, and group discussion. Students meet the requirements for an Advanced International Certificate of Education Diploma and an Advanced Placement English Language and Composition with possible college credit through successful completion of external assessments. **Successful completion of the eleventh grade research paper is a requirement for successful completion of this course.**

Schools offering course: 1, 4

AICE ENGLISH LITERATURE (119540)

Grade: 12

Prerequisite: Successful completion of AICE English Language and Composition or English 11 with a grade of B or better, student interest in advanced study, and teacher recommendation.

Credit: 1

Students in AICE English Literature, while meeting all the objectives for English 12, follow an accelerated, international curriculum. They read a wide variety of texts from a broad range of cultures and literary periods. Students write both personal and formal literary responses to literature, practicing their skills of logical, critical analysis. Oral skills are honed in group and individual presentations and discussions. Students meet the requirements of an Advanced International Certificate of Education Diploma and Advanced Placement English Literature and Composition credit with possible college credit through successful completion of external assessments.

Schools offering course: 1, 4

AICE ENGLISH LITERATURE A LEVEL (119545)

Grade: 12

Prerequisite: Successful completion of AICE English Language and Composition with a B or better, student interested in advanced study, and teacher recommendations.

Credit: 1

Students in AICE English Literature, while meeting all the objectives for English 12, follow an accelerated, international curriculum. They study a range of texts in the three main forms of literature: prose, poetry, and drama. A variety of texts are offered from a wide range of different periods and cultures. Students enhance their reading skills and expand their ability to analyze text. Diverse reading material assists students in their comprehension of the work of various authors and expedites their ability to speak coherently about all forms of literature. Students meet the requirements of an Advanced International Certificate of Education (AICE) with possible college credit through successful completion of external assessments.

Schools offering course: 1, 4

INTERNATIONAL BACCALAUREATE COURSE SEQUENCE

IB MIDDLE YEARS PROGRAM ENGLISH 9 (113051)

Grade: 9

Prerequisite: Successful completion of Grade 8 and interest in advanced study.

Credit: 1

Middle Years Program English 9 prepares students planning to enroll in the International Baccalaureate Sequence of English classes. Students will complete all objectives of English 9 accelerated program. Students expand speaking skills by creating presentations from group and individual research. In class studies, emphasis is placed on the reading and analysis of complex texts, and independent reading is expected. Students develop both grammar and vocabulary skills in conjunction with frequent writing in all expository modes. Development of critical analysis and support in thinking and writing are emphasized.

Schools offering course: 2, 5

IB MIDDLE YEARS PROGRAM ENGLISH 10 (114051)

Grade: 10

Prerequisite: Successful completion of IB MYP English 9 or a grade of B or better in English 9, student interest in advanced study, and teacher recommendation.

Credit: 1

Middle Years Program English 10 prepares students planning to enroll in International Baccalaureate English courses in Grades 11 and 12. Students will complete all English 10 objectives through an accelerated program using challenging in-depth readings. Grammar and vocabulary studies are structured to support reading and writing levels. Oral skills are honed in group and individual presentations and discussions. Formal writings are evaluated for close analysis, elaboration of details, and fluid articulation of ideas.

Schools offering course: 2, 5

IB ENGLISH I (115051)

Grade: 11

Prerequisite: Successful completion of IB MYP English 10 or a grade of B or better in English 10, student interest in advanced study, and teacher recommendation.

Credit: 1

While meeting all the objectives for English 11, students follow an accelerated, internationally based curriculum. IB English I is part one of a two year program in which students develop a knowledge of the literature and culture of both the United States and other countries. Reading from a variety of genres and texts, students develop and practice detailed and critical analysis in oral and written forms. Students produce two essays that are externally assessed by the International Baccalaureate Organization. **Successful completion of the eleventh grade research paper is a requirement for successful completion of this course.**

Schools offering course: 2, 5

IB ENGLISH II (116051) – Higher Level

Grade: 12

Prerequisite: Successful completion of IB English I with a grade of “C” or better.

Credit: 1

The students in IB English II, while meeting all the objectives for English 12, complete the second year of the accelerated internationally based curriculum begun in IB English I. Students refine their skills in structuring ideas and argumentation in a logical, persuasive, and sustained manner in both oral and written work. Students engage in independent literary criticism of major works of literature through detailed study, supporting their ideas with precise and relevant examples. Successful completion of an internally assessed oral exam, two externally assessed essays, and two externally assessed written exams meet the requirements for a Higher Level International Baccalaureate Diploma or Certificate and may qualify for advanced standing in college and/or college credit.

Schools offering course: 2, 5

IB ENGLISH II (116151) – Standard Level

Grade: 12

Prerequisite: Successful completion of IB English I or a grade of B or better in English 11, student interest in advanced study, and teacher recommendation.

Credit: 1

While completing all the requirements of English 12, IB English II, Standard Level, students work at a more accelerated pace learning to approach literature in an independent manner, expressing their ideas with precision, fluency, and clarity. Students develop an ability to comment on major works of literature and structure their writing in a logical and sustained manner. Successful completion of one externally assessed paper and an exam, as well as an internally assessed oral exam, meets the requirement for a International Baccalaureate Diploma or Certificate and may qualify for advanced standing in college and/or college credit.

Schools offering course: 2, 5

IBMYP INTRODUCTION TO SPEECH COMMUNICATION (130050)

Grade 10-12

Prerequisite: None

Credit: 1

The IBMYP Introduction to Speech Communication is a sequential program designed to continue the development of each student as a speaker.

Students develop their speaking skills, as well as learn the dynamics of speech and the categories of speech (forensics) competition. Students participate in the creative processes of oral interpretation.

School offering course: 2, 5

ENGLISH ELECTIVE COURSES

CREATIVE WRITING I (117120)

Grades: 11-12 and 10 with Permission

Prerequisite: Successful mastery of Grade 9 and Grade 10 Language Arts objectives

Credit: 1

Students write and revise extensively to develop voice and style. Students select topics in virtually all writing assignments. They experiment with a variety of subjects, genres, techniques, purposes, and audiences. They produce polished writing in fiction, non-fiction, poetry and drama. Students will submit their work for publication in the school's literary magazine.

Schools offering course: All

CREATIVE WRITING II (117720)

Grades: 11-12

Prerequisite: Successful completion of Creative Writing I

Credit: 1

Students who have completed the first level of Creative Writing refine their skills in writing and revising to further develop their style. They examine the composing processes of professional writers and participate in the process of producing a literary magazine.

Schools offering course: 1, 2, 3, 4, 5, 6, 7, 8, 9

FILM STUDIES (1446)

Grades: 9-12

Prerequisite: None

Credit: 1

This yearlong course seeks to encourage an enjoyment and deeper understanding of different types of film (narrative cinema, documentary, and abstract film) through a critical understanding of how films work artistically, technically, and socially. Through film theory and film production, students will apply a range of critical approaches as well as receiving instruction in video and film production.

Schools offering course: 3

JOURNALISM I (120020)

Grades: 9-12

Prerequisite: Successful completion of previous English courses and teacher recommendation

Credit: 1

Students develop basic skills in journalism. They study and write the news, feature, sports, editorial, and other forms of journalistic articles. They study interviewing, various types of research, legal rights and responsibilities, page design, photography, desktop publishing and advertising. They produce articles for publication in the mass media.

Schools offering course: 2, 3, 4, 5, 6, 7, 8, 9, 10

JOURNALISM II (121020)

Grades: 10-12

Prerequisite: Successful completion of Journalism I and journalism teacher recommendation

Credit: 1

Students produce a news publication. Working cooperatively, students apply skills and techniques learned in Journalism I.

Schools offering course: 2, 3, 4, 5, 6, 7, 8, 9, 10

JOURNALISM III (121120)

Grade: 11-12

Prerequisite: Journalism II

Credit: 1

Students learn editorial leadership, develop a sense of professionalism, understand the role of the newspaper in our society, and develop more fully as productive members of the publication staff. Students serve as leaders, mentors, and peer tutors. They may also represent the newspaper staff in the community by writing for the professional press in stringer or internship positions, and/or serve as tutors in neighboring middle schools.

Schools offering course: 2, 3, 4, 6, 7, 8, 9, 10

PHOTO JOURNALISM/YEARBOOK (121520)

Grades: 10-12

Prerequisite: Tenth grade or higher; yearbook staff assignment, Journalism I.

Credit: 1

Students learn various aspects of publication while assisting in the production of the high school yearbook. Students participate in each step of production from planning the ladder diagram to distribution of the completed publication. This course may be taken more than once for credit.

Schools offering course: All

AN INTRODUCTION TO SPEECH COMMUNICATION (130020)

Grades: 9-12

Prerequisite: None

Credit: 1

Students develop their speaking skills, as well as learn the dynamics of speech and the categories of speech (forensics) competition. Students participate in the creative processes of oral interpretation.

Schools offering course: All

ENRICHMENT IN SPEECH COMMUNICATION (130220)

Grades: 10-12

Prerequisite: An Introduction to Speech Communication

Credit: 1

Students reinforce, refine and expand the speaking skills learned in An Introduction to Speech Communication. They further develop their abilities to compete in intra-scholastic contests in Forensics, Student Congress, Lincoln Douglas and Policy Debate.

Schools offering course: 2, 3, 4, 5, 6, 7, 8, 10

GLOBAL CONNECTIONS IN MULTICULTURAL LITERATURE (116520)

Grades: 11-12

Prerequisite: Teacher recommendation

Credit: 1

Global Connections in Multicultural Literature is a junior/senior enrichment course designed to immerse students in the lifestyles, cultures, traditions, and experiences of various ethnic groups within American culture through the study of representative literature, field trips, speakers, and projects. Students broaden their understanding of multicultural literature by drawing upon personal experiences, discussions, and presentations as they expand their understanding of America's diverse and changing society.

Schools offering course: 7, 8, 9

PSAT/SAT VERBAL-MATH PREPARATION CLASS (012920)

Grades: 10-12

Prerequisite: English 9, Algebra 1 and Geometry

Credit: 1/2

Students study and practice the skills necessary for improving scores on the PSAT/SAT tests.

School offering course: 4

READING IMPROVEMENT (118620)

Grades: 9-12

Prerequisite: Students reading two to four years below grade level

Credit: 1

Students develop and reinforce basic reading and study skills. They learn techniques applicable to content reading and they develop word analysis and comprehension skills. This course may be taken more than once for credit.

Schools offering course: All

ENGLISH 9 SEMINAR (151510)

Grade: 8

Prerequisite: Assigned based on SOL Language Arts scores

Credit:

Students who did not pass the 8th grade language arts SOLs or are two or more years below grade level in reading are required to participate in this remedial program which does not replace English 9. Students work intensely with reading comprehension strategies and the writing domains in a small class setting. An opportunity to retake the 8th grade SOLs is offered in the spring.

Schools offering course: All

CREATIVE WRITING ELECTIVES FOR FINE AND PERFORMING ARTS CENTER

Genre Focus is required for juniors in Creative Writing at the Center for the Fine & Performing Arts. Students must select two of the following genre: short story, nonfiction, poetry, dramatic literature, and film. Elective: Genre Focus is an elective for all Concentration Areas of CFPA or other WSHS students with special permission.

CREATIVE WRITING EXPLORATION (117160)

Grade: 9

Prerequisite: None

Credit: 1

Students examine and employ the writing process, completing writing exercises in a variety of genres. Students explore techniques to generate writing, develop fluidity in writing, gain appreciation for the community of writers, and learn to collaborate with other writers. Students keep a writer's journal and begin to develop portfolios.

School offering course: 6

SHORT STORY I/ GENRE FOCUS: SHORT STORY I (151561)

Grades: 11-12

Prerequisite: Successful completion of Creative Writing I

Credit: 1/2

Students review elements of story, enhance characterization and dialogue, experiment with point of view and voice, and locate markets for their writing. They explore composing processes of professional writers and extend their study of contemporary fiction writers. Students serve as a community resource for creative writing with younger students. Students work with magazine production and develop a fiction portfolio.

School offering course: 6

NONFICTION I/ GENRE FOCUS: NONFICTION I (151562)

Grades: 11-12

Prerequisite: Successful completion of Creative Writing I

Credit: 1/2

Students experiment with different types of creative nonfiction including essays, narratives, feature articles, reviews, editorials, memoirs, nature and travel writing, and family stories. They explore the composing processes of professional writers and extend their study of contemporary authors in creative nonfiction. Students locate markets for their writing and submit at least one work per genre to a professional publication. Students serve as a community resource for creative writing with younger students and will work with magazine production.

School offering course: 6

POETRY I/ GENRE FOCUS: POETRY I (151563)**Grades: 11-12****Prerequisite: Successful completion of Creative Writing I****Credit: 1/2**

Students experiment with traditional and free verse poetry. They enhance use of sensory imagery and figurative language, and explore the composing processes of professional writers and extend their study of contemporary poets. Students locate markets for their writing and submit at least one work per genre to a professional publication. They also serve as a community resource for creative writing with younger students. Students develop a poetry portfolio, and students work with magazine production.

School offering course: 6**SCRIPT I/ GENRE FOCUS: SCRIPT I (151564)****Grades: 11-12****Prerequisite: Successful completion of Creative Writing I****Credit: 1/2**

Students write scripts to enhance their ability to write realistic dialogue and move action through dialogue. They explore the composing processes of professional writers and view classic and contemporary plays, films, and broadcasts. Students locate markets for their writing and submit at least one work to a professional publication. They also develop a portfolio of scripts and serve as a community resource for younger creative writing students. Students work with magazine production and perform student-written scripts.

School offering course: 6

Advanced Genre Focus is an elective with first priority given to CFPA creative writing students who have completed Creative Writing I and specific Genre Focus Courses I. Students from all Concentration Areas of CFPA or other WSHS students may elect the courses with special permission if they have completed the prerequisite genre study.

SHORT STORY II/ ADVANCED GENRE FOCUS:**SHORT STORY II (151661)****Grades: 11-12****Prerequisite: Successful completion of Short Story I/****Genre Focus: Short Story I****Credit: 1/2**

Students refine the skills they acquired in Genre Focus: Short Story I by further reviewing elements of story, enhancing characterization and dialogue, and developing skillful control of point of view and voice. Students intensively study the composing processes and works of a single professional writer in the given genre. They locate markets for their writing and submit at least one work to a professional publication as they continue to expand their fiction portfolio.

School offering course: 6**NONFICTION II/ADVANCED GENRE FOCUS:****NONFICTION II (151662)****Grades: 11-12****Prerequisite: Successful completion of Nonfiction I/****Genre Focus: Nonfiction I****Credit: 1/2**

Students experiment with different types of creative nonfiction including essays, narratives, feature articles, reviews, editorials, memoirs, nature and travel writing, and family stories. They explore the composing processes of professional writers and extend their study of contemporary authors in creative nonfiction. Students also locate markets for their writing and submit at least one work per genre to a professional publication, as well as expand their nonfiction portfolio.

School offering course: 6**POETRY II/ADVANCED GENRE FOCUS: POETRY II (151663)****Grades: 11-12****Prerequisite: Successful completion of Poetry I/ Genre****Focus: Poetry I****Credit:**

Students develop traditional and free verse poetry. They continue to enhance their use of sensory imagery and figurative language as they conduct an intensive study of the composing processes and works of a single professional writer in the given genre. They will locate markets for their writing and submit at least one work per quarter to a professional publication as they expand a poetry portfolio and work with magazine production.

School offering course: 6**SCRIPT IIA/ ADVANCED GENRE FOCUS: SCRIPTWRITING FOR THE STAGE (151664)****Grades: 11-12****Prerequisite: Successful completion of Creative Writing I and Script I/ Genre Focus: Script I****Credit: 1/2**

Students write for live theater and further review dramatic structure, effective use of setting and the stage set, effective dialogue, moving action through dialogue, and stage direction. Students intensively study the composing process and works of a single professional writer. Students locate markets for their writing and submit at least one work to a professional publication as they continue to develop a script portfolio.

School offering course: 6**SCRIPT IIB/ ADVANCED GENRE FOCUS: SCRIPTWRITING FOR THE SCREEN (151665)****Grades: 11-12****Prerequisite: Successful completion of Creative Writing I and Script I/ Genre Focus: Script I****Credit: 1/2**

Students write for the screen and refine skills by further reviewing dramatic structure, use of setting and the stage set, dialogue, moving action through dialogue, and stage direction. Students intensively study the composing process and works of a single professional writer in the given genre as they expand a script portfolio and locate markets for their writing, submitting at least one work to a professional publication.

School offering course: 6

**NOVEL/ ADVANCED GENRE FOCUS: NOVEL
(151666)**

Grades: 11-12

Prerequisite: Successful completion of Creative Writing I and Short Story I/ Genre Focus: Short Story I

Credit: 1/2

Students expand skills acquired in Short Story I by developing more complex characterization and plot structures. They intensively study the composing process and works of a single professional writer in the given genre, and locate markets for their writing, submitting at least one work to a professional publication. Students develop a novel and work with aspects of publication.

School offering course: 6

CREATIVE WRITING PUBLICATIONS (117761)

Grades: 11-12

Prerequisite: Creative Writing I

Credit: 1/2

Students help to produce literary magazines, anthologies, journals, and community resources. Desktop publishing and graphic arts, as well as the marketing, managing, and business aspects of publications will be addressed. Priority is given to CFPA creative writing students and literary/ arts magazine staff members. Students from all Concentration Areas of CFPA or other WSHS students may elect this course with special permission. The course may be repeated for credit.

School offering course: 6

CREATIVE WRITING SEMINAR (151566)

Grades: 11-12

Prerequisite: Creative Writing I

Credit: 1/2

Students focus on the unique characteristics of specialized genre in literature, thus providing them an opportunity to workshop with other students who have similar writing interests and preferences. The seminar requires students to read exemplary models from each genre specialization.

School offering course: 6

CREATIVE WRITING INDEPENDENT STUDY

(151567)

Grade: 12

Credit: 1/2

This course is determined on a case-by-case basis dependent on student interest and ability.

School offering course: 6

INTERDISCIPLINARY LITERARY ARTS (151568)

Grades: 11-12

Prerequisite: Creative Writing I

Credit: 1/2

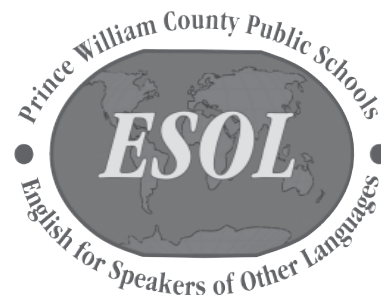
Students integrate the arts from more than one CFPA Concentration Area in an individual or group project. Individual projects might include an illustrated children's book, comic book, or performances of student-written monologues or song lyrics. Group projects might include collaborative writings or specialized publications or performances, plays, scripts, musical theater, or televised dance performances.

School offering course: 6

ESOL

ESL COURSES CAN FULFILL THE FOLLOWING GRADUATION REQUIREMENTS:

- **English:** *One of the four required English credits may be earned with ESL III or IV, but all ESOL students must pass English 11, English 11 SOLs, and the English 11 Research Paper.*
 - ✓ *The usual sequence for English is ESL III or IV, Eng 9, Eng 10, and Eng 11. Students may take ESL and Eng courses concurrently with ESOL teacher recommendation. Students may take ESL III simultaneously with Eng 9 and ESL IV simultaneously with Eng 10 or Eng 11. Proficiency Level 2 students may be considered for placement in Sheltered Eng 9 on a case-by-case basis.*
- **Elective Credit**
- **Sequential Electives** – *if ESL III and IV is not replacing English 12*
- **Foreign Language (World Language)** – *up to 2 credits, if not used for other credit*



ESL COURSES

ESL I (5710) (5711) (5712) (5713) (5714)

Grades: 9-12

Prerequisite: None

Credit: 1/2-5 (as applicable to the state recommendation)

Students become familiar with American culture and the rules, responsibilities, and opportunities of students in an American high school. They learn the basic skills of listening comprehension, speaking, reading, and writing of English needed to function in a mainstream classroom. Students study survival English vocabulary, grammar, and language patterns through an integrated study of the basic concepts of social studies, math, science, and other subject areas. ESL I is a class for ESOL Level 1 students who have little to no English; they may or may not have previous formal schooling or literacy in their home language.

Schools offering course: All through High School ESOL Centers 2, 3, 4, 5, 6, 7, 8, 9, 10

ESL II (5720) (5721) (5722) (5723)**

Grades: 9-12

Prerequisite: ESL I or ESOL Teacher Recommendation

Credit: 1/2-4 (as applicable to the state recommendation)

Students learn English with more focus on literacy skills and content-specific language and concepts that are aligned with the academic courses they are studying. Students learn English for the purpose of functioning in content classes. Students also continue to learn about American customs and culture. ESL II is a class for ESOL students at Level 2 program proficiency level.

Schools offering course: All through High School ESOL Centers 2, 3, 4, 5, 6, 7, 8, 9, 10

ESL III (5730) (5732) (5733)**

Grades: 9-12

Prerequisite: ESL II or ESOL Teacher Recommendation

Credit: 1/2-1 (as applicable to the state recommendation)

Students continue to gain more proficiency in the English skills of listening, speaking, reading, and writing with the class work being more aligned to basic requirements, with adapted materials and appropriate accommodations, to the level of work of an English 9 class. Students continue to learn about American cultural nuances and prepare for academic classes. ESL III is also used as a back-up support (Adjunct Model) of general education English courses or specific content courses. ESL III is a class for ESOL students at Level 3.

Schools offering course: All through High School ESOL Centers 2, 3, 4, 5, 6, 7, 8, 9, 10

ESL IV (5731) (5734) (5735)**

Grades: 9-12

Prerequisite: ESL III or ESOL Teacher Recommendation

Credit: 1/2-1 (as applicable to the state recommendation)

Students refine all English language skills with regular or adapted classroom materials. Emphasis is on vocabulary for specific purposes and specific content-based instruction (science, social studies, and math concepts and language) including preparation and back-up support of general education English courses of specific content courses. ESL IV is a class for ESOL students at Level 4.

Schools offering course: All through High School ESOL Centers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

ESL MATH (399920)

Grades: 9-12

Prerequisite: None

Credit: 1

This course is designed to present and reinforce elementary math skills in a condensed format using manipulatives and special materials appropriate to the level of students. Instruction will include number concepts, estimation, problem solving, operations, measurement, decimals and fractions. Target participants are level 1 or 2 students who have limited or no previous academic experience in math.

Schools offering course: 3, 4, 5, 7, 10

ESOL SHELTERED COURSES

ESL Sheltered Content Courses are sections of courses that are taught by certified content/academic teachers for ESOL students at proficiency Level 2 (with ESOL teacher recommendation), Level 3, and Level 4.

Courses are designed specifically for ESOL students who need additional strategies and accommodations and may be co-taught with an ESOL teacher and/or planned in collaboration with ESOL. Students are taught all regular SOL course objectives and receive content credit for that subject area course. Sheltered courses are very successful in helping English language learners (ELLs) meet SOL requirements. Level 4 students should not be placed automatically in all sheltered classes. ELLs should be scheduled into Sheltered courses based upon their individual needs and should be gradually mainstreamed into regular classes as quickly as possible. There is no "one size fits all" when scheduling ELLs.

Course numbers for Sheltered Classes are the same as for those of the regular academic courses but have a suffix of 79 for scheduling purposes. ESOL students need to work with their ESOL teachers and guidance counselors in their schools to know which courses have sheltered sections. These may vary from year to year and from school to school.

SHELTERED ENGLISH 9

Schools offering course: 2, 3, 4, 6, 7, 8, 10

SHELTERED ENGLISH 10

Schools offering course: 1, 2, 3, 4, 6, 7, 10

SHELTERED ENGLISH 11

Schools offering course: 2, 3, 4, 5, 7, 10

SHELTERED EARTH SCIENCE

Schools offering course: 2, 3, 4, 5, 6, 7, 9, 10

SHELTERED BIOLOGY

Schools offering course: 1, 2, 3, 4, 6, 7, 10

SHELTERED CHEMISTRY

Schools offering course: 3, 6

SHELTERED GEOLOGY

Schools offering course: 6, 7

SHELTERED WORLD HISTORY

Schools offering course: 3, 4, 6, 7, 8, 10

SHELTERED US/VA HISTORY

Schools offering course: 3, 4, 5, 6, 7, 10

SHELTERED GOVERNMENT

Schools offering course: 3, 4, 6, 7, 10

SHELTERED ALGEBRA I, PART 1

Schools offering course: 2, 3, 4, 5, 6, 8, 9, 10

SHELTERED ALGEBRA I, PART 2

Schools offering course: 2, 3, 6, 10

SHELTERED ALGEBRA I

Schools offering course: 4, 6, 7

SHELTERED GEOMETRY

Schools offering course: 4, 6

SHELTERED KEYBOARDING

Schools offering course: 2, 4, 5, 6

SHELTERED HPE II

School offering course: 2

ESOL ADJUNCT COURSES

**ESOL adjunct or back-up classes, taught by an ESOL teacher as one of the ESL II, III, or IV sections, provide reinforcement of the content of a regular or sheltered academic class. Generally adjunct courses are only recommended for ESOL students needing additional support. Emphasis is on the most difficult course-specific concepts and on helping to prepare students for SOL tests, if applicable.

ENGLISH ADJUNCT COURSES

ESOL ADJUNCT ENGLISH 9 (ESL 571001)

Schools offering course: 3, 7

ESOL ADJUNCT ENGLISH 10 (ESL 571122)

Schools offering course: 3, 7

ESOL ADJUNCT ENGLISH 11 (ESL 572022)

Schools offering course: 3, 7, 10

Grades: 9-12

Prerequisite: ESL I or ESOL Teacher Recommendation Credit: 1

ESOL students enrolled in the regular English class may be offered this class to support and reinforce all content objectives of the regular English course. Taught by the ESOL teacher, this course can count as ESL II, III, or IV.

Schools offering course: 2, 3, 4, 6, 7, 8, 9, 10

MATHEMATICS ADJUNCT COURSES

ESOL ADJUNCT ALGEBRA I, Part 1 (ESL 571021)

Schools offering course: 3, 7, 10

ESOL ADJUNCT ALGEBRA I, Part 2 (ESL 571022)

Schools offering course: 2, 3

ESOL ADJUNCT GEOMETRY (ESL 571121)

Schools offering course: 2, 3, 7

ESOL ADJUNCT ALGEBRA 1 (ESL 572021)

School offering course: 7

ESOL ADJUNCT ALGEBRA II (ESL 572121)

Schools offering course: 3, 7

Grades: 9-12

Prerequisite: ESL I or ESOL Teacher Recommendation Credit: 1

ESOL students enrolled in the regular math class listed above may be offered this class to support and reinforce all content objectives of the regular math course. Taught by the ESOL teacher, this course can count as ESL II, III, or IV.

Schools offering course: 2, 3, 4, 6, 7, 8, 9, 10

SCIENCE ADJUNCT COURSES

ESOL ADJUNCT EARTH SCIENCE (ESL 572023)

Schools offering course: 2, 3, 4, 7, 10

ESOL ADJUNCT BIOLOGY (ESL 572123)

Schools offering course: 3, 7, 10

ESOL ADJUNCT CHEMISTRY (ESL 572323)

Schools offering course: 0

Grades: 9-12

Prerequisite: ESL I or ESOL Teacher Recommendation Credit: 1

ESOL students enrolled in the regular science class may be offered this class to support and reinforce all content objectives of the regular science course. Taught by the ESOL teacher, this course can count as ESL II, III, or IV.

Schools offering course: 2, 3, 4, 6, 7, 8, 9, 10

SOCIAL STUDIES ADJUNCT COURSES

ESOL ADJUNCT WORLD HISTORY & GEOGRAPHY from 1500 (ESL 572024)

Schools offering course: 3, 7, 10

ESOL ADJUNCT US & VA GOVERNMENT (ESL 572224)

Schools offering course: 2, 3, 7, 10

ESOL ADJUNCT US & VA HISTORY (ESL 573924)

Schools offering course: 3, 7

Prerequisite: ESL I or ESOL Teacher Recommendation Credit: 1

ESOL students enrolled in the regular history class may be offered this class to support and reinforce all content objectives of the regular history course. Taught by the ESOL teacher, this course can count as ESL II, III, or IV.

Schools offering course: 2, 3, 4, 6, 7, 8, 9, 10

THE FINE AND PERFORMING ARTS

DANCE, MUSIC, THEATRE AND VISUAL ARTS

GRADUATION REQUIREMENTS IN FINE AND PERFORMING ARTS:

- Advanced Studies Diploma:** student must earn 1 credit
Standard Diploma: student must earn 1 credit
Modified Standard Diploma: student must earn 1 credit

FINE AND PERFORMING ARTS CAN ALSO FULFILL THE FOLLOWING GRADUATION REQUIREMENTS:

- **Fine Arts credit**
- **Sequential Electives**
- **Elective Credit**

** Eligibility and participation in the Modified Standard Diploma program shall be determined by the student's Individual Education Program (IEP) team and the student, where appropriate, at any point after the student's 8th grade year. A student who has chosen the Modified Standard Diploma shall be allowed to pursue the Standard or Advanced Studies Diploma at any time throughout his/her high school career.

DANCE ELECTIVE COURSE SEQUENCE

DANCE I (930460)

Grades: 9-12

Prerequisite: *Acceptance to the Center for Fine and Performing Arts or recommendation from the Program Coordinator*

Credit: 1

The content of Dance I is designed to provide students with a survey of the dance arts. Students will be introduced to ballet, modern dance, and jazz techniques, dance vocabulary, choreographic concepts, and dance history. Students will also develop performance skills, conduct criticism, practice beginning composition, and begin to develop their dance portfolios.

School offering course: 6

DANCE II (930660)

Grades: 9-12

Prerequisite: *Successful Completion of Dance I*

Credit: 1

The content of the Dance II course is designed to integrate and build upon concepts and skills from Dance I. Students increase their range of physical skills through disciplined study of dance technique. Dance improvisation and composition studies expand students' creativity and choreographic craftsmanship. Students also develop performance and production skills. Students refine communicative, interpretive, and evaluative skills by responding to and analyzing a variety of dance experiences. Through historical and cultural studies, students expand their appreciation of the dance arts as a richly expressive, vital contribution to society. While developing awareness of the diversity that exists within the art form, students identify a personal aesthetic and criteria for evaluating the dance arts. Students will continue to develop their dance portfolios.

School offering course: 6

DANCE III (930860)

Grades: 10-12

Prerequisite: *Successful Completion of Dance I and II*

Credit: 1

The content of the Dance III course is designed to further refine physical alignment and technical execution of dance patterns specific to the dance idiom. Students will develop rudimentary understanding of concepts necessary for dance composition. Students will also begin to examine anatomical and kinetic components of dance. The course will also introduce students to early dance history (pre 1900's). This course will also familiarize participants with the various aspects of dance production. Students will continue to develop their dance portfolios.

School offering course: 6

DANCE IV (930960)

Grades: 11-12

Prerequisite: *Successful Completion of Dance II and III*

Credit: 1

The content of the Dance IV course is to develop mastery of physical alignment and technical execution of dance patterns specific to each dance style studied. The students will further explore and implement concepts used in dance composition and continue to develop awareness and understanding of anatomical and kinetic aspects of dance. A continuation of the study of dance history will explore its impact and relevance to dance in the 21st century. Students will continue to develop their dance portfolios.

School offering course: 6

DANCE COMPOSITION I (932160)

REPERTORY (932360)

Grades: 11-12

Prerequisite: *Students must audition*

Credit: 1/2 each semester

Students will be introduced to the process of movement invention while developing the skills for creating and communicating a series of planned movement phrases. Students will also explore different choreographic styles as they produce original choreographed projects for the class.

School offering course: 6

JAZZ DANCE I (931760) **MODERN DANCE I (931160)**

Grades: 11-12

Prerequisite: Students must audition

Credit: 1/2 each semester

Students will review correct physical alignment and technical execution of patterns as they relate to jazz and modern dance. Students will be introduced to theatrical, Latin, lyrical and street jam styles in addition to the modern techniques of such choreographers as Graham, Horton and Limon. Students will explore the performance qualities and history specific to jazz and modern style.

School offering course: 6

MUSIC ELECTIVE COURSE SEQUENCE

CLASS PIANO/GUITAR

Class Piano (9255)

Guitar (9245)

Grades: 9-12

Prerequisite: None

Credit: 1/2 or 1

Students who enroll in the guitar class or the piano class will be taught the necessary music fundamentals required to successfully play these instruments. Scales, music vocabulary, dynamics, technique, rhythmic skills and improvisation will be emphasized. All students will learn the beginning level technical and ensemble skills necessary for performance. Students enrolling in the guitar class will be required to furnish their own textbook and acoustic (non-electric) guitar. Piano students will be required to furnish their own text and headphones. Some limited performance opportunities may be provided in these classes. These courses may be taken more than once for credit.

Schools offering course: 1, 2, 4 (guitar only), 6, 7

ORCHESTRA

Intermediate Orchestra
(923800; 923820)

Advanced Orchestra
(9239)

Orchestra Ensemble
(9251)

Chamber Ensemble
(925300)
(925320)

IBMYP Orchestra
(923850)

Grades: 9-12

Prerequisite: None, except for advanced orchestra

Credit: 1

Students who enroll in the high school orchestra develop technical and ensemble skills through the study of related orchestral literature. Students receive fundamental training in the proper playing of a stringed instrument and study literature commensurate with their level of ability. Members of this class form the representative string performing group for the school. Some after-school rehearsals and performances are required of all students as a part of this course. These courses may be taken more than once for credit. The



curriculum for IBMYP Orchestra will incorporate the MYP five Areas of Interaction, strategies and criteria.

Schools offering course: All (IB is at schools 2, 5 only)

MUSIC THEORY

Music Theory I (9225)

Music Theory II (922600; 922620)

Grades: 9-12

Prerequisite: Music Theory I – Possess music skill and the ability to read music and teacher recommendation;

Music Theory II - Successful completion of Music Theory I and teacher recommendation

Credit: 1

Music Theory is a course designed for the student interested in an in-depth study of the fundamentals of music. Part writing, keyboard harmony, melodic and rhythmic dictation, and other ear-training skills will be developed in this class. Students will likewise develop related skills in music composition, transposition, improvisation, and arranging. Each student will be encouraged to pursue independent study related to individual musical interests.

Schools offering course: 1, 2, 3, 4, 5, 6, 7, 8, 9

MUSIC HISTORY (922200; 922220)

Grades: 9-12

Prerequisite: None

Credit: 1

This course is designed to provide an overview of musical development through the different major stylistic periods with a study of all the major media involved. The approach will be from the study of today's music and how and why it has evolved to its current status. To the extent possible, a multicultural approach to music history will be emphasized. This class may only be taken one time for credit.

Schools offering course: 2, 4

A SURVEY OF WORLD MUSIC (922270)

Grades: 9-12

Prerequisite: None

Credit: 1

This course is designed to expose students to the musical styles and genres from around the world. Students will study recorded performances of international music as well as have the opportunity to hear guest performers, either in school or in the community. By comparing sounds students will be able to recognize differences and similarities between cultures. This course is a CISL elective. It may only be taken one time for credit.

School offering course: 7

CHOIR

Varsity Choir (928500; 928520)

Advanced Varsity Choir (9286)

Concert Choir (9289)

Men's Choir (9282)

Treble Choir (9260)

Vocal Ensemble (9280)

IBMYP Choir (928550)

Grades: 9-12

Prerequisite: Auditions expected for all choirs except Varsity and Bass/Men's Choir

Credit: 1

The high school choral program offers various courses to develop the student's musical skills based on his/her level of ability. Classes in varsity choir, concert choir, bass choir, treble choir, or vocal ensemble allow students to learn a variety of vocal skills through the study of related choral literature. Students in these classes develop technical facility and proficient musicianship through a variety of performance experiences. Through group performances, solos, and ensembles, the student is exposed to standard choral repertoire encompassing various styles and periods of music. Some after-school rehearsals and performances are required of all students as a part of these courses. These courses may be taken more than once for credit. The curriculum for IBMYP chorus will incorporate the MYP five Areas of Interaction, strategies and criteria.

Schools offering course: All (IB is at schools 2, 5 only)

Advanced Varsity Choir Not offered at WSHS, FPHS or Freedom High School

Treble Choir not offered at Freedom

WOMEN'S CHORALE (928100)

Grades: 9-12 at Woodbridge; 10-12 at Hylton (audition only)

Prerequisite: None

Credit: 1

Women's Chorale is for any female who has not had singing experience in high school. The majority of the class is for incoming ninth graders, although upperclassmen sing also. There is no audition. *Note: At Hylton and Forest Park Women's Chorale is for any female who has at least one year of singing experience in high school and is in Grade 10, 11, or 12. The class is selected by audition.*

Schools offering course: 5, 6, 7, 8, 9

WOMEN'S CHAMBER CHOIR (9284)

Grades: 10-12

Prerequisite: One year of high school choir

Credit: 1

This class offers the opportunity for girls in Grades 10-12 to study and perform three and four-part music for the female voice at an advanced level. Basic vocal skills will be expanded and a high level of music reading will be encouraged. The class will be selected by audition only and is limited to 25-30 singers.

Schools offering course: 2, 4, 5, 7, 8, 9, 10

CLASS VOICE I (9291), II (9292), III (9293)

Grades: 9-12

Prerequisite: Voice II: successful completion of Voice I with a "B" or better or teacher recommendation

Voice III: successful completion of Voice II with a "B" or better, or teacher recommendation

Credit: 1

Students enrolled in Class Voice I, II, and III will be taught the basic fundamentals of singing. The emphasis of the class will be on posture, breathing technique, tone quality, diction, legato singing, and auditioning techniques. Students will be required to learn and sing solos from a variety of vocal literature appropriate to their skill level. All students will learn basic skills necessary for solo performance with some limited opportunities for performance possible. An emphasis will be placed on preparation for auditions including County, District and State events. Students will be required to purchase songbooks and/or music for class study. Voice lessons with individual development, not as ensemble.

School offering course: 8 (Class Voice I only)

BAND

Ninth Grade Band (923200)

Band/Brass (923270)

Band/Percussion (923271)

Band/Woodwind (923272)

Intermediate Band (9233)

Advanced Band (9234)

Jazz Band (925000; 925020 1 credit)

(925021; 925022 1/2 Credit)

IBMYP Band (923350)

Grades: 9-12

Prerequisite: Audition required for Intermediate, Advanced, and Jazz Bands (8 requires audition)

Credit: 1

The high school band program offers various courses to develop the student's musical skills. Classes in 9th grade band, intermediate band, advanced band, marching band or jazz band allow students to learn technical and ensemble skills through the study of related literature. Some after-school rehearsals and performances are required of all students as an integral part of these courses. Marching band is offered at all schools as part of the high school band program and is an offering for students who are also enrolled in a concert band class. These courses may be taken more than once for credit. Students must provide their own instruments or make arrangements with the teacher to rent school-owned equipment. The curriculum for IBMYP band will incorporate the MYP five Areas of Interaction, strategies and criteria.

Schools offering course: All (IB is at schools 2, 5 only)

MARCHING BAND

Marching Band (924000)

Credit: 1/2

Marching band is offered at all schools as part of the high school band program and is an offering for students who are also enrolled in another band class offering. This course may be taken more than once for credit.

Schools offering course: All

MUSIC TECHNOLOGY (929760)

Grades: 11–12

Prerequisite: *One High School music course, or permission of the instructor.*

Credit: 1

This course will offer students the opportunity to develop an understanding of music composition through the use of digital keyboard, MIDI technology, synthesizers, and music notation software. Students will also develop skills that will assist them with creative and technical expression. A portfolio of compositions, arrangements and recordings representing a variety of styles and compositional situations will be developed throughout the course.

School offering course: 6

ADVANCED MUSIC TECHNOLOGY (929860)

Grades: 10-12

Prerequisite: *Music Technology or permission of the instructor*

Credit: 1

The Advanced Music Technology course will build upon the knowledge and skills acquired in Music Technology and refine the student's ability to arrange and compose original music and scores for film, using both MIDI and audio production techniques. A final portfolio which demonstrates the student's music development throughout the year will be required. The course will fulfill an elective requirement in the Music Technology concentration of the Center for the Fine and Performing Arts.

School offering Course: 6

MUSIC ADVANCED PLACEMENT COURSE

AP MUSIC THEORY (922660)

Grades: 11-12

Prerequisite: *Successful completion of Piano Class or one year of a high school music performing ensemble*

Credit: 1

AP Music Theory provides students the learning experience equivalent to a college introductory course in music theory. Major areas of study include compositional procedures, listening skills (particularly those involving recognition and comprehension of melodic and rhythmic patterns), harmonic functions, compositional techniques, music textures, music terminology, notation skills, sight-singing, and score analysis. At the end of the course, students will be prepared to successfully complete the AP Music Theory Examination.

School offering Course: 6

INTERNATIONAL BACCALAUREATE MUSIC COURSE SEQUENCE

IB MUSIC I (922750)

Grade: 11

Prerequisite: *Two years of high school music*

Credit: 1

IB Music I is part one of a two-year program resulting in an International Baccalaureate Certificate or Diploma. The course develops an in-depth understanding of music theory. Study will include intervals, choral development, transposition, composition, analysis, ear training, sight-singing, and basic piano skills. Students will be required to participate in high school performing organizations and take private lessons during the course.

School offering course: 2

IB MUSIC II (922850)

Grade: 12

Prerequisite: *Successful completion of IB Music I*

Credit: 1

IB Music II is part two of a two-year program resulting in an International Baccalaureate Certificate or Diploma. The course is a continuation of IB Music I, with emphasis on music history. Students will explore all time frames of music history. Topics covered will include Gregorian Chant, baroque music, classical music, 20th Century music, and score reading. Students will be required to keep a composition portfolio and perform a lecture-recital. Depending on their skill and experience, students may prepare for either higher level or subsidiary level examinations. Students will prepare for the IB Music HL exam.

School offering course: 2

CAMBRIDGE MUSIC COURSE SEQUENCE

IGCSE MUSIC STUDIES (922240)

Grades: 10-12

Prerequisite: *Successful completion of one year of music studies at the high school level and teacher recommendation, Theory I, advanced music ensemble or private instruction*

Credit: 1

IGCSE Music Studies will provide students with a basis for an informed appreciation of music and a foundation for further study of music at an advanced level. Students will develop a perceptive, critical response to the main historical periods and styles of Western music. Students will also recognize and understand the music from a variety of non-Western traditions, thus forming an appreciation of similarities and differences among cultures. Students will acquire basic musical skills, knowledge, and understanding of world music through listening, performing, and composing activities. Successful completion of the end of course exam will result in an IGCSE or an ICE certificate.

Schools offering course: 1, 4

THEATRE ELECTIVE COURSE SEQUENCE

THEATRE I: INTRODUCTION TO THEATRE (141061)

Grades: 9-12

Prerequisite: *None*

Credit: 1

Students survey the theatre arts. They have opportunities to experience and appreciate dramatic literature and to participate in the creative processes of performance and production, with emphasis on skill development and theatrical opportunities that enable students to determine personal areas of interest.

Schools offering course: *All*

AN EXPLORATION OF PERFORMANCE IN THEATRE (141062)

Grades: 10-12

Prerequisite: *Introduction to Speech Communication and Theatre and teacher recommendation*

Credit: 1

Students have advanced opportunities for reinforcement, refinement and expansion of the acting skills learned in An Introduction to Speech Communication and Theatre.

Schools offering course: *All*

THEATRE PRODUCTION (143561)

Grades: 10-12

Prerequisite: Introduction to Speech Communication and Theatre and teacher recommendation

Credit: 1

Students study the design, scenery, lighting, makeup, sound, costumes, and public relations necessary to ensure successful theater productions.

Schools offering course: All

INTERNATIONAL BACCALAUREATE THEATRE COURSE SEQUENCE

IB THEATRE ARTS (SL) (141050)

Grades: 11-12

Prerequisite: Successful completion of Theatre I and/or Exploration of Performance in Theatre and an audition

Credit: 1

IB Theater Arts students study performance skills (ensemble work, mime/movement, voice, role play, and acting techniques/characterization), theatre studies (historical and theoretical developments), play analysis and interpretation, and theatre production. Students are required to contribute to and participate in theatre productions. Completion of the course's IB examination is also required.

Schools offering course: 2

THEATRE ELECTIVES FOR FINE AND PERFORMING ARTS CENTER

ACTING SHAKESPEARE (143021)

Grade: 12

Prerequisite: Theatre I

Credit: 1/2

Students learn the rigors of classical acting and the brilliance of Shakespeare's theatre, which evolved out of the English Renaissance, and continues appeal to audiences in our time.

School offering course: 6

MUSICAL THEATRE (143062)

Grade: 11

Prerequisite: Enrollment as a 3rd year student in The Center for the Fine and Performing Arts Vocal Music, Dance or Theatre programs

Credit: 1

Students study the collaborative efforts involved in creating the stage musical. In the process they fuse three areas of the CFPA program: singing, dancing and acting.

School offering course: 6

ADVANCED PERFORMANCE THEATRE (143063)

Grade: 11

Prerequisite: Enrollment as a 3rd year student in The Center for the Fine and Performing Arts Theatre program

Credit: 1

Students explore acting for classical and traditional theatre of the 20th century, including the works of American playwrights, Eugene O'Neill and Tennessee Williams. Students in this class have access to the educational programs from theatres such as the Folger Shakespeare Theatre and Arena

Stage. Priority is given to CFPA Theatre students who have completed Introduction to Theatre and An Exploration of Performance in Theatre. Students from all Concentration Areas of CFPA or other WSHS students may elect this course with special permission if they have met the prerequisites.

School offering course: 6

DIRECTING FOR THE STAGE AND SCREEN (144060)

Grade: 12

Prerequisite: Theatre I, Advanced Performance Theatre

Credit: 1/2

The student learns how to create a vision for a production and to share that vision with the actors and the design teams who bring that vision to the stage or screen. The student selects plays and analyzes and edits the script. The student learns to develop calendars, scene designs, ground plans, story boards, and shooting techniques. The student will learn the technical vocabulary, direct for various theatrical stages, as well as for the camera, and develop techniques for optimal uses of performance space. The student studies differing types of theatre and the techniques and styles of important screen and stage directors.

School offering course: 6

VISUAL ART ELECTIVE COURSE SEQUENCE

ART I – BASIC FOUNDATIONS (912000; 912020; 912030)

IBMYP Art I (912050)

Grades: 9-10

Prerequisite: None

Credit: 1 (36 weeks)

First-year art students are enrolled in a Basic Foundations course. Art foundations will include two-dimension and three-dimension art production as well as visual literacy experiences with a focus on the elements of art and an introduction to the principles of design. The curriculum for IBMYP Art I will incorporate MYP five Areas of Interaction, strategies and criteria.

Schools offering course: All (IB is at schools 2, 5 only)

ART II (913000; 913020; 913030)

Focus on the principles of design with reinforcement of the elements of art

Prerequisite: A grade of "C" or better in Art I

ART III (914000; 914020; 914030)

Focus on art periods, styles and cultures through art production

Prerequisite: A grade of "C" or better in Art II or teacher recommendation

ART IV (914500; 914520) (Not offered at Battlefield)
Focus on art periods, styles, cultures and artists through art

Prerequisite: A grade of "C" or better in Art III

ART V (914700; 914720; 914730)

Focus on a particular art period, style, culture and artist through art production

Grades: 10-12

Prerequisite: Successful completion of the previous course with a "C" or better and a teacher recommendation

Credit: 1

Year Course - 36 weeks: 1 credit

These courses are sequentially designed to extend and further develop experiences in the Basic Foundations course. Artistic expression is explored through discipline-based art education (art production, art history, art aesthetics, and art criticism).

Schools offering course: All

ART PORTFOLIO PREPARATION (914701)

Grades: 10-12

Prerequisite: Successful completion of Art I and II with a “B” or better average or Art I with an “A” average and/or approval of the department chairperson

Credit: 1

The Art Portfolio Preparation studio is intended for highly motivated students committed to serious study in art. The studio will focus on the student’s individual artistic talents. The portfolio, compiled by the student, will demonstrate a variety of experiences in the formal, technical, and expressive means. This course is highly recommended for juniors considering AP Art their senior year.

Schools offering course: Each school’s offerings are determined by enrollment

PHOTOGRAPHY (919300; 919320)

Grades: 10-12

Prerequisite: Successful completion of Art I with “B” or better and teacher recommendation. Student must provide a 35mm S.L.R. camera

Credit: 1

The study of black and white photography as an art medium is introduced. Light, design, lens, camera, film, and darkroom techniques are explored. The history of photography and related career opportunities provide a broad overview of the continually growing technical and artistic field of photography. Student self-expression as a means of creative communication is emphasized throughout the course. A student portfolio is maintained for assessment and exhibition.

Schools offering course: 1, 4, 5, 7, 8, 9, 10

PHOTOGRAPHY II (919400)

Grades: 10-12

Prerequisite: Successful completion of Photography I with a “B” or better and recommendation from Photography instructor

Credit: 1

Students will expand photography skills using 35mm cameras. Emphasis will be placed on the study of personal expression and development of creativity. Advanced camera problems and darkroom techniques will be studied through a variety of assignments. The history of photography will be offered through the study of major photographers, photographic imagery, the use of photography for artistic communication, and the major themes used by photographers. Ethical issues concerning photographic imagery will be explored. Students will also explore digital cameras and scanners to create photographic compositions. Students will produce a portfolio containing both 35 mm and digital photographs reflecting a series of works organized around a compelling visual concept or concentration.

Schools offering course: 1, 5, 7, 8, 9, 10

COMPUTER ART I (918021)

Grades: 10-12

Prerequisite: Successful completion of Art I or IT Graphic Design/Commercial Art with a “B” or better and recommendation from Art Teacher

Credit: 1

This course places emphasis on the production of artistic computer imagery, rather than commercial/web graphics. Student will use photographic software to examine and alter images for computer graphic and fine art applications. The study of aesthetics and history of art will be included in the course. Students will combine natural art media, scanned images and digital photography with computer imagery. Student will be required to produce digital portfolios.

Schools offering course: 6, 8, 9

ART HISTORY (917070)

Grades: 9-12

Prerequisite: None

Credit: 1

Art History will provide a comprehensive program of study that includes architecture, painting, sculpture and other visual art forms in relation to history and cultures. Students will study medieval times through modern art trends. Two visits to Washington’s art galleries are included to evaluate different works of art. This course may be of particular interest to CISL students and is a prerequisite for students wishing to take AP Art History. This course will complement classes in the humanities, providing multicultural and interdisciplinary connections. Students will be expected to pursue their own artistic talents outside the classroom.

Schools offering course: 5, 7, 8, 9

SCIENTIFIC ILLUSTRATION (912040)

Grades: 9-12

Prerequisite: None

Credit: 1

Scientific Illustration is an alternative class to the Art I Elective, and will meet the SOL’s for Art I while using scientific material as a subject and source of inspiration. The basic elements of art and the principles of design will be studied. This course will specifically meet the needs of specialty program students and other students who indicate an interest in studying art through the lens of science. The course focuses on the development of artistic skills, understanding of creative techniques, aesthetics awareness, and historical and cultural knowledge. A cumulative portfolio of selected works of art from each level will demonstrate the students’ individual growth and reflect a broad range of techniques, media, and styles all reflecting ethical practices.

Schools offering course: 3, 10

ART ADVANCED PLACEMENT COURSES

ADVANCED PLACEMENT STUDIO ART (2-D Design) (914800)

Grades: 9-12

Prerequisite: Completion of Art I and II with a “B” or better, or teacher recommendation. Recommend completion of Portfolio Prep prior to AP Art

Credit: 1

The Advanced Placement studio studies are intended for the highly motivated students committed to serious study in art. Students should have completed Art I and II and have an art teacher recommendation for this

course. This portfolio is intended to address a very broad interpretation of two-dimensional (2-D) design issues. This type of design involves purposeful decision-making about how the use of the elements and principles of art work in an integral way. This portfolio is comprised of 3 sections: Quality (5 actual works of art), Concentration (12 slides which reflect a series of art around a visual concept in 2-D Design) and Breadth (12 slides that demonstrate a wide variety of concepts, media and approaches.) Actual works of art and slides are submitted for AP Examination review.

Schools offering course: 1, 3, 4, 6, 7, 8, 9

ADVANCED PLACEMENT STUDIO ART (DRAWING) (915020)

Grades: 9-12

Prerequisite: Completion of Art I and II with a “B” or better and teacher recommendation. Recommend completion of Portfolio Prep prior to AP Art.

Credit: 1

The Advanced Placement studio studies are intended for the highly motivated students committed to serious study in art. Students should have completed Art I and II and have an art teacher recommendation for this course. This portfolio is intended to address a very broad interpretation of drawing issues and media. The AP Drawing portfolio is comprised of 3 sections: Quality (5 actual works of art), Concentration (12 slides which reflect a series of art around a visual concept in drawing) and Breadth (12 slides that demonstrate a variety of concepts, media, and approaches). Actual works of art and slides are submitted for AP Examination review.

Schools offering course: 1, 3, 4, 6, 7, 8, 9

ADVANCED PLACEMENT STUDIO ART (3-D DESIGN) (914920)

Grades: 9-12

Prerequisite: Completion of Art I and II with a “B” or better and teacher recommendation. Recommend completion of Portfolio Prep prior to AP Art

Credit: 1

The Advanced Placement studio studies are intended for highly motivated students committed to serious study in art. Students should have completed Art I and II and have an art teacher recommendation for this course. This portfolio is intended to address a broad interpretation of sculptural issues in depth and space. This portfolio is comprised of 3 sections: Quality (10 slides consisting of 2 views each of 5 works), Concentration (12 slides of a series of works organized around a compelling visual concept in 3-D Design) and Breadth (16 sides consisting of 2 views each of 8 works that demonstrate a variety of concepts, media and approaches). Slides are submitted for AP Examination review.

Schools offering course: 1, 3, 6, 7, 8, 9

ADVANCED PLACEMENT ART HISTORY (915120)

Grades: 11-12

Prerequisite: Successful completion of one year of art history with a “B” or better average and approval of the department chairperson

Credit: 1

The Advanced Placement Program in the History of Art is designed to provide the same benefits to secondary students as are provided by an introductory college course in art history: an understanding and enjoyment of architecture, sculpture, painting, and other art forms within a historical and cultural context. In the course students learn to look at works of art with intelligence and sensitivity, examining the major forms of artistic expression of the past and of distant cultures as well as those of our own time and environment in preparation for the advanced placement test.

Schools offering course: Each school’s offerings are determined by enrollment

CAMBRIDGE PROGRAM ART COURSE SEQUENCE

IGCSE ART & DESIGN (917040)

Grades: 10-12

Prerequisite: A grade of “B” or better in Art I and teacher recommendation

Credit: 1

IGCSE Art & Design stimulates and develops a student’s observational skills, imagination, conceptual thinking, and analytical ability. It increases the student’s awareness of artistic contributions of a variety of cultures and his understanding of the role of visual arts in history. The course enriches the student’s own appreciation of the many visual forms of personal expression and encourages his efforts to visually represent the world that he observes. Course content includes drawing, painting, graphics, photography, textiles, and 3-D studies. Successful completion of the end of course exam will result in an IGCSE or an ICE certificate.

Schools offering course: 1, 4

AICE ART & DESIGN (915540)

Grades: 11-12

Prerequisite: Successful completion of Art II or IGCSE Art with a “B” or better and teacher recommendation.

Credit: 1

AICE Art & Design encompasses a broad range of activities to allow students to pursue personal interests and challenges in the field of visual communication. The course is designed to develop a student’s ability to record from direct observation and personal experience, to communicate his observations and experiences through disciplined approaches, and to use experimentation and imagination in creative ways. The student will demonstrate an ability to identify, research, evaluate and solve problems of design and visual communication. The student will learn to use relevant vocabulary to make critical judgments of the subject matter and to demonstrate an appreciation for various cultural influences in the field of Art & Design. Successful completion of this course will result in an AS or A-Level certificate and can contribute toward an AICE Diploma.

Schools offering course: 1, 4

CENTER FOR FINE AND PERFORMING ARTS COURSE SEQUENCE

CFPA ART I – BASIC FOUNDATIONS (912060)

Grades: 9-12

Prerequisite: None

Credit: 1

This course is designed for the first-year CFPA student. The areas of concentration will include basic foundations, principles of design, elements of design, visual literacy, two-dimensional design and three-dimensional design. This course will serve as the prerequisite for all advanced CFPA studio classes and prepare the student in a specific medium. Each student will be required to present an exit portfolio of the work prepared in the class.

School offering course: 6

CFPA ART II (913060)

Grades: 10-12

Prerequisite: A grade of 2.5 or better in CFPA Art I

Credit: 1

This course is designed for the second-year CFPA student and includes a more in-depth study of basic foundations, media and stylizations. The student will be encouraged to develop a particular medium. Each student will be required to present an exit portfolio of the work prepared in the class.

School offering course: 6

CFPA PAINTING I/Media and Design: Painting (919961)

Grades: 10-12

Prerequisite: Successful completion of CFPA Art II or ART II or approval by the CFPA faculty

Credit: 1/2

Media & Design: Painting is an exploration of painting with emphasis on the individual's study of two-dimensional form while adding to student's current knowledge of painting. Works created by students will utilize a wide variety of materials and media. Students will experiment with various techniques. They will explore the works of professional painters. Students will develop a painting portfolio.

School offering course: 6

CFPA – SCULPTURE I/ Media and Design: Sculpture (919962)

Grades: 10-12

Prerequisite: Successful completion of CFPA ART II or ART II with approval of the CFPA faculty.

Credit: 1/2

Media and Design: Sculpture is an exploration of sculpture with emphasis on the individual's study of three-dimensional form while adding to student's current knowledge of sculpture. Works created by students will utilize a wide variety of materials and media. Students will experiment with various techniques. They will explore the works of professional sculptors. Students will develop a sculpture portfolio.

School offering course: 6

CFPA PERIOD ART/Period Art Seminar (919964)

Grades: 10-12

Prerequisite: Successful completion of CFPA ART II or ART II with approval from the CFPA faculty

Credit: 1/2

Period Art Seminar is a course designed to focus on a specific period of art or a specific group of artists. Students will become familiar with the history and trends related to the focus topic, and they will create artwork using period art/artists as models. They will explore the works of professional artists and engage in related oral and written discussions. Students will develop a course portfolio.

School offering course: 6

CFPA STUDIO ART/Studio Art Seminar (919965)

Grades: 10-12

Prerequisite: Successful completion of CFPA ART II or ART II with approval from CFPA faculty

Credit: 1/2

Studio Art Seminar is a course designed to focus on a specialty area of the visual arts. Students will become familiar with the specific tools, materials, and techniques related to the focus topic, and they will create artwork in the specialized medium. They will explore the works of professional artists in the specialized medium and engage in related oral and written discussions. Students will develop a course portfolio. In the early stages only one seminar will be offered per semester. As the program grows, additional sections will be offered. The topic offered will be decided based on a survey of CFPA advanced students in January of the preceding school year.

School offering course: 6

INTERNATIONAL BACCALAUREATE ART COURSE SEQUENCE

IB VISUAL ARTS I (HL) (914051)

Grades: 11-12

Prerequisite: Successful completion of two years of high school art courses with a grade of "B" or better in each and/or teacher recommendation

Credit: 1

IB Visual Arts is the first year of a two-year program resulting in an International Baccalaureate Certificate or Diploma. The course is intended for highly motivated students committed to serious study in art. The aim of this course is to provide opportunities to develop the aesthetic, imaginative, and creative faculties as well as to train visual, perceptual, and critical awareness of arts of various cultures. The portfolio, compiled by the student, will demonstrate intensive concentration in studio work and/or research in preparation for the required IB assessment at the end of the second year. Credit will be awarded upon the completion of the two-year program.

Schools offering course: 2, 5

IB VISUAL ARTS II (HL) (914551)

Grade: 12

Prerequisite: Successful completion of IB Visual Arts I

Credit: 1

IB Visual Arts II is the second year of a two-year program resulting in an International Baccalaureate Certificate or Diploma. The course is intended for highly motivated students committed to serious study in art. Students will combine persistent research with regular studio work, developing appreciation, creativity, technical skills, and a feeling for the fundamentals of design. Students are required to take part in the IB assessment process. Credit will be awarded upon the completion of the two-year program.

Schools offering course: 2, 5

IB VISUAL ARTS (SLA or SLB) (913050)

Grade: 11 or 12

Prerequisite: Completion of one year of high school art with a “C” or better average and/or teacher approval

Credit: 1

IB Visual Arts (Standard Level) is a one-year program resulting in an International Baccalaureate Certificate or Diploma. The course is intended for highly motivated students committed to serious study in art. Students will combine persistent research with regular studio work, training, visual, perceptual, and critical awareness of the arts of various cultures, as well as developing creativity, technical skills, and a feeling for the fundamentals of design. Students may choose either SLA (a concentration in studio work) or SLB (a concentration in research). Students are required to take part in an IB assessment process.

Schools offering course: 2, 5

INSTRUCTIONAL TECHNOLOGY (IT) ART COURSE SEQUENCE

IT GRAPHIC DESIGN (915381)

Grades: 9-12

Prerequisite: Acceptance into the IT Program

Credit: 1

IT Graphic Design is designed to train students to become visual communicators. Students will apply the knowledge and understanding of the elements and principles of art through various media, techniques, and processes to solve problems in visual communications. A variety of 2-D and 3-D media will be used. Students will explore technical aspects of layout, typography, illustration, design, and color psychology using traditional graphic tools and electronic media. Students will learn about the ethical issues in the commercial field, management of time to meet deadlines, working in a team, and expressing and defending their ideas. Also, students will study the history and cultural impact of visual communications. Works generated will be the basis for beginning a Graphics Art Portfolio.

Schools offering course: 8, 9

IT COMPUTER GRAPHICS I (918080)

Grades: 10-12

Prerequisite: Successful completion of IT Graphic Design with a “B” or better and a background in computer applications is recommended and teacher recommendation.

Credit: 1

This course prepares students for upper-level computer graphics and multimedia as well as entry-level career opportunities in the computer graphics industry. The course of study includes learning the foundations of computer graphics, photo design, and production as well as taking images from concept to completion in print and on the web. Tools such as digital cameras and scanners are used to import art and graphics into the computer. The students' artistic abilities will be enhanced as they master Adobe's Photoshop software to complete the design and production process.

Schools offering course: 8, 9, 99

IT COMPUTER GRAPHICS II (918180)

Grades: 11-12

Prerequisite: Successful completion of IT Computer Graphics I with a “B” or better, teacher recommendation

Credit: 1

IT Computer Graphics II is a continuation of IT Computer Graphics I. The course of study will include Adobe Illustrator and Bryce 3-D, plus other applications for image creation and manipulation. The emphasis will be on the study of aesthetics and on the production of original computer imagery. This course will enable modeling for print reproduction rather than web production. Students will work on individual as well as team projects. Students will be required to produce professional portfolios.

Schools offering course: 8, 9

IT MULTIMEDIA SOFTWARE DESIGN AND DEVELOPMENT I Academy of Multimedia I (918081)

Grades: 11-12

Prerequisite: Computer Graphics I, “B” average, teacher recommendation

Credit: 1

Multimedia prepares students for the challenging world of information design, multimedia development, web-based development and learning management. The processes and tools that address these aims include HTML, Javascript, Macromedia Dreamweaver and Flash. Computer based multimedia combines all the facets of communication into an interactive product. The ethical issues of copyright laws and fair use issues will be emphasized. Students will work individually and in teams to complete the project.

Schools offering course: 8, 9

IT MULTIMEDIA SOFTWARE DESIGN AND DEVELOPMENT II Academy of Multimedia II (918181)

Grades: 12

Prerequisite: Academy of Multimedia I, “B” average, teacher recommendation

Credit: 1

Multimedia II continues the student's study of the challenging world of information design, multimedia web-based development and learning management. Students will use informational design and multimedia software to study advanced applications in the field of multimedia design. Study of new applications will include Macromedia Director and Adobe Premier. Video and computer based multimedia will be combined into an interactive product. The ethical issues of copyright laws and fair use issues will be reviewed. Students will work individually and in teams to complete projects. Students will produce a digital portfolio.

Schools offering course: 8, 9

IT PHOTOGRAPHY (919380)

Grades: 11-12

Prerequisite: Concurrently enrolled in IT Multimedia Software Design & Development, teacher recommendation

Credit: 1

The study of 35 mm print photography focusing on darkroom development will be introduced. Advanced studies of digital photography using cameras, scanners, and photo editing software will be explored. Students will examine through the camera lens how the elements of art and principles of design contribute to effective compositions that communicate a clear message. Students will compare/contrast the history of photography and digital photography. Ethical issues concerning photographic imagery will be explored. Students will produce a portfolio containing both 35 mm and digital photographs to be used in multimedia classes. This course is designed for interactive media students seeking advanced IT certificate.

Schools offering course: 9

FOREIGN (WORLD) LANGUAGE

GRADUATION REQUIREMENTS:

Advanced Studies Diploma: student must earn three credits in one language or two credits in two languages

Standard Diploma: Foreign Language may be used to fulfill elective and/or sequential elective requirement

Modified Standard Diploma: Foreign Language may be used to fulfill elective and/or sequential elective requirement

FOREIGN LANGUAGE CAN FULFILL THE FOLLOWING GRADUATION REQUIREMENTS:

- Required Foreign Language sequence for Advanced Studies Diploma
- Sequential Elective
- Elective Credit
- Spanish for Native Speakers courses count as Foreign Language Courses

MODERN FOREIGN/ WORLD LANGUAGES

FRENCH I (511020)

GERMAN I (521000; 521020; 521030)

SPANISH I (551020; 551030)

ITALIAN I (574000)

Grades: 9-12

Prerequisite: None

Credit: 1

Students use the language authentically, communicating in real-life situations from the beginning of the course. They learn the sound system and basic grammar and vocabulary, primarily through use of the language in meaningful contexts. All basic skills of the language are learned: understanding, speaking, reading, and writing. Emphasis is on communication in interpersonal situations. Culture is an integral part of the course.

Schools offering courses:

French I: All

German I: 3, 4, 6, 7, 8, 9

Spanish I: All

Italian I: 6, 7

RUSSIAN I (541070)

Grades: 9-12

Prerequisite: None

Credit: 1

Russian I students will examine the Cyrillic alphabet and essential elements of pronunciation. Speaking and listening skills will be developed through personal interaction and access to authentic material. Basic grammar and vocabulary are introduced. The course will be infused with the culture and customs of the Russian people.

Schools offering course: 7, 8

CHINESE I (MANDARIN) (581070)

Grades: 10-12

Prerequisite: Successful completion of two years of a foreign language and teacher recommendation

Credit: 1

Chinese I is designed to introduce and to make students comfortable with the most widely spoken language on earth. Pronunciation will emphasize romanization, tones, initials, and finals. Students will examine Chinese characters from a number of angles and will learn the basic principles of grammar. A vocabulary of essential words will be developed and practiced. The course will be infused with the culture and customs of the Chinese people.

School offering course: 7

FRENCH II (512020)

GERMAN II (522020; 522030)

SPANISH II (552000; 552020; 552030)

ITALIAN II (575000)

Grades: 9-12

Prerequisite: Level I ("B" or better recommended) and teacher recommendation

Credit: 1

Students continue to learn the language through its use in realistic contexts with more complex grammatical structures. Additional listening, speaking, writing and reading skills are acquired through practice with authentic materials and in real-life situations. The study of customs and culture is an integral part of the course.

Schools offering courses:

French II: All

German II: 3, 4, 6, 7, 8, 9

Spanish II: All

Italian II: 6, 7

ADVANCED FRENCH II (512060)

ADVANCED SPANISH II (552070)

Grade: 9

Prerequisite: Level I ("B" or better recommended) or equivalent, teacher recommendation

Credit: 1

Advanced French or Spanish II is an accelerated program of study for grade 9 students. Students continue to learn the language through its use in realistic contexts with more complex grammatical structures. Additional listening, speaking, writing and reading skills are acquired through practice with authentic materials and in real-life situations. The study of customs and culture is an integral part of this course.

School offering course: 7

RUSSIAN II (542070)**Grades: 10-12****Prerequisite: Russian I (“B” or better) or equivalent and teacher recommendation****Credit: 1**

Russian II will provide students additional tools to improve conversational skills, listening comprehension, and proficiency in reading and writing. Emphasis will be placed on the acquisition of more complex grammatical structures. Exposure to authentic materials and situations will increase.

The study of culture will enhance students’ understanding of the language.

Schools offering course: 7, 8**FRENCH III (513020)****GERMAN III (523000; 523020; 523030)****SPANISH III (553020; 553030)****ITALIAN III (576000)****Grades: 9-12****Prerequisite: Level II (“B” or better recommended) and teacher recommendation****Credit: 1**

The emphasis for study continues on all four skills of communication, listening, speaking, reading, and writing. Students continue to work toward the mastery of the essential elements of grammar and the development of a sufficient vocabulary to use the language proficiently in most situations. Reading skills continue development through use of more challenging authentic materials. Students’ writing skills are expected to be increasingly complex and sophisticated. Students continue to develop an awareness and appreciation of other cultures and customs in their community and globally.

Schools offering courses:**French III: All****German III: 2, 3, 4, 6, 7, 8****Italian: 6, 7****Spanish III: All****RUSSIAN III (543070)****Grades: 10-12****Prerequisite: Russian II (“C+” or better) or equivalent and teacher recommendation****Credit: 1**

Russian III will continue to provide students additional tools to improve conversational skills, listening comprehension, and proficiency in reading and writing. Emphasis will be placed on the acquisition of more complex grammatical structures as found in extended reading passages and writing prompts. Exposure to authentic materials such as video series and situations will increase. The study of culture will enhance students’ understanding of the language and help dispel stereotypes of the Russian people.

Schools offering course: 7, 8**FRENCH IV (514001)****GERMAN IV (524001; 524031)****SPANISH IV (554001)****ITALIAN IV (577000)****Grades: 9-12****Prerequisite: Level III, Pre-AP III, or Spanish for Native Speakers III (“B” or better recommended) and teacher recommendation****Credit: 1**

Oral communication is practiced through conversation, group discussion, skits, dialogues, reports, and reading selections. Reading for comprehension of ideas rather than for individual word or sentence meaning is developed. Controlled writing decreases and skills for practicing free composition are developed. Vocabulary building encompasses extensive practice with idioms, synonyms, and antonyms. Students broaden their appreciation of the foreign culture through the study of current and historical events and literature.

Schools offering courses:**French IV: 1, 2, 3, 4, 6, 7, 8, 9, 10****German IV: 3, 4, 6, 7, 8****Spanish IV: 1, 2, 3, 4, 6, 7, 8, 9, 10****Italian IV: 6, 7****FRENCH V (515001; 515050)****GERMAN V (525001)****SPANISH V (555001)****Grades: 10-12****Prerequisite: Level IV, Pre-AP IV or Spanish for native Speakers III (“B” or better recommended) and teacher recommendation****Credit: 1**

Speaking and listening skills are practiced primarily through classroom discussion of reading materials. Analysis of the various literary forms becomes a significant part of the reading program. Both required and independent reading takes place. Writing skills are further developed through directed writing and free composition. One or two major literary works are read and discussed in some detail.

Schools offering courses:**French V: 1, 2, 3, 4, 6, 7, 9, 10****German V: 3, 4, 6, 7****Spanish V: 1, 2, 3, 4, 6, 7, 9, 10****AMERICAN SIGN LANGUAGE****AMERICAN SIGN LANGUAGE I (599000; 599020)****Grades: 9-12****Prerequisite: None****Credit: 1**

By the end of this course, the students should be able to exchange personal information about themselves in ASL, using the correct vocabulary and grammar. Students are given instruction in basic ASL vocabulary and grammar, fundamentals about Deaf Culture and what it means to be deaf, the history of American Deaf Culture, which is also the history of Deaf Education, and basic rules of social interaction within Deaf Culture.

Schools offering course: 5, 6

AMERICAN SIGN LANGUAGE II (599500; 599520)

Grades: 9-12

Prerequisite: ASL I

Credit: 1

By the end of this course, students should be able to carry on a moderately complex conversation in ASL on a wider variety of topics. Students continue to deepen their understanding of Deaf Culture as well as receive more, in-depth instruction in ASL vocabulary and grammar. The students continue to develop their receptive skills, and now begin to focus more on their expressive abilities in ASL. Role playing and videotaping are an integral part of the course. Students also study hearing loss, assistive devices, and the Americans with Disabilities Act (ADA).

Schools offering course: 5, 6

AMERICAN SIGN LANGUAGE III (599720)

Grades: 9-12

Prerequisite: ASL II

Credit: 1

By the end of this course, students should be able to carry on a moderately complex conversation in ASL on a wider variety of topics. Students will continue to deepen their understanding of Deaf Culture as well as receive more, in-depth instruction in ASL vocabulary and grammar. The students continue to develop their receptive skills, and now begin to focus more on their expressive abilities in ASL. Interactions with the Deaf culture will increase. Role playing and videotaping are an integral part of the course. Students also study hearing loss, assistive devices, and the Americans with Disabilities Act (ADA).

School offering course: 5, 6

CLASSICAL LANGUAGES

LATIN I (531020)

Grades: 9-12

Prerequisite: None

Credit: 1

The student of Latin I is introduced to the morphology of an inflected language with the primary focus on the noun system and indicative mood of verbs. The syntax of the language builds from words and phrases to sentences. The student develops a basic Latin vocabulary with opportunities to enlarge his/her English vocabulary through derivative study. Classical pronunciation to aid in reading comprehension is taught. The student is introduced to the customs of daily life and the geography of ancient Rome.

Schools offering course: 1, 2, 3, 4, 5, 7, 8, 9

LATIN II (532020)

Grades: 9-12

Prerequisite: Latin I (“C+” or better recommended) or equivalent and teacher recommendation

Credit: 1

Latin II is an elective course offered in Grades 9-12. The student continues a study of Latin morphology with the primary focus on the subjunctive mood of verbs, infinitives and participles, increasingly sophisticated syntactic concepts are introduced, and the student expands his/her comprehension skills through readings of appropriate difficulty. The student continues to develop a Latin vocabulary and to enlarge his/her English vocabulary through derivative study. The student studies the people, places, and events that shaped Roman history.

Schools offering course: 1, 2, 3, 4, 5, 7, 8, 9

LATIN III (533020)

Grades: 10-12

Prerequisite: Latin II (“C+” or better recommended) or equivalent, teacher recommendation

Credit: 1

Latin III is an elective course offered in Grades 10-12 that serves to synthesize the skills already mastered, to complete the corpus of grammar, and to introduce specialized syntactic constructions. The course provides for translation practice, reading comprehension, an introduction to rhetorical devices, and both Latin and English vocabulary expansion through a study of Latin selections. The student develops an understanding of the relationship between the works read and their social, economic, political, and historical contexts.

Schools offering course: 1, 2, 3, 4, 5, 7, 8, 9

LATIN IV (534001)

Grades: 11-12

Prerequisite: Latin III (“B” or better recommended) or equivalent, teacher recommendation

Credit: 1

Latin IV is an elective course offered in Grades 11-12 that serves to refine all grammar skills and to apply these skills to the reading and translation of Latin literature. The student studies in-depth selected works of Latin literature. Emphasis is on increasing comprehension, refining skills for critical analysis, and enhancing the student’s ability to respond to the aesthetic elements of literature. Continued attention is given to the acquisition of Latin vocabulary, especially those words/idioms peculiar to authors read and to the varying connotations of familiar words.

Schools offering course: 1, 2, 3, 4, 7, 8, 9

LATIN V (535001)

Grade: 11-12

Prerequisite: Latin IV (“B” or better recommended) or equivalent, teacher recommendation

Credit: 1

Latin V is an elective course offered in Grades 11 and 12. Extensive reading of various Latin selections of both prose and poetry is emphasized. Discussions will focus on works by Virgil, Horace, Catullus, Ovid, Caesar, Cicero, and Livy, emphasizing their styles, context, and themes of Roman Life. Highly motivated seniors may select to study one or two of the authors in depth in preparation for the Advanced Placement Exam.

Schools offering course: 1, 2, 3, 4, 7

SPANISH NATIVE SPEAKERS PROGRAM

Spanish for Native Speakers Courses allow native or heritage speakers of Spanish to continue to learn Spanish in an accelerated manner commensurate with their pre-assessed skills. Students who take these courses may earn a foreign language credit. The goal is for both native and non-native speakers of Spanish to learn together in the advanced courses beyond Level III.

SPANISH FOR NATIVE SPEAKERS I- BEGINNING LEVEL (551050)

Grades: 9-12

Prerequisite: Native speakers of Spanish & Recommendation of teacher based on assessment of student's skills

Credit: 1

This course is designed for Spanish-speaking students at the high school level. It recognizes the natural skill of native speakers who were born in the US and never had formal education in a Spanish-speaking country, or students who may have come from a Spanish-speaking country and due to many circumstances may not have had the opportunity to receive formal education, yet are proficient in their understanding and speaking of Spanish for interpersonal purposes. The course will build on these existing listening and speaking skills, and also develop basic reading and writing skills, with an emphasis on grammatical concepts. The course will try to tap the natural potential of native speakers to fill the gap of skill acquisition in general, especially emerging literacy, instill pride in a rich heritage, and allow students to succeed to their full potential.

Schools offering course: 1, 2, 3, 4, 5, 6, 7, 9, 10

SPANISH FOR NATIVE SPEAKERS II - INTERMEDIATE LEVEL (552050)

Grades: 9-12

Prerequisite: Successful Completion of Spanish for Native Speakers I or Native Speakers of Spanish & Recommendation of teacher based on assessment of student's skills

Credit: 1

This course is designed for Spanish-speaking students at the high school level. This level is for Spanish-speaking native speakers who have some proficiency in all skills, to include listening, speaking, reading and writing, but at a level commensurate with students who have had interrupted or limited formal schooling in a Spanish-speaking school. It also recognizes the natural skill of native speakers and emphasizes expansion and not replacement of the student's existing language skills. The course will continue to tap the natural potential of native speakers to fill the gap of skill acquisition, instill pride in a rich heritage, and allow students to succeed to their full potential. The course will also continue to build on existing listening and speaking skills, and especially continue to develop reading and writing skills.

Schools offering course: 1, 2, 3, 4, 5, 6, 7, 9, 10

SPANISH FOR NATIVE SPEAKERS III- ADVANCED LEVEL (553050)

Grades: 11-12

Prerequisite: Successful Completion of Spanish for Native Speakers II or Native Speakers of Spanish & Recommendation of teacher based on assessment of student's skills

Credit: 1

This course is designed for Spanish-speaking students at the high school level. Who have had formal study of Spanish in a school setting in their native countries or have an advanced level of literacy. The course continues to recognize the natural skill of native speakers and emphasizes expansion and not replacement of the student's existing language. The course will continue to tap the natural potential of native speakers to fill the gap of skill acquisition, instill pride in a rich heritage, and allow students to succeed to their full potential. The course will build on existing reading and writing skills and expand authentic readings by authors of the Spanish-speaking world and require advanced compositions and projects.

Schools offering course: 1, 2, 3, 4, 5, 6, 7

PRE-ADVANCED PLACEMENT

PRE-AP FRENCH LANGUAGE III (513010)

PRE-AP GERMAN LANGUAGE III (523010)

PRE-AP SPANISH LANGUAGE III (553010)

PRE-AP LATIN LANGUAGE III (533010)

Grades: 9-12

Prerequisite: Successful completion of Level II (grade "B" or better) and teacher recommendation

Credit: 1

Pre-AP Language III is a course designed to develop proficiency in the language for highly motivated students. Students will be expected to master all of the objectives of the Level III course in a more rigorous and accelerated manner. The course in French, German and Spanish seeks to develop all skills emphasizing language for communication using authentic materials in preparation for further Advanced Placement study. The Pre-AP Latin course seeks to develop all skills emphasizing literal translation of passages, analysis of grammar and rhetorical devices, discussion of motifs and general themes, analysis of characters and situations and free response essays in preparation for further AP Latin study.

Spanish course: 3, 6, 7, 8, 9, 10

French course: 3, 6, 7, 8, 9, 10

German course: 3, 6

Latin course: 3, 7, 9

PRE-AP FRENCH LANGUAGE IV (514010)

PRE-AP GERMAN LANGUAGE IV (524010)

PRE-AP SPANISH LANGUAGE IV (554010)

PRE-AP LATIN LANGUAGE IV (534010)

PRE-AP RUSSIAN LANGUAGE IV (544020)

Grades: 10-12

Prerequisite: Successful completion of Level III (grade "B" or better) or PRE-AP A and teacher recommendation

Credit: 1

Pre-AP B Language is a course designed to continue to develop proficiency in the language for highly motivated students. Students will be expected to master all of the objectives of the Level IV course in a more rigorous and accelerated manner. The course in French, German and Spanish seeks to develop all skills emphasizing language for communication using authentic materials in preparation for further Advanced Placement study. The Pre-AP Latin course seeks to develop all skills emphasizing literal translation of passages, analysis of grammar and rhetorical devices, discussion of motifs and general themes, analysis of characters and situations and free response essays in preparation for further AP Latin study. The PRE-AP B course allows students another year to study the languages in more rigorous manner using the AP syllabus as a guide in preparation for the regular AP Language course in which all students will be required to take the AP exam.

Spanish course: 3, 6, 7, 8, 9, 10

French course: 3, 6, 7, 8, 9, 10

German course: 3, 6

Latin course: 3, 7, 9

Russian course: 7

ADVANCED PLACEMENT

ADVANCED PLACEMENT FRENCH LANGUAGE (517020)

ADVANCED PLACEMENT GERMAN LANGUAGE (527020)

ADVANCED PLACEMENT SPANISH LANGUAGE (557020)

Grades: 10-12

Prerequisite: Successful completion of Pre-AP Language III or IV, Level IV, Level V, or Spanish for Native Speakers III (grade “B”) and teacher recommendation

Credit: 1

Advanced Placement Language is a course designed to develop proficiency in the language for highly motivated students. Students will be expected to master all of the objectives of the advanced curriculum course objectives in a more rigorous and accelerated manner. The course is comparable to the 5th and 6th semester or third year college or university language course and emphasizes language for communication using authentic materials in preparation for the Advanced Placement Language Exam. Students are required to take the AP Language Examination which is administered in May.

Schools offering French course: 3, 6, 7, 8, 9, 10

Schools offering German course: 3, 6, 7, 8

Schools offering Spanish course: 3, 6, 7, 8, 9, 10

ADVANCED PLACEMENT LATIN Vergil (537000)

Grades: 10-12

Prerequisite: Successful completion of Pre-AP Latin Language III or IV, Latin IV, or Latin V (“B” or better required) and teacher recommendation

Credit: 1

The Advanced Placement Latin Course for Level IV is parallel to a middle-level or sophomore college course. The course will concentrate on developing the following skills: writing literal English translations of selected Latin passages; defining specific words and/or phrases in context; identifying the content and significance of short excerpts from the required

ADVANCED PLACEMENT FRENCH LITERATURE (518020)

Grades: 11-12

Prerequisite: Successful completion of Pre-AP IV, Level IV, Level V, or AP French Language (“B” or better) and teacher recommendation

Credit: 1

The Advanced Placement French Literature Course is designed to guide students in acquiring a level of French proficiency sufficient to read, understand, and discuss literary works from the different genres and periods of French literature. During the course, students write expository essays on related topics of the genre and periods. The critical reading of a literary text develops an understanding not only of linguistic complexity and cultural identity, but of certain universal human truths. Students will learn and use some practical and necessary strategies to include expressing their ideas through timed writings, identifying the key features and elements of a text, critical thinking and effective writing in French. These skills will serve the students not only in their college years, but also in their chosen career. Students are required to take the AP Language Examination which is administered in May.

School offering course: 1, 3, 7

ADVANCED PLACEMENT SPANISH LITERATURE (558020)

Grades: 10-12

Prerequisite: Successful completion of Pre-AP IV, Level IV, Level V or Advanced Placement Language (“B” or better) and teacher recommendation

Credit: 1

The Advanced Placement Spanish Literature course is designed to be comparable to a third year college/university course on Peninsular and Hispanic literature. The course will guide students to acquire sufficient proficiency in Spanish language to read, understand, and discuss selected works from both Peninsula and Hispanic literature. Throughout the course students will do close readings from all genres, including poetry, that they will analyze orally and in writing. They will also compose expository essays on related topics. The critical reading of literature develops an understanding not only of linguistic complexity and cultural identity, but also of certain universal human truths. The student will learn and use some practical and necessary strategies to include expressing his ideas through timed writings, identifying the key features and elements of a text, detecting themes, comparing and contrasting, composing one’s thoughts, writing an outline, brainstorming in small groups, and fine-tuning language skills. These skills of critical thinking and writing in Spanish will serve the students not only in their college years, but also in their chosen careers. Students are required to take the AP Language Examination which is administered in May.

Schools offering course: 3, 7

ADVANCED PLACEMENT LATIN LITERATURE (538020)

Grade: 10-12

Prerequisite: Successful completion of Pre-AP Latin Language III or IV, Latin IV or Latin V (“B” or better required) and teacher recommendation

Credit: 1

The Advanced Placement Latin Course for Level IV is parallel to a middle-level or junior-level college course. The course will concentrate on developing the following skills: writing literal English translations of selected Latin passages; defining specific words and/or phrases in context; identifying the context and significance of short excerpts from the required readings; analyzing characteristics or noteworthy features of the author’s mode of expression, word choice and placement, imagery, figures of speech, and sound and metrical effects; discussing particular motifs or general themes in specific passages and in the poem as a whole; and analyzing characteristics or situations as portrayed in specific passages. In applying these skills the student will learn to support any observations in paragraphs or essay form, while citing the specific Latin and English in selected passages. The course will concentrate on one of the three Advanced Placement options: Catullus-Horace; Catullus-Ovid; or Catullus-Cicero. Students are required to take the AP Language Examination which is administered in May.

Schools offering course: 1, 3, 7

CAMBRIDGE PROGRAMME

IGCSE FRENCH III (513045)

IGCSE GERMAN III (523045)

IGCSE SPANISH III (553045)

Grades: 10-12

Prerequisite: A grade of “B” or better in Level I, Level II (or equivalency test), and teacher recommendation

Credit: 1

Students continue to develop proficiency in listening, speaking, reading, and writing with increased emphasis on consistent and sustained language using more complex grammatical structures. Reading skills continue development through the use of more challenging authentic materials. Students increase awareness and appreciation of the culture and civilization of the countries where each language is spoken. Assessment of the four skills will include an external student examination and course work evaluations by the instructor.

Schools offering course: 1, 4

IGCSE LATIN III (533040)

Grades: 10-12

Prerequisite: A grade of “B” or better in Latin I and Latin II

(or equivalency test), and teacher recommendation

Credit: 1

Students will further synthesize the skills already mastered, will complete the corpus of grammar, and will study specialized syntactic constructions. This course will provide for translation practice, reading comprehension, an introduction to rhetorical devices, and both Latin and English vocabulary expansion through study of un-adapted Latin selections. The student develops an understanding of the relationship between the works and their social, economic, political, and historical contexts. Assessment will include an external student examination and course work evaluations by the instructor.

Schools offering course: 1, 4

AICE Classical Studies I (530540)

Grades: 11-12

Prerequisite: None

Credit: 1

This course develops the idea that a multi-disciplinary approach of study combining classical literature, art history, history, science, archeology, and others, leads to an understanding of the relationship between intellectual disciplines. Students are exposed to the course material, including original sources, in a variety of ways, and they gain practical experience in analyzing, interpreting, organizing, and presenting the connections they make in a broader context of the contemporary world.

School offering course: 1

AICE LATIN V (534040)

Grade: 12

Prerequisite: Successful completion of Level IV (“B” or better) and teacher recommendation

Credit: 1

The objectives of this course are based in an accelerated, international curriculum. Students will demonstrate a capacity to draw on the target language source materials in order to produce a piece of composition in Latin presenting ideas in a coherent sequence. Through external

examinations in speaking, listening, reading and writing, students can qualify for an Advanced International Certificate of Education Diploma and Advanced Placement credit in language.

Schools offering course: 1, 4

AICE FRENCH IV (AS) (514040)

AICE GERMAN IV (AS) (524040)

AICE SPANISH IV (AS) (554040)

Grade: 11

Prerequisite: Successful completion of IGCSE III (grade “B”) and teacher recommendation

Credit: 1

The objectives of this course are based on an accelerated, international curriculum. Students will communicate confidently and clearly in the target language and will be able to exchange views and opinions during sustained conversations. Also, they will demonstrate a capacity to draw on the target language source material in order to produce a piece of composition in the target language presenting ideas in a coherent sequence. Through external examinations in speaking, listening, reading and writing students can qualify for an Advanced International Certificate of Education Diploma and Advanced Placement credit in Language.

French course: 1, 4

German course: 4

Spanish course: 1, 4

AICE FRENCH V (A-Level) (515040)

AICE GERMAN V (A-Level) (525040)

AICE SPANISH V (A-Level) (555040)

Grade: 12

Prerequisite: Successful completion of AICE Level IV (AS) (grade “B”) and teacher recommendation

Credit: 1

The objectives of this course are based on an accelerated international curriculum. The A-Level course builds on the language skills gained at IGCSE or AS Level, and is the ideal foundation for the university-level study or to improve career prospects. Students will learn how to use the language in a variety of situations. They will be expected to handle texts and other source materials, extracting information in order to respond to specific tasks. Through their studies, students can expect to achieve greater fluency, accuracy, and confidence in the target language. Through external examinations in speaking, reading, essay writing, and direct writing using the target language texts, students can earn an A-Level credit towards the Advanced International Certificate of Education (AICE) Diploma and advanced placement credit.

Schools offering course: 1, 4

INTERNATIONAL BACCALAUREATE PROGRAM

IB MYP FRENCH II (511220)

IB MYP GERMAN II (520720)

IB MYP SPANISH II (550720)

Grades: 9-10

Prerequisite: French I, German I, and Spanish I, (“C+” or better recommended) or equivalent and teacher recommendation

Credit: 1

This course is part of the IB sequence to prepare students for completion of the IB Program and the external exam in level V. Students will be able to: use French, German or Spanish effectively as a means of practical communication; gain insight into the life and civilization of the communities where the language is spoken, and into the local and standard aspects of language; have positive attitudes towards speakers of other languages and an appreciation of, and empathy for, other cultures; and have a basis of communication skills necessary for future study in the IB Foreign Language strand of courses. The integration of the IB MYP Areas of Interaction and Assessment Criteria will be used as a means of broadening student experience, placing context, and helping students to develop attitudes and values based on knowledge and skills. This course will prepare students for the IB MYP French, German or Spanish III course.

Schools offering course: 2, 5

(Not offering IBMYP German II)

IB MYP FRENCH III (513255)

IB MYP GERMAN III (523250)

IB MYP SPANISH III (553255)

Grades: 9-10

Prerequisite: French II, German II, and Spanish II (“C+” or better recommended) or equivalent and teacher recommendation

Credit: 1

This course is part of the IB sequence to prepare students for completion of the IB Program and the external exam in level V. Students will be able to: use French, German or Spanish effectively as a means of practical communication; gain insight into the life and civilization of the communities where the language is spoken, and into the local and standard aspects of language; have positive attitudes towards speakers of other languages and an appreciation of, and empathy for, other cultures; and have a basis of communication skills necessary for future study in the IB Foreign Language strand of courses. The integration of the IB MYP Areas of Interaction and Assessment Criteria will be used as a means of broadening student experience, placing context, and helping students to develop attitudes and values based on knowledge and skills. This course will prepare students for the IB French, German or Spanish IV course.

Schools offering course: 2, 5

(Not offering IBMYP German II)

IB AB INITIO FRENCH I (512250)

IB AB INITIO SPANISH I (552250)

Grade: 11

Prerequisite: Student must have an “A” or “B” in the fourth or fifth year of another foreign language

Credit: 1

Students demonstrate, through the use of authentic materials, the skills of listening, speaking, reading, and writing in everyday situations in preparation for an International Baccalaureate exam at the end of AB Initio II. Students will be expected to master all the objectives of the Level I and II curriculum in a rigorous and accelerated manner.

Schools offering course: 2, 5

IB AB INITIO FRENCH II (513250)

IB AB INITIO SPANISH II (553250)

Grade: 12

Prerequisite: Successful completion of IB AB Initio French or Spanish I

Credit: 1

The emphasis for study continues on all four skills of communication: listening, speaking, reading, and writing. Students continue to master the essential elements and the development of advanced vocabulary to use language proficiently in everyday situations. This advanced course is designed to strengthen fluency and proficiency in oral and written French and Spanish and to prepare those students who will be taking the International Baccalaureate AB Initio Exam.

Schools offering course: 2, 5

IB FRENCH IV (514250)

IB GERMAN IV (524250)

IB SPANISH IV (554250)

Grades: 11-12

Prerequisite: Successful completion of IBMYP Level III with a C+ or better; can take in grade 10 if started sequence in middle school

Credit: 1

IB Foreign Language IV is designed to develop proficiency in highly motivated language students. Students will be expected to master all the objectives of the Level IV curriculum in a more rigorous and accelerated manner. The course seeks to develop all skills emphasizing language for communication, using authentic materials in preparation for the International Baccalaureate Language B Exam. An introduction to the International Baccalaureate Language B Program will be an integral part of this class.

Schools offering course: 2, 5

IB LATIN IV (534050)

Grades: 11-12

Prerequisite: Successful completion of Latin III

Credit: 1

IB Latin IV is the first in a two-year classical language course offered in the International Baccalaureate elective group. Students who have successfully completed Level III may enroll in their junior year. It is the aim of this course to prepare students to read and analyze original Latin texts through an accelerated and rigorous manner. In addition, students will develop an awareness and understanding of the Roman World and its contribution to modern culture.

School offering course: 2

IB FRENCH V (515250)
IB GERMAN V (525250)
IB SPANISH V (555250)

Grade: 12

Prerequisite: Successful completion of IB Level IV with a C or better

Credit: 1

This is an advanced level course designed to strengthen fluency and proficiency in both oral and written foreign languages and to prepare students for the International Baccalaureate Language B Exam. The student will be able to speak the language with sufficient accuracy to participate in formal and informal conversations with ease. The student will be able to appreciate, discuss and comment (orally and in writing) on various literary forms. The in-depth study of literary works, contemporary articles and the review of complex linguistic structures will substantiate the course. Compositions will be on literary and issue-oriented themes. Self-expression will be encouraged through individual and group activities, oral presentations, and writing assignments.

Schools offering course: 2, 5

(Not offering IBMYP German II)

IB LATIN V (535051)

Grade: 12

Prerequisite: Successful completion of IB Latin IV

Credit: 1

IB Latin V is the second in a two-year sequence that fulfills the Group VI elective requirement for the IB Diploma Programme. Students may enroll in this course during their junior or senior year after successful completion of IB Latin IV or demonstration of equivalent proficiency. Students will demonstrate advanced interpretive and analysis skills in working with Latin texts. Students will take the IB Latin V examination at the end of the course.

School offering course: 2

IB SPANISH A2 SL (551522)

Grades: 11-12

Prerequisite: IB Native Speakers of Spanish or equivalent

Credit: 1

This course is designed for native Spanish-speaking students at the high school level in the IB Program. It recognizes the natural skill of native speakers and emphasizes expansion and not replacement of the student's existing language. Students will use the language for purposes and situations involving sophisticated discussion, argument and debate. The course will tap the natural potential of native speakers to fill the gap of skill acquisition, enhance natural oral and aural skills, instill pride in a rich heritage, and allow students to succeed to their full potential. The course is based on the study of both language and literature.

Schools offering course: 2, 5

IB SPANISH A2 HL (556250)

Grades: 11-12

Prerequisite: IB Spanish A2 SL

Credit: 1

The IB Spanish for Fluent Speakers HL course is a two-year course of study which meets the requirements of the IB program. Students focus on the study of language and literature according to the prescribed IB guidelines. At the same time students further develop their creative and critical thinking abilities, increasing skills and knowledge necessary for them to be contributing world citizens and life-long learners. This course prepares students for the required Higher Level IB examination to be taken at the end of the senior year. Successful completion of this course and an additional Language A course qualified the student for the Bilingual IB Diploma.

Schools offering course: 2

GENERAL CROSS-CURRICULAR

GRADUATION REQUIREMENTS:

- Elective Credit

IB THEORY OF KNOWLEDGE (TOK) (151550)

Grade: 12

Prerequisite: IB diploma candidacy or at least four IB classes taken concurrently

Credit: 1

IB Theory of Knowledge is a course required for IB Diploma candidates. It 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 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 an internally assessed oral presentation

Schools offering course: 2, 5

AICE THINKING SKILLS (Advanced Subsidiary) (119740)

AICE Thinking Skills (A-level) (119745)

Grades: 11-12

Prerequisite: A grade of "B" or better in at least one Cambridge course and teacher recommendation

Credit: 1

AICE Thinking Skills is designed to develop general thinking processes and skills. Developing and improving these skills will strengthen the study of all subject areas, will help to insure success in post-secondary studies and will enhance job performance. Content includes applied arithmetic, evaluating evidence, evaluating and presenting an argument, elements of reasoning, and evaluation of reasoning. Successful completion of the end of course exam may be used toward an AICE certificate or an AICE diploma.

Schools offering course: 1, 4

LEADERSHIP SEMINAR (909120)

Grades: 10-12

Prerequisite: Application and interview

Credit: 1

Students will learn about the aspects of Leadership by looking at historical and modern examples. Planning and implementing school activities will allow the students the practical application of Leadership theory. Through the practice of planning, coordinating and implementing school wide activities, students will be exposed to a wide variety of leadership experiences. Each student enrolled in the course is assigned a position in which they are responsible for specific tasks that support the student body.

Schools offering course: 1, 3, 5, 10

GIFTED EDUCATION

GIFTED EDUCATION COURSES FULFILL THE FOLLOWING GRADUATION REQUIREMENTS:

- Elective Credit

GIFTED EDUCATION MULTI-DISCIPLINARY SEMINAR (GEMS) (011223)

Grade: 11

Prerequisite: Successful completion of the tenth grade gifted education seminar program

Credit: 1/2

This class explores different dimensions of the American experience to determine what constitutes the American identity. The class is multicultural and multidisciplinary, examining literature, history, science, customs, and visual and performing arts in the kaleidoscope of American culture.

School offering course: 3

GIFTED EDUCATION MULTI-DISCIPLINARY SEMINAR (GEMS) (011221)

Grade: 12

Prerequisite: Successful completion of the eleventh grade gifted education seminar program

Credit: 1/2

The multi-disciplinary seminar may replace the seminar program for identified gifted students in grade twelve. The strengths and limits of each academic discipline are explored in a seminar setting. The course allows students to examine interrelationships among differing concepts of knowledge.

Schools offering course: 3, 4, 7, 10

GIFTED EDUCATION MULTI-DISCIPLINARY SEMINAR (GEMS) (011220)

Grade: 12

Prerequisite: Successful completion of the eleventh grade gifted education seminar program

Credit: 1

The multi-disciplinary seminar may replace the seminar program for identified gifted students in grade twelve. The strengths and limits of each academic discipline are explored in a seminar setting. The course allows students to examine interrelationships among differing concepts of knowledge. The course includes a research component.

Schools offering course: 6, 8, 9

NOTE: In schools offering the International Baccalaureate Programme, the Theory of Knowledge (TOK) course can serve as the senior seminar course for identified gifted students. In schools offering the Cambridge Programme, AICE Thinking Skills can serve as the senior seminar for identified gifted students.

HEALTH AND PHYSICAL EDUCATION

GRADUATION REQUIREMENTS IN HEALTH AND PHYSICAL EDUCATION:

Advanced Studies Diploma: student must earn 2 credits completing HPE I and HPE II

Standard Diploma: student must earn 2 credits completing HPE I and HPE II

Modified Standard Diploma: student must earn 2 credits completing HPE I and HPE II

HEALTH AND PHYSICAL EDUCATION CAN ALSO FULFILL THE FOLLOWING GRADUATION REQUIREMENTS:

- HPE I and HPE II required
- Sequential Electives
- Elective Credit

COURSE	MEETS DIPLOMA REQUIREMENT FOR:	APPROVED SUBSTITUTE(S)
Health and Physical Education I	Advanced Studies Diploma Standard Diploma Modified Standard **	• None
Health and Physical Education II	Advanced Studies Diploma Standard** Diploma Modified Standard **	• None

Eligibility and participation in the Modified Standard Diploma program shall be determined by the student's Individual Education Program (IEP) team and the student, where appropriate, at any point after the student's 8th grade year. A student who has chosen the Modified Standard Diploma shall be allowed to pursue the Standard or Advanced Studies Diploma at any time throughout his/her high school career.

The following electives may not be used to meet the graduation requirement but can be used as Sequential or Elective credit.

- Prevention and Care of Athletic Injuries
- Advanced Prevention and Care of Athletic Injuries

REQUIRED COURSE SEQUENCE FOR PHYSICAL EDUCATION

HEALTH AND PHYSICAL EDUCATION I (7300)

IBMYP PE I (730050)

Grades: 9-12

Prerequisite: None

Credit: 1

Students will participate in classroom instruction and in individual and team activities designed to develop attitudes, knowledge, and skills necessary to maintain personal fitness for a lifetime. Fifty percent of the course focuses on classroom instruction in fitness, nutrition, mental health, the functioning body, family relationships, disease prevention and control, and substance abuse prevention. The curriculum for IBMYP physical education will incorporate the MYP five Areas of Interaction, strategies and criteria.

Schools offering course: All (IB is at schools 2, 5 only)

HEALTH, PHYSICAL EDUCATION AND CLASSROOM

DRIVER EDUCATION II (7405)

IBMYP HPE II (740550)

Grades: 9-12

Prerequisite: Successful completion of Health and Physical Education I

Credit: 1

Students continue to participate in classroom instruction and in individual and team activities designed to develop attitudes, knowledge, and skills

necessary to maintain personal fitness for a lifetime. Fifty percent of the course focuses on classroom instruction in family life education, first aid including CPR, and classroom driver education. Classroom driver education consists of a minimum of 36 periods of structured learning experiences aimed at developing safe and efficient drivers. Completion of driver education through private instruction does not exempt the student from completing all course objectives. The curriculum for IBMYP physical education will incorporate the MYP five Areas of Interaction, strategies and criteria.

Schools offering course: All (IB is at schools 2, 5 only)

ELECTIVE COURSE SEQUENCE FOR PHYSICAL EDUCATION

DRIVER EDUCATION (IN-CAR) (700520)

Grades: 10-12

Prerequisite: Learner's Permit and enrollment in or successful completion of Classroom Driver Education.

Students must complete a minimum of two hours behind the wheel experience prior to taking behind the wheel.

Beginning the Fall of 2005 Parents of students enrolling in In-Car Driver Education are required to attend a parent involvement meeting in order for the student to successfully meet all licensing requirements.

Credit: 0

School Number Code: 1:Brentsville • 2:Gar-Field • 3:Osborn Park • 4:Potomac • 5:Stonewall • 6:Woodbridge • 7:Hylton • 8:Forest Park • 9:Battlefield • 10:Freedom • 99: Virtual

In-Car Driver Education includes multi-car range and on-street instruction. The class is scheduled on an elective basis for 14 class periods and is provided during Health, Physical Education and Classroom Driver Education II, study hall, or if approved, after school hours. Upon completion of the three phases of the course and submission of the 45 hour driving log the student will be issued a Provisional Driver's license. This Provisional Driver's license is valid only after the student reaches the age of 16 and 3 months and after they have held a Virginia learner's permit for 9 months. All students should complete all requirements for ninth grade physical education before enrolling in the tenth grade Driver Education Program.

Schools offering course: All

PHYSICAL EDUCATION ASSISTANT (764000; 764020)

Grades: 11-12

Prerequisite: Successful completion of Health and Physical Education I and II with a "B" average or better and approval of the department chairperson and the teacher being assisted

Credit: 1/2

This course offers opportunities for further positive learning experiences for the student who is interested in pursuing a career in Health and Physical Education. Emphasis is placed on assisting in the instructional program. This course may be taken more than once for credit.

Schools offering course: 1, 2, 3, 4, 5, 6, 7, 8, 10

ADVANCED PHYSICAL EDUCATION/PERSONAL FITNESS (764023)

Grades: 11-12

Prerequisite: Successful completion of Health and Physical Education I and II with a "B" or better and/or recommendation from the Department Chair

Credit: 1

Advanced Physical Education/Wellness places emphasis on why exercise and fitness are important, what one's own fitness needs are, and how to attain and maintain personal fitness for a lifetime. Additional emphasis is placed on the five health-related components of fitness including cardiovascular fitness, muscular strength and endurance, flexibility, and body fat control. Individual student fitness levels are assessed. Instruction includes emphasis on health risk factors related to lifestyles and how nutrition affects wellness. The course may include classroom instruction as well as physical activity. This course may be taken more than once for credit.

Schools offering course: All

ADVANCED PHYSICAL EDUCATION/WEIGHT TRAINING

Emphasis on weight training and conditioning (765000)

Grades: 11-12

Prerequisite: Successful completion of Health and Physical Education I and II with a "B" or better and recommendation from the Department Chair

Credit: 1

This Advanced Physical Education/Wellness section places emphasis on weight training and conditioning. The student will understand how and why weight training and conditioning benefits the student's ability to perform athletically. The student will learn to assess one's own fitness needs and how to attain and maintain personal fitness for a lifetime. Additional emphasis is placed on the five health-related components of fitness including cardiovascular fitness, muscular strength and endurance, flexibility, and body fat control. Individual student fitness levels will be

assessed and the students will formulate personal goals and develop individual fitness programs. Instruction includes emphasis on health risk factors related to lifestyles and how nutrition affects wellness. This course may be taken more than once for credit.

Schools offering course: All

PREVENTION AND CARE OF ATHLETIC INJURIES I (766020)

Grades: 11-12 (10th grade with permission from instructor)

Prerequisite: Successful completion of Health and Physical Education I and II, and/or teacher recommendation

Credit: 1

These courses, taught by the school's certified athletic trainer, place emphasis on recognition, prevention, and treatment of common sports injuries. In addition, students learn anatomy and physiology of the human body, first aid, nutrition, and career opportunities. Students will be required to participate in 9 hours per 9-week grading period of after school practicum for successful completion. Completion of both Athletic Training courses may be taken as part of the sequencing requirement for graduation.

Schools offering course: All

PREVENTION AND CARE OF ATHLETIC INJURIES II (766120)

Grades: 11-12

Prerequisite: Successful completion of Prevention and Care of Athletic Injuries I with at least a "B", and teacher recommendation

Credit: 1

These courses, taught by the school's certified athletic trainer, place emphasis on recognition, prevention, and treatment of common sports injuries. In addition, to classroom instruction, students in this course will be required to complete 75 hours of practical ATC work with one team during the school year. Completion of both Athletic Training courses will fulfill the course sequencing requirement for graduation.

Schools offering course: All

ADVANCED PREVENTION AND CARE OF ATHLETIC INJURIES (766220)

Grades 11-12

Prerequisite: Successful participation in Prevention and Care of Athletic Injuries

Credit: 1/2

This course is offered as an extension of Athletic Training I and II. This partial credit course requires all of its instructional time after normal school hours in an athletic training practicum. A minimum of 100 hours must be completed throughout the year at a minimum of 4 hours each week and 25 per quarter. The student will be required to work one semester with players and coaches, putting to practical use the skills of prevention, evaluation and management of athletic injuries. Interns will improve athletic training skill level as well as the communication and personal skills necessary to be an athletic trainer.

Schools offering course: All



JROTC

JROTC CAN FULFILL THE FOLLOWING GRADUATION REQUIREMENTS:

- Sequential Electives
- Elective Credit

NAVY JROTC COURSE SEQUENCE

NAVAL SCIENCE I (NJROTC) (791302)

Grades: 9-11

Prerequisite: Student must be able to participate in physical education program

Credit: 1

This introductory course is designed for all students in their first year of Naval Science. Units are taught in military customs and courtesies, leadership, government, geography, naval history, introductory navigation, and basic seamanship. Students are inspected in designated Naval Cadet uniform once a week, participate in military drill, and attend field trips as well as training visits to military installations, ships, and museums. Extracurricular activities include Drill Team/Color Guard, Air Rifle Team, Academic Team, and active participation in community events and in the unit organization. Students wishing to enroll in JROTC programs must meet program entry requirements.

Schools offering course: 3, 4

NAVAL SCIENCE II (NJROTC) (791611)

Grades: 10-12

Prerequisite: Student must be able to participate in physical education program. Successful completion of NJROTC I

Credit: 1

This course includes units of study in leadership, maritime history, maritime geography, oceanography, meteorology, astronomy and physical science. Students are inspected in a designated Naval Cadet uniform once a week, participate in military drill, and also attend field trips and training visits. Second-year cadets begin to assume leadership positions in the unit and in various extracurricular activities. Students wishing to enroll in JROTC programs must meet program entry requirements.

Schools offering course: 3, 4

NAVAL SCIENCE III (NJROTC) (791811)

Grades: 11-12

Prerequisite: Student must be able to participate in physical education program. Successful completion of NJROTC II

Credit: 1

This third-year course includes units of study in leadership, naval knowledge and naval skills. Naval knowledge includes the study of Sea Power and National Security, Naval Operations and support functions, military law, and international law and the sea. Naval Skills includes study of ship construction and damage control, shipboard organization and watch standing, marine navigation, rules of the road and maneuvering board, and naval weapons and aircraft. Students assume increasing positions of leadership and participate in the full range of activities. They also teach new cadets in customs and courtesies, rules and regulations, proper wearing of the uniform and drill. Students wishing to enroll in JROTC programs must meet program entry requirements.

Schools offering course: 3, 4

NAVAL SCIENCE IV (NJROTC) (791911)

Grades: 11-12

Prerequisite: Student must be able to participate in physical education program. Successful completion of NJROTC III

Credit: 1

This fourth-year course includes units of study in leadership and the graded practical application of previous course work and experience in planning and executing organizational functions. Students organize and lead the company of cadets in all activities. Students wishing to enroll in JROTC programs must meet program entry requirements.

Schools offering course: 3, 4

NAVAL SCIENCE - CHALLENGE COURSE (NJROTC) (793411)

Grades: 11-12

Prerequisite: Successful completion of Naval Science III or Naval Science IV with a grade of "B" or better and instructor recommendation

Credit: 1

This fifth-level course includes units of study in leadership and skill application. All students desiring to take this course must demonstrate their swimming ability by swimming 50 yards and treading water for five minutes. Students must also pass the NJROTC physical readiness test and participate in physical training each day. Students wishing to enroll in JROTC programs must meet program entry requirements.

School offering course: 4

ARMY JROTC COURSE SEQUENCE

MILITARY SCIENCE I (AJROTC) (791310)

Grades: 9-12

Prerequisite: Student must be able to participate in physical education program

Credit: 1

This introductory course is designed for all students in their first year of Military Science. Units are taught in American Citizenship, Techniques of Communication, Leadership, Presidential Physical Fitness, Basic Drill and Ceremony, First Aid and Your Health, Drug Abuse Prevention, Map Reading, Military History, Customs and Courtesies of the Army, Basic Leadership Skills, and Life Management Skills. Students are inspected in a designated Army cadet uniform once a week and participate in military drill and field trips. Co-curricular activities include Drill/Color Guard, Air Rifle Team, Raider Team, and active participation in community events/service projects and in unit social activities such as a dining-in and military ball. Students wishing to enroll in JROTC programs must meet program entry requirements.

School offering course: 6

MILITARY SCIENCE II (AJROTC) (791610)

Grades: 10-12

Prerequisite: Student must be able to participate in

completed Military Science I or equal level in another JROTC program

Credit: 1

This second-year course includes units of study in Techniques of Communication, Leadership, Presidential Physical Fitness, Drill and Ceremony, First Aid and Hygiene, Drug Abuse Prevention, Map Reading, American Military History, Career Opportunities, Role of the U.S. Army, and Technology Awareness. Students are inspected in their designated Army Cadet uniform once a week, participate in military drill, and also attend field trips. Second-year cadets begin to assume leadership positions in the unit and in various extracurricular activities as listed in Military Science I. Students wishing to enroll in JROTC programs must meet program entry requirements.

School offering course: 6

MILITARY SCIENCE III (AJROTC) (791810)

Grades: 11-12

Prerequisite: Student must be able to participate in physical education program and must have successfully completed Military Science I and II

Credit: 1

This third-year course includes study in Techniques of Communication, Leadership, Presidential Physical Fitness, Drill and Ceremony, First Aid, Drug Abuse Prevention, Map Reading, American History, Citizenship, Career Opportunities, Role of the U.S. Army, Technology Awareness, and Motivational Programs. Students assume increasing positions of leadership and participate in the full range of activities. Students also teach new cadets in customs and courtesies, rules and regulations, proper wearing of the Army Cadet uniform, and drill. Students wishing to enroll in JROTC programs must meet program entry requirements.

School offering course: 6

MILITARY SCIENCE IV (AJROTC) (791910)

Grade: 12

Prerequisite: Student must be able to participate in physical education program and must have successfully completed Military Science I, II, and III

Credit: 1

This fourth-year course includes units of study in leadership and the graded practical application of previous course work and experience in planning and executing organizational functions. Students organize and lead the Cadet Corps in all activities. The Cadets Corps of senior students are encouraged and are self motivated to display leadership potential and the ability to live and work cooperatively with others through the effective understanding and application of the leadership traits, principles, styles, and the Army core values. Senior students have a goal to be able to critically analyze quality leadership traits; and use the application of effective management techniques for planning and decision making/problem solving processes (as well as the ethical decision making process) and supervision in staff and command/leadership positions. Students wishing to enroll in JROTC programs must meet program entry requirements.

School offering course: 6

MARINE JROTC COURSE SEQUENCE

LEADERSHIP EDUCATION I (MCJROTC) (791312)

Grades: 9-11

Prerequisite: Student must be able to participate in physical education program

Credit: 1

The course of instruction is a combined program of classroom instruction and practical application designed to emphasize leadership education, citizenship, self-discipline, and character development. Basic training in leadership tenets, physical fitness, health, drill and ceremonies, military customs and courtesies, general military subjects, grooming standards, uniform wear and care and military organization are taught as part of the cadets' orientation to the Marine Corps and as a means to develop leadership qualities taught in class. Cadets are expected to wear designated Marine Corps uniforms on a weekly basis, and adhere to appropriate grooming standards. Extracurricular activities include Drill Team/Color Guard, orientation trips, community service projects, and social events. The first year also gives the new cadets exposure to personal growth and responsibility, and establishes a foundation of military structure and tradition. Students wishing to enroll in JROTC programs must meet program entry requirements.

School offering course: 2

LEADERSHIP EDUCATION II (MCJROTC) (791612)

Grades: 10-12

Prerequisite: Successful completion of Leadership Education I, and student must be able to participate in physical education program.

Credit: 1

This course builds upon knowledge and experience attained during Leadership Education I. The course continues to stress classroom instruction and practical application designed to emphasize leadership education, citizenship, personal growth and responsibility, self-discipline, character development, and future career considerations. Training in leadership, physical fitness, drill and ceremonies, military customs and courtesies, general military subjects, and military history are taught as part of the cadets' further orientation to the Marine Corps and as a means to develop leadership qualities taught in class. Cadets are expected to wear designated Marine Corps uniforms on a weekly basis, adhere to appropriate grooming standards, and perform leadership roles within the MCJROTC cadet organization. Extracurricular activities include Drill Team/Color Guard, orientation trips, community service projects, and social events. Students wishing to enroll in JROTC programs must meet program entry requirements.

School offering course: 2

LEADERSHIP EDUCATION III (MCJROTC) (791812)

Grades: 11-12

Prerequisite: Successful completion of Leadership Education I and II, and student must be able to participate in physical education program.

Credit: 1

This course builds upon the knowledge and experience attained during Leadership Education I and II. The course continues to stress classroom instruction and practical application designed to emphasize leadership education, citizenship, personal growth and responsibility, self-discipline, and character development. Training in leadership, physical fitness, drill and ceremonies, military customs and courtesies, general military subjects, and military history are taught as part of the cadets' further orientation to the Marine Corps. During this year, there is an increased emphasis on the consideration and exploration of post high school educational and career opportunities. Cadets are expected to wear designated Marine Corps uniforms on a weekly basis, adhere to appropriate grooming standards, and perform leadership roles within the MCJROTC cadet organization. Extracurricular activities include Drill Team/Color Guard, orientation trips, community service projects, and social events. Students wishing to enroll in JROTC programs must meet program entry requirements.

School offering course: 2

LEADERSHIP EDUCATION IV (MCJROTC) (791912)

Grade: 11-12

Prerequisite: Successful completion of Leadership Education I, II, and III, and student must be able to participate in physical education program.

Credit: 1

The course allows senior cadets the opportunity to serve as both a training facilitator for the MCJROTC instructional staff and as a mentor for junior cadets. Senior cadets are expected to display positive attitudes, requisite leadership ability, and perform in leadership roles within the MCJROTC cadet organization. Senior cadets are assigned to Leadership Education I, II, or III classes to provide leadership, serve as role models, conduct training, and mentor junior cadets as a means to enhance their leadership education and prepare them for a career after high school. Cadets are expected to wear designated Marine Corps uniforms on a weekly basis, adhere to appropriate grooming standards, and perform leadership roles within the MCJROTC cadet organization. Extracurricular activities include Drill Team/Color Guard, orientation trips, community service projects, and social events. Students wishing to enroll in JROTC programs must meet program entry requirements.

School offering course: 2

AIR FORCE JROTC COURSE SEQUENCE

*A student may apply to receive college credit for the noted courses. The instructor for each course will provide the application instructions. Upon successful completions and approval from the senior instructor, students will receive college credit from the University of Colorado that can be accepted upon entrance to any university.

***AEROSPACE SCIENCE AND LEADERSHIP I (AFJROTC) (791304)**

Grades: 9-11

Prerequisite: Student must be able to participate in physical education program

Credit: 1

This introductory course is designed for all students in their first year of Air Force JROTC. Units taught include the heritage of flight, development of air power, contemporary aviation, the aerospace environment, human requirements of flight, aerospace vehicles, principles of aircraft flight and navigation, the space environment, space programs, space technology, rocketry, propulsion, and the aerospace industry. Leadership studies include Air Force customs and courtesies, cadet corps activities, study habits, time management, communication skills, and leadership and management studies. Extracurricular activities include Drill Team/Color Guard. Cadets also participate in parades, summer leadership schools, drill team competitions, military balls, honorary academic groups, and other community activities. Students wishing to enroll in JROTC programs must meet program entry requirements.

Schools offering course: 5, 7, 9, 10

***AEROSPACE SCIENCE AND LEADERSHIP II (AFJROTC) (791604)**

Grades: 10-12

Prerequisite: Student must be able to participate in physical education program. Successful completion of AFJROTC I

Credit: 1

This course includes units of study in The Aerospace Environment, Human Requirements of Flight, Principles of Aircraft Flight History, and Principles of Navigation. Students are inspected in a designated Air Force cadet uniform,

participate in military drill, and also attend field trips and training visits. Second-year cadets begin to learn effective communication skills, understanding individual and group behavior, and practice basic leadership concepts. Students wishing to enroll in JROTC programs must meet program entry requirements.

Schools offering course: 5, 7, 9, 10

***AEROSPACE SCIENCE AND LEADERSHIP III (AFJROTC) (791804)**

Grades: 11-12

Prerequisite: Student must be able to participate in physical education program. Successful completion of AFJROTC I and II

Credit: 1

This third-year course includes units of study in Orbits and Trajectories, Spacecraft and Launch Vehicles, and continued practicing of Basic Leadership Concepts. Students assume increasing positions of leadership and participate in the full range of activities. Cadets will begin to learn goal setting and begin to develop skills related to preparing for future careers. All extracurricular activities (Drill Team/Color Guard, parades, competitions, honorary groups and community service) apply. Students wishing to enroll in JROTC programs must meet program entry requirements.

Schools offering course: 5, 7, 9, 10

AEROSPACE SCIENCE AND LEADERSHIP IV (AFJROTC) (719904)

Grades: 11-12

Prerequisite: Student must be able to participate in physical education program. Successful completion of AFJROTC I-III

Credit: 1

This fourth-year course includes continued instruction in flight through the Honors Ground Program. Other units of study are offered in leadership through management of cadet corps, and practicing management techniques, decision making, management functions for themselves and others. All extracurricular activities (Drill Team/Color Guard, parades, competitions, military balls, honorary groups and community service) apply. Students organize and lead the company of cadets in all activities. Students wishing to enroll in JROTC programs must meet program entry requirements.

Schools offering course: 5, 7, 9, 10

AVIATION HONORS GROUND SCHOOL PROGRAM (AFJROTC) (792004)

Grades: 11-12

Prerequisite: Student must have written approval from the SASI/ASI and successful completion of two years of AFJROTC coursework and maintained a grade of C or better, Course completion must include The Science of Flight

Credit: 1

This elective course provides an academically challenging course for qualified students. Instruction will continue to provide flight training through the Honors Ground Program. Upon completion of this course, students will be prepared to take and pass the Federal Aviation Administration written exam. This course is offered as an Honors level course and offers a weighted credit.

Schools offering course: 9

MATHEMATICS

GRADUATION REQUIREMENTS:

Advanced Studies Diploma: A student must earn 4 math credits at or above the algebra level **including Algebra II** with at least **two** being verified by passing the related SOL Test.

Standard Diploma: A student must earn 3 math credits at or above the algebra level with at least **one** being verified by passing the related SOL Test.

Modified Standard Diploma: A student is required to earn 3 math credits including content from algebra, geometry, personal finance or higher and meet a numeracy requirement. To meet the numeracy requirement, the student must pass the eighth grade math SOL or an end-of-course mathematics SOL test.

Courses that meet these requirements are listed in the chart below. All courses earn one credit unless otherwise noted. Course descriptions follow this page. Prerequisites are listed in the descriptions.

Courses indicated by a “**V**” have an end-of-course SOL test and offer the possibility of a verified unit of credit.

Courses indicated by a “**W**” offer the possibility of a weighted credit if the student completes the required external assessment of the course and makes at least a “**C**” in the course. Those indicated by “**0.5W**” offer the possibility of a 0.5 weighted credit with a “**B**” or better in the course

STANDARD COURSE	MEETS DIPLOMA REQUIREMENTS FOR:	APPROVED SUBSTITUTES
Algebra I (V)	Advanced Studies Standard Modified Standard	<ul style="list-style-type: none"> Algebra I, Part 1 and Part 2 (V) (two credits over two years) IBMYP Algebra (V)
Geometry (V)	Advanced Studies Standard Modified Standard	<ul style="list-style-type: none"> Pre-AP Geometry (V) IBMYP Geometry (V) IGCSE Geometry (V)
Algebra II (V)	Advanced Studies Standard Modified Standard	<ul style="list-style-type: none"> Pre-AP Algebra II/Trigonometry (V, 0.5W) IBMYP Algebra II/Trigonometry (V, 0.5W) IGCSE Algebra II/Trigonometry (V, 0.5W)
Functions/Trigonometry (W) or Functions/Analytic Geometry (W)	Advanced Studies	<ul style="list-style-type: none"> IB Mathematical Studies SL (W) IB Mathematics SL I (W), IB Mathematics HL I (W) AICE Mathematics I (W)
AP Calculus AB (W) or AP Calculus BC (W)	Advanced Studies	<ul style="list-style-type: none"> IB Mathematics SL II (W), IB Mathematics HL II (W) AICE Mathematics II (W)
OTHER COURSES STUDENTS MAY TAKE FOR MATHEMATICS OR ELECTIVE CREDIT		
Advanced Mathematics	Advanced Studies	
Trigonometry (1/2 credit)	Advanced Studies	
Discrete Mathematics (1/2 credit)	Advanced Studies	
Probability / Statistics (1/2 credit)	Advanced Studies	
Computer Mathematics	Advanced Studies	<ul style="list-style-type: none"> Advanced Computer Mathematics (0.5W) Computer Science
AP Statistics (W)	Advanced Studies	
AP Computer Science A (W) or AP Computer Science AB (W)	Advanced Studies	<ul style="list-style-type: none"> IB Computer Science SL (W), IB Computer Science HL (W) AICE Computing (W)
Advanced Computer Studies	Advanced Studies	
Algebra, Functions, and Data Analysis	Advanced Studies, Standard & Modified Standard	
Personal Living and Finance	Modified Standard	
Math Review Concepts of Algebra & Geometry	Remediation Courses Elective Credit Only Not for Math Credit	
<p>** Eligibility and participation in the Modified Standard Diploma program shall be determined by the student's Individual Education Program (IEP) team and the student, where appropriate, at any point after the student's 8th grade year. A student who has chosen the Modified Standard Diploma shall be allowed to pursue the Standard or Advanced Studies Diploma at any time throughout his/her high school career.</p>		

STANDARD COURSES

ALGEBRA I, PART 1 (3131)

Grades: 9-10

Prerequisite: Successful completion of Pre-Algebra, teacher recommendation, passing score on 8th grade Math SOL

Credit: 1

Algebra I, Part 1 covers approximately one-half of the Algebra I curriculum and employs an interactive, hands-on approach to teaching algebra concepts. The course uses the graphing calculator and real-world and workplace applications as the platform for learning algebra. Emphasis is placed on making connections in algebra to arithmetic, geometry, and statistics. The course is designed to meet the needs of the contextual learner and those who may have difficulty covering the complete Algebra I curriculum in a single year.

Schools offering course: All

ALGEBRA I, PART 2 (3147)

Grades: 10-11

Prerequisite: Successful completion of Algebra I, Part 1

Credit: 1

Algebra I, Part 2 employs an interactive, hands-on approach to teaching algebra concepts. The course uses the graphing calculator and real-world and workplace applications as the platform for learning algebra. Emphasis is placed on making connections in algebra to arithmetic, geometry, and statistics. The course is designed to meet the needs of the contextual learner and the student who needs additional time to complete the Algebra I curriculum. Students must take the Virginia SOL test for Algebra I.

Students must take the Virginia SOL test for Algebra I.

Schools offering course: 1, 2, 3, 4, 5, 6, 7, 8, 9

ALGEBRA I (3130)

Grades: 8-9

Prerequisite: "C" or better in Pre-Algebra, passing score on 8th grade Math SOL

Credit: 1

This course extends students' knowledge and understanding of the real number system and its properties through the study of variables, expressions, equations, inequalities, and analysis of data derived from real-world phenomena. Emphasis is placed on making connections in algebra to arithmetic, geometry, and statistics. Critical thinking skills, calculator and computer technologies are essential components in this course. **Students must take the Virginia SOL test for Algebra I.**

Schools offering course: All

GEOMETRY (3143)

Grades: 9-10

Prerequisite: Successful completion of Algebra I or Algebra I, Part 2 (IAG II)

Credit: 1

Students investigate properties of triangles, quadrilaterals, polygons, circles, and solids using inductive and deductive reasoning. Conjectures about properties and relationships are developed inductively and then verified deductively. Transformations, algebra, and technologies are used as tools to solve geometry problems. **Students must take the Virginia SOL test for Geometry.**

Schools offering course: All

ALGEBRA II (313500)

Grades: 10-12

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

Credit: 1

Algebra II expands and clarifies concepts introduced in Algebra I. New topics include sequence and series, polynomial functions, logarithms, quadratic systems, and conics. Emphasis is on algebraic processes and their use in problem solving. The course will enhance the student's understanding of the function concept and deductive reasoning in algebra. Students must take the Virginia SOL test for Algebra II. Algebra II is required for an Advanced Studies Diploma.

Schools offering course: All

ADVANCED PLACEMENT PROGRAM COURSES

PRE-AP GEOMETRY (314300)

Grade: 9

Prerequisite: Successful completion of Algebra I with a "B" or better and teacher recommendation, passing score on Algebra I SOL

Credit: 1

Advanced Geometry is an accelerated program of study for grade 9 students. The course includes all objectives in the PWCS Geometry curriculum and the Virginia Standards of Learning. Additional topics in trigonometry and transformational graphing are included. Calculator and computer technologies are used throughout the course. **Students must take the Virginia SOL test for Geometry.**

Schools offering course: 3, 6, 7, 8, 9, 10

PRE-AP ALGEBRA II/TRIGONOMETRY (313730)

Grades: 10-11

Prerequisite: A grade of "B" or better in Algebra I and Geometry and teacher recommendation

Credit: 1

Algebra II/Trigonometry is taught at an accelerated pace. The content of the course is the same as the full year of Algebra II (3135) and the semester Trigonometry class (3150). **Students must take the Virginia SOL test for Algebra II. Algebra II is required for an Advanced Studies Diploma.**

Schools offering course: 3, 6, 7, 8, 9, 10

FUNCTIONS/TRIGONOMETRY (316200)

Grades: 11-12

Prerequisite: A grade of "B" or better in Algebra II or Algebra II/Trigonometry and teacher recommendation

Credit: 1

Functions/Trigonometry is a one-year preparatory course for Advanced Placement Calculus AB. Basic course content is comprised of the algebra of real numbers, complex numbers and polynomials; exponential, polynomial and logarithmic functions; circular functions and trigonometry.

Schools offering course: 1, 3, 4, 6, 7, 8, 9, 10

FUNCTIONS/ANALYTIC GEOMETRY (3176)

Grades: 11-12

Prerequisite: *Algebra II / Trigonometry and teacher recommendation*

Credit: 1

Functions/Analytic Geometry is a one-year preparatory course for Advanced Placement Calculus BC. The course content is comprised of the algebra of real numbers, vectors, complex numbers and polynomials; exponential, polynomial and logarithmic functions; and analytic geometry.

Schools offering course: 3, 4, 6, 7, 8, 9, 10

ADVANCED PLACEMENT STATISTICS (3192)

Grades: 11-12

Prerequisite: *Successful completion of Algebra II and teacher recommendation*

Credit: 1

The Advanced Placement Statistics 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, anticipating patterns
- Planning a Study: deciding what and how to measure
- Producing models using probability theory and simulation,
- Inference: drawing conclusions from sample data.

Students who successfully complete the course and the Advanced Placement Statistics Examination may receive credit for a one-semester introductory college statistics course.

Schools offering course: 1, 2, 3, 4, 5, 6, 7, 8, 9

ADVANCED PLACEMENT CALCULUS AB (317720)

Grade: 12

Prerequisite: *Successful completion of Functions/Trigonometry or Functions/Analytic Geometry and teacher recommendation*

Credit: 1

Calculus AB is an Advanced Placement course. The course consists of a review and extension of the study of analytic geometry and functions with emphasis on a sound understanding of the theory of elementary functions, limits, differential and integral calculus as well as applications of calculus. A student may earn one semester of college credit based on scores on the Advanced Placement Examination of the College Entrance Board. Graphing calculator required.

Schools offering course: 1, 3, 4, 6, 7, 8, 9, 10

ADVANCED PLACEMENT CALCULUS BC (317760)

Grade: 12

Prerequisite: *Successful completion of Functions/Analytic Geometry and teacher recommendation*

Credit: 1

Calculus BC is an Advanced Placement course. Its calculus content is synonymous with Calculus AB, but includes additional topics, including the calculus of parametric, polar, and vector functions, as well as polynomial approximations and series. This course prepares a student for the Advanced Placement BC Calculus Examination. Students may earn two semesters of college credit. Graphing calculator required.

Schools offering course: 3, 6, 7, 8, 9, 10

CAMBRIDGE PROGRAMME COURSES

IGCSE GEOMETRY (314340)

Grades: 9-10

Prerequisite: *A grade of "B" or better in Algebra I and teacher recommendation*

Credit: 1

IGCSE Geometry includes all objectives in the PWCS Geometry curriculum and the Virginia Standards of Learning with a strong relation to algebraic concepts such as functions and linear programming. Emphasis will be placed on recognizing, analyzing, and interpreting geometric terms, shapes, and properties. Additional topics in trigonometry, vectors, and transformations are included. Alternative activities such as projects, investigations, oral and written communication, and cooperative learning activities are a regular part of this course. Assessment will include an external student examination and course work evaluation by the teacher.

Students must take the Virginia SOL test for Geometry.

Schools offering course: 1, 4

IGCSE ALGEBRA II/TRIGONOMETRY (313745)

Grades: 10-11

Prerequisite: *A grade of "B" or better in Algebra I and IGCSE Geometry and teacher recommendation*

Credit: 1

IGCSE Algebra II/Trigonometry is an accelerated course including all objectives in the Algebra II curriculum and Trigonometry curriculum as stated in the Virginia Standards of Learning. Further topics include binomial expansions, vectors in two dimensions, parametric equations, differentiation, and integration. Assessment includes an external student examination and course work evaluations by the teacher. **Students must take the Virginia SOL test for Algebra II. Algebra II is required for an Advanced Studies Diploma.**

Schools offering course: 1, 4

AICE MATHEMATICS I (317640)

Grades: 11-12

Prerequisite: *A grade of "B" or better in IGCSE Algebra II/Trigonometry and teacher recommendation*

Credit: 1

AICE Mathematics I is designed to provide accelerated students with a strong foundation in pre-calculus concepts. They will develop an understanding of mathematical principles and an appreciation of mathematics as a logical and coherent subject. The international curriculum includes an in-depth study of vectors, logarithmic and exponential functions with an introduction to differentiation and integration. Students will acquire the mathematical background necessary for further study at the AICE Mathematics II and Advanced Placement BC Calculus levels.

Schools offering course: 1, 4

AICE MATHEMATICS II (317740)

Grade: 12

Prerequisite: A grade of “B” or better in AICE Mathematics I and teacher recommendation

Credit: 1

AICE Mathematics II extends the knowledge base of AICE Mathematics I. The course follows a rigorous, international curriculum to include Advanced Placement Calculus BC topics. Further concepts and skills in mathematics are taught including the study of concepts, techniques and applications of calculus with derivatives, integrals, vectors, sequences and series. Students will increase their ability to analyze problems logically, identify and interpret relevant factors and, where necessary, select an appropriate mathematical method to solve a problem. They will be prepared to sit for external examinations leading to an Advanced International Certificate of Education Diploma and an Advanced Placement BC Calculus qualification.

Schools offering course: 1, 4

INTERNATIONAL BACCALAUREATE COURSES

IBMYP ALGEBRA I (313050)

Grades: 7-9

Prerequisite: Teacher recommendation and “B” or better in Pre-Algebra

Credit: 1

Algebra I includes all objectives in the PWCS Algebra I curriculum and the Virginia Standards of Learning. In addition, enrichment and extension topics such as linear programming, absolute value functions, and real-life math applications are emphasized. Critical thinking skills and use of graphing calculator technology are also important components in this course. Alternative assessments such as projects, oral and written communication and cooperative learning activities are a regular part of this course. **Students must take the Virginia SOL test for Algebra I.**

Schools offering course: 2, 5

IBMYP GEOMETRY (314350)

Grades: 8-10

Prerequisite: A grade of “B” or better in IBMYP Algebra I and teacher recommendation

Credit: 1

Geometry is an accelerated program of study for students interested in pursuing the IB level math courses. The course includes all objectives from the Geometry curriculum with particular emphasis on algebraic connections. Additional topics in trigonometry and transformational graphing are included and the graphing calculator is used throughout the course. **Students must take the Virginia SOL test for Geometry.**

Schools offering course: 2, 5

IBMYP ALGEBRA II (313551)

Grades 9-11

Prerequisite: A grade of “B” or better in IBMYP Algebra I and IBMYP Geometry, and teacher recommendation

Credit: 1

Algebra II is the pre-requisite for IB Math Studies and IB Mathematics SL I. The course incorporates and expands the knowledge from both IBMYP Algebra and Geometry. The course includes all objectives from the PWCS Algebra II curriculum with particular emphasis on the development and completion of projects emphasizing the areas of interaction of the Middle Years Program and internationalism. A graphing calculator is used throughout the course. As in all courses, students will acquire technical writing skills within the mathematics curriculum. **Students must take the Virginia SOL test for Algebra II. Algebra II is required for an Advanced Studies Diploma.**

Schools offering course: 2

IBMYP ALGEBRA II/TRIGONOMETRY (313755)

Grades: 10-11

Prerequisite: A grade of “B” or better in IBMYP Algebra I and IBMYP Geometry and teacher recommendation

Credit: 1

Algebra II/Trigonometry is an accelerated course including all objectives in the Algebra II curriculum and Trigonometry curriculum as stated in the Virginia Standards of Learning. This course is the prerequisite for IB Mathematics HL I. **Students must take the Virginia SOL test for Algebra II. Algebra II is required for an Advanced Studies Diploma.**

Schools offering course: 2, 5

IB MATHEMATICS SL I (319851)

Grades: 10-11

Prerequisite: Successful completion of IBMYP Algebra II / Trigonometry

Credit: 1

IB Mathematics SL I is the first year in a two-year mathematics course that fulfills the Group 5 requirement in the IB Diploma Program. The course is designed for strong math students who are preparing for studies in subjects such as chemistry, economics, psychology and business administration. The goal of this course is to provide students with a solid foundation of vectors, matrices, statistics, probability and pre-calculus topics. Students will use technology as a tool for learning and develop an awareness of global contributions to the field of mathematics sciences. Students wishing to study subjects such as physics, engineering and technology should take the Mathematics HL course.

Schools offering course: 2, 5

IB MATHEMATICS SL II (319852)

Grades: 11-12

Prerequisite: Successful completion of IB Mathematics SL I

Credit: 1

IB Mathematics SL II is the second year of the two-sequence in mathematics that meets the requirements of the IB Diploma Program. Students who have successfully completed IB Mathematics SL I may enroll in this course. This course builds on and extends the knowledge base of IB Mathematics SL I. IB Mathematics SL II is the study of concepts, techniques, and applications of calculus. Students in this course will complete two portfolio projects and will take the IB Mathematics SL examination.

Schools offering course: 2, 5

IB MATHEMATICAL STUDIES (SL) (319650)

Grade: 12

Prerequisite: *Successful completion of IBMYP Algebra II*

Credit: 1

IB Mathematical Studies (SL) is intended to provide a realistic mathematical course for students with varied backgrounds and abilities. The skills needed to cope with the mathematical demands of a technological society are developed but no great technical expertise is required. Students likely to need to use mathematics in the pursuit of a science or mathematics career are advised to consider IB Mathematics SL. A substantial piece of work in the form of a project is required for this course. Topics include sets, logic, probability and statistics, functions, simple sequences, linear programming, vectors, matrices, geometry, and trigonometry.

Schools offering course: 2, 5

IB MATHEMATICS HL I (319750)

Grade: 11

Prerequisite: *A grade of "B" or better in IBMYP Algebra II/ Trigonometry and teacher recommendation*

Credit: 1

IB Mathematics HL I is the first year in a two-year mathematics course that fulfills the Group 5 requirement in the IB Diploma Program. The course is designed for the strong math student whose next formal experience with mathematics will be college level courses in calculus, linear algebra, finite mathematical structures or probability and statistics. The goal of this course is to provide students with a strong foundation of pre-calculus concepts, techniques, and applications. Students will use technology as a tool for learning and develop an awareness of global contributions to the field of mathematics sciences.

Schools offering course: 2, 5

IB MATHEMATICS HL II (319752)

Grade: 12

Prerequisite: *A grade of "B" or better in IB Mathematics Higher Level I and teacher recommendation*

Credit: 1

IB Mathematics HL II is the second year of the two-year sequence in mathematics that meets the requirements of the IB Diploma Program. Students who have successfully completed IB Mathematics HL I may enroll in this course during their senior year. This course builds on and extends the knowledge base of IB Mathematics HL I. IB Mathematics HL II is the study of concepts, techniques, and applications of calculus including derivatives, integrals, vectors, sequences, and series. Students in this course will complete three portfolio projects and will take the IB Mathematics HL examination.

Schools offering course: 2, 5

MATHEMATICS ELECTIVES

ALGEBRA, FUNCTIONS, AND DATA ANALYSIS (313400)

Grades: 11-12

Prerequisite: *Algebra I and Geometry*

Credit: 1

This course is designed for students who have completed Algebra I and Geometry but need time to further develop algebraic and geometric concepts to ensure success in Algebra II. Students will model real world phenomena using algebra; analyze and represent algebraic relationships and functions using tables, equations, and graphs; and select and use appropriate statistical methods to analyze data.

School offering course: 1, 2, 3, 4, 6, 7, 9, 10

PERSONAL LIVING AND FINANCE (312001)

Grades: 10-12

Prerequisite: *Teacher recommendation*

Credit: 1 elective credit or 1 math credit for Modified Standard Diploma only

This course addresses the need for students to have the skills to manage personal finances and to make sound financial decisions. Students may earn one mathematics credit for the Modified Standard Diploma by successfully completing a Personal Living and Finance course. **The Personal Living and Finance course may not be used to satisfy the mathematics requirement for the Standard or Advanced Studies Diploma.**

Schools offering course: All

ADVANCED MATHEMATICS (316001)

Grades: 11-12

Prerequisite: *Successful completion of Algebra II*

Credit: 1

Advanced Mathematics extends both algebra and trigonometry topics. Emphasis is on functions and their inverses, equations and inequalities, graph theory, matrices, sequences and series, conic sections, and logarithms. Trigonometry topics include triangular and circular definitions of the trig functions, trig identities, and solutions of trig equations. This course is designed for students who do not plan to continue with math studies. It does not meet the prerequisite for Calculus AB or BC.

Schools offering course: All

TRIGONOMETRY (3150)

Grades: 11-12

Prerequisite: *Successful completion of Algebra II*

Credit: 1/2

This elective semester course provides a thorough treatment of trigonometry through the study of trigonometric definitions, applications, graphing, and solving trigonometric equations and inequalities. Emphasis is placed on using connections between right triangle ratios, trigonometric functions, and circular functions. Applications and modeling are included throughout the course of study. Students enrolled in trigonometry are assumed to have mastered those concepts outlined in the Algebra II standards.

Schools offering course: 4, 5

DISCRETE MATHEMATICS (3154)

Grades: 11-12

Prerequisite: *Successful completion of Algebra II*

Credit: 1/2

This elective mathematics course provides students with the opportunity to combine previously learned mathematics with selected concepts of recent mathematics to solve problems created by modern society. In this course, the main focus is problem solving in a discrete setting. Techniques that are not considered in the current traditional courses of algebra, geometry, and calculus will be utilized. As students solve problems, they will analyze and determine whether or not a solution exists (existence problems), investigate how many solutions exist (counting problems), and focus on finding the best solution (optimization problems).

Schools offering course: 1, 2, 4, 6, 7, 8, 9, 10

PROBABILITY AND STATISTICS (3190)

Grades: 11-12

Prerequisite: *Successful completion of Algebra II*

Credit: 1/2

The Probability and Statistics course includes theory of probability, description of statistical measurements, probability distributions and statistical inference. The course is designed for the student who plans to enter such fields as business, economics, education, psychology, sociology, medicine, etc., which require statistics for their effective pursuit. Successful completion of this course will be adequate preparation for the usual college courses in these fields. In addition, any student who is preparing for study in mathematics, physical sciences or engineering will eventually find a need for one or more courses in statistics. This course will provide the student the necessary fundamental background in probability and statistics.

Schools offering course: 1, 2, 4, 5, 6, 7, 8, 9, 10

COMPUTER ELECTIVES

COMPUTER MATHEMATICS (318400)

Grades: 9-12

Prerequisite: *Completed or currently enrolled in Geometry*

Credit: 1

The computer mathematics course is intended to provide students with experiences in using the computer/calculator to solve problems that can be set up as mathematical models. Programming concepts, problem-solving strategies, and mathematical applications are integrated throughout the course. This course is designed for students who want only one Computer course.

Schools offering course: 1, 2, 3, 4, 5, 6, 7, 8, 10

ADVANCED COMPUTER MATHEMATICS (318480)

Grades: 9-12

Prerequisite: *“B” or better in Algebra I and completed or currently enrolled in Geometry*

Credit: 1

The computer mathematics course is intended to provide students with experiences in using the computer/calculator to solve problems that can be set up as mathematical models. Programming concepts, problem-solving strategies, and mathematical applications are integrated throughout the course. The advanced course covers all topics in the regular Computer Math class as well as others. This course prepares students for Computer Science.

Schools offering course: 2, 3, 4, 8, 9

ADVANCED PLACEMENT COMPUTER SCIENCE A (318500)

Grades: 10-12

Prerequisite: *Successful completion of Geometry with a “B” or better and teacher recommendation*

Credit: 1

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. This course prepares a student for advanced placement in computer science by means of the Advanced Placement Examination Level A in Computer Science of the College Entrance Board. This course also serves as a prerequisite for Advanced Placement Computer Science AB.

Schools offering course: 1, 3, 4, 6, 7, 8, 9

ADVANCED PLACEMENT COMPUTER SCIENCE AB (318560)

Grades: 11-12

Prerequisite: *Successful completion of Algebra II and Advanced Placement Computer Science A, and teacher recommendation*

Credit: 1

Advanced Placement Computer Science AB covers all the topics of Computer Science A, as well as a more formal and a more in-depth study of algorithms, data structures, and data abstraction. Binary trees, recursive data structures and dynamically allocated structures are fundamental to Computer Science AB. The course prepares a student for advanced placement in computer science by means of a college placement examination or the Advanced Placement Examination Level AB in Computer Science of the College Entrance Board.

Schools offering course: 3, 6, 7, 8

AICE COMPUTING (318540)

Grades: 11-12

Prerequisite: *A grade of “B” or better in Advanced Placement Computer Science A and Algebra II, and teacher recommendation*

Credit: 1

AICE Computing provides students with a thorough knowledge of computing and computer science. Following an international curriculum, students will learn the nature and principles of information processing and the broad range of its applications, together with an advanced understanding of how information-processing systems are designed to suit particular applications. They will develop their ability to use computing techniques to solve problems through structured, practical experiences. This course prepares students for an Advanced International Certificate of Education Diploma and the Advanced Placement Computer Science AB qualification.

School offering course: 4

IBMYP COMPUTER SCIENCE (319950)

Grades: 10-12

Prerequisite: *Successful completion of Geometry with a “B” or higher in Algebra I with teacher recommendation*

Credit: 1

Computer Science is the first course of a two-year sequence. The focus of this course is to provide the student with a conceptual background in computer science. Topics include computer architecture, data representation, operating systems, computing systems in society, and

software development. Students will implement the major stages of software development using the high level language JAVA. Topics in JAVA will include loops, selections, and arrays.

School offering course: 2

IB COMPUTER SCIENCE (SL) (318551)

Grades: 11-12

Prerequisite: Successful completion of IBMYP Computer Science

IB Computer Science (SL) is the second year of a two-year curriculum. Arrays, records, and file manipulation are addressed and the software development process is implemented. System life cycle, network topologies, and computers in society are covered. Students are required to produce a dossier demonstrating the knowledge of the software development cycle and mastery of the basic constructs of the programming language. Students are also required to sit for the SL examination.

School offering course: 2

IB COMPUTER SCIENCE (HL) (318552)

Grades: 11-12

Prerequisite: Successful completion of IB Computer Science (SL)

Credit: 1

This course covers advanced topics in computer science. Advanced topics in software development include sorting and searching algorithms, dynamic data structures, stacks and queues, recursion, and algorithm evaluation. Additional topics in Boolean logic, data representation, and system life cycles will be taught. Students are required to produce a dossier and to take the IB Computer Science (HL) examination.

Schools offering course: 2, 5

ADVANCED COMPUTER STUDIES (319902)

Grades: 11-12

Prerequisite: Completed or concurrently enrolled in AP Computer Science AB

Credit: 1

This course is an introduction to high performance computational concepts utilizing telecommunication and informational technologies. This course will provide mechanisms for learner-centered, collaborative environments where the students and teacher will engage in dynamic modeling processes in a variety of areas, ranging from the sciences to the humanities. The course emphasizes real-world problems, hands-on activities, and discovery learning that will facilitate an environment for constructive learning. The students will be expected to complete a year-long research project.

Schools offering course: 4, 7, 8, 9

MATHEMATICS REMEDIATION COURSES

DO NOT EARN MATHEMATICS CREDIT

MATH REVIEW (3120)

Grades: 9-10

Prerequisite: Failed 8th grade Math SOL and failed Concepts of Algebra and Geometry or Pre-Algebra
Credit: 1 elective credit

This course is designed for students who need serious mathematics intervention in a small group setting. Basic math concepts such as place value and meanings of operations will be taught. Emphasis will be on developing understanding in areas of weakness. Upon successful completion of this course, the student will receive one elective credit.

Schools offering course: All

CONCEPTS OF ALGEBRA AND GEOMETRY (3113)

Grades: 9-10

Prerequisite: Failed 8th grade Math SOL and/or "D" or "F" in Pre-Algebra

Credit: 1 elective credit

This course is designed for students who failed the 8th grade Math SOL and need to further develop conceptual understanding and mastery of prerequisite skills necessary for success in Algebra I. Emphasis will be on mastering middle school objectives. Upon successful completion of this course, the student will receive one elective credit and should then continue with Algebra I, Part 1.

Schools offering course: All

SCIENCE

GRADUATION REQUIREMENTS IN SCIENCE:

Advanced Studies Diploma: student must earn 4 credits, from at least three different science disciplines, with 2 of them being verified by passing an SOL Test

Standard Diploma: student must earn 3 credits, from at least two different science disciplines with 1 being verified by passing an SOL Test beginning with students who enter grade nine in 2003-04

Modified Standard Diploma: student must earn 2 credits among Earth Science, Biology I, Active Physics and Chemistry, no verified credit required

****Note courses that meet these requirements in the chart below.** (Course descriptions follow this page.)

- Courses indicating a “**V**” have an end-of-year test and offer the **possibility** of a verified unit of credit.
- Courses indicating a “**W**” offer the **possibility** of weighted credit if the student passes the course with a “**C**” or better and completes the required external assessment of the course.

STANDARD COURSE	MEETS DIPLOMA REQUIREMENTS FOR:	APPROVED SUBSTITUTES
Earth Science	Standard Diploma Advanced Studies Diploma Modified Standard Diploma**	<ul style="list-style-type: none"> • Earth Science I, Advanced Earth Science I, IB MYP Earth Science – V • Oceanography • Astronomy • Physical Geology • AP Environmental Science V, W • IB Environmental Systems – V, W • AICE Environmental Management-V, W
Biology	Standard Diploma Advanced Studies Diploma Modified Standard Diploma**	<ul style="list-style-type: none"> • Biology I, Pre-AP Biology, IGCSE Biology, IB MYP Biology – V • Biology II Ecology • Biology II Survey • Biology II DNA Science/Biotechnology • AP Biology –W • Advanced Biology Laboratory – W • IB Biology I, II – W • AICE Biology - W
Chemistry	Standard Diploma Advanced Studies Diploma Modified Standard Diploma**	<ul style="list-style-type: none"> • Chemistry I, Pre-AP Chemistry, IGCSE Chemistry, IB MYP Chemistry – V • Chemistry II: Forensic Science and Chemical Analysis • AP Chemistry-W • Advanced Chemistry Laboratory – W • AICE Chemistry - W • IB Chemistry I, II - W
Physics	Standard Diploma Advanced Studies Diploma Modified Standard Diploma**	<ul style="list-style-type: none"> • Active Physics*, SOL-Based Physics, IGCSE Physics • AP Physics B- W • AP Physics C- W • Advanced Physics Laboratory – W • AICE Physics- W • IB Physics-W <p>*Active Physics is appropriate for the Modified or Standard Diploma only</p>

** Eligibility and participation in the Modified Standard Diploma program shall be determined by the student’s Individual Education Program (IEP) team and the student, where appropriate, at any point after the student’s 8th grade year. A student who has chosen the Modified Standard Diploma shall be allowed to pursue the Standard or Advanced Studies Diploma at any time throughout his/her high school career.

Elective courses that may not be used to meet the graduation requirements:

- Introduction to Forensic Science
- Introduction to Microbiology and Bacteriology
- Senior Independent Research Project
- Lab Assistance/Science Seminar

STANDARD FIRST-YEAR SCIENCE COURSES

EARTH SCIENCE I (421020)

Grades: 9-12

Prerequisite: None

Credit: 1

Earth Science is a laboratory-based course that provides students with an opportunity to explore the various physical phenomena that affect the earth. This course, which encompasses research design concepts, helps students become more aware of their surroundings through the study of astronomy, space science, meteorology, oceanography, physical geology, and environmental resources. Students are required to take the Earth Science I Standards of Learning assessment at the end of this course.

Schools offering course: All

BIOLOGY I (431020)

Grades: 9-12

Prerequisite: None

Credit: 1

Biology I is a laboratory-based course that includes the study of ecology, taxonomy, cellular chemistry, genetics, microbiology, and physiology. These areas are developed within a framework of principle biological theories with an emphasis on critical thinking and science process skills.

Note: This course may utilize animal dissection techniques as an instructional strategy. Students who conscientiously object to these exercises will participate in Division-approved activities that provide comparable learning experiences. Students are required to take the Biology I Standards of Learning assessment at the end of this course.

Schools offering course: All

CHEMISTRY I (441020)

Grades: 10-12

Prerequisite: Successful completion of one year of laboratory science and Algebra I with a grade of “C” or better

Co-requisite: Enrollment in Geometry

Credit: 1

Chemistry I emphasizes the qualitative and quantitative study of substances and the changes that occur in them. Students will investigate using various lab techniques and apply mathematical skills with the use of chemical quantities in problem solving. A survey of concepts includes atomic structure, chemical bonding, formulas and equations, stoichiometry, and other calculations based on molar relationships, phases of matter and the kinetic theory, acid-base theory, and simple organic chemistry. This course is intended for college preparatory and general education purposes. Students are required to take the Chemistry I Standards of Learning assessment at the end of this course.

Schools offering course: All

ACTIVE PHYSICS (451010)

Grades: 11-12 ONLY

Prerequisite: Successful completion of two laboratory sciences and passing but limited proficiency in Algebra I
Credit: 1

Active Physics is a course that adopts a thematic approach to physics through hands-on exploration of topics of intrinsic interest, including sports, medicine, transportation, communication, and home. This project-based course emphasizes the importance of physics concepts and places less importance on mathematics rigor, although mathematics is used to gain understanding of concepts. *Active Physics is limited to juniors and seniors who have achieved minimal proficiency in basic science coursework and require a third science to fulfill state science graduation requirements. Students who will be enrolled in Algebra II should NOT be in this course. The course is not an appropriate course for students who intend to pursue advanced study in science and for meeting the requirements for the advanced diploma.*

Schools offering course: 1, 3, 5, 6, 7, 8, 9

SOL-BASED PHYSICS (451020)

Grades: 10-12

Prerequisite: Successful completion of Algebra I and Geometry with a “C” or better

Co-requisite: Enrollment in Algebra II or higher

Credit: 1

SOL-Based Physics is a standard first year course that covers all topics as required by the Virginia Standards of Learning (SOL) for physics. Students will utilize mathematical calculations while applying scientific methodology to investigate Newtonian mechanics; fluids (hydrostatics and hydrodynamics); wave phenomena; electricity and magnetism; thermodynamics; and selected topics in modern physics. This course is fast paced, and students are expected to have strong study and mathematical skills. Students will be instructed on how to design, conduct, analyze, and interpret data and present results collected from investigation. Written, detailed laboratory reports are required.

Schools offering course: All

ADVANCED PLACEMENT COURSES

ADVANCED EARTH SCIENCE I (421000)

Grades: 9-12

Prerequisite: Completion of Grade 8 Science with a “B” or better and teacher recommendation

Credit: 1

Advanced Earth Science I is lab-based, with a curriculum designed to give students a foundation in earth science concepts as well as the opportunity to utilize principles of experimental design in laboratory inquiry and on a required student project. Advanced Earth Science I includes the study of geology, oceanography, meteorology, astronomy, and space science but with extensions to each curriculum objective. This course is open to interested students and may be required of students in specialty programs throughout the county. Students are required to take the Advanced Earth Science Standards of Learning assessment at the end of this course. Students are required to take the Earth Science Standards of Learning assessment at the end of this course.

Schools offering course: 3, 6, 8, 9, 10

PRE-AP BIOLOGY (431000)

Grades: 9-12

Prerequisite: Completion of grade 8 science with a “B” or better and teacher recommendation

Credit: 1

Pre-AP Biology is lab-based, with a curriculum designed to give students a foundation in biological concepts as well as the opportunity to utilize principles of experimental design in laboratory inquiry and on a required student project. Pre-AP Biology includes the same major areas of study as in Biology I but with extensions to each curriculum objective and associated specialty program. This course is open to interested students and may be required of students in specialty programs throughout the county. *Note: This course may utilize animal dissection techniques as an instructional strategy. Students who conscientiously object to these exercises will participate in Division-approved activities that provide comparable learning experiences.* Students are expected to take the Pre-AP Biology Standards of Learning assessment at the end of this course.

Schools offering course: 3, 6, 7, 8, 9, 10

ADVANCED PLACEMENT BIOLOGY (437020)

Grades: 11-12

Prerequisite: Completion of at least two laboratory sciences to include Biology I and Chemistry I with a grade of “B” or better in both courses and successful completion of Algebra and Geometry

Co-requisite: Advanced Biology Laboratory (431010) except at school 7 and 8 and Algebra II

Credit: 1

Advanced Placement Biology is designed to be the equivalent of a first year introduction college biology course. AP Biology is designed for students who have successfully completed foundation courses in biology and chemistry. This course aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. Primary emphasis of the course is on developing an understanding of concepts rather than on memorizing terms and technical details. Students are expected to take the Advanced Placement Biology examination in May. With a satisfactory score, students may be eligible to receive some credit for college-level biology.

Schools offering course: 3, 4, 6, 7, 9, 10, 99

ADVANCED BIOLOGY LABORATORY (437010)

Grades: 11-12

Prerequisite: Satisfactory completion of two laboratory courses from earth science, biology, chemistry, and/or physics

Co-requisite: Enrollment in Advanced Placement Biology or AICE Biology

Credit: 1

This course complements the AICE and AP Biology programs and is a co-requisite for AICE Biology and AP Biology. Advanced Biology Laboratory supports the core lab hour requirements and activities for these courses by providing students opportunities to focus on the specialized laboratory investigations that are integral parts of these courses. Students also gain practical experience in accessing and utilizing scientific literature, employing advanced laboratory techniques, and increasing their ability to design and conduct in-depth independent research projects.

Schools offering course: 3, 4, 6, 7, 8, 9, 10

PRE-AP CHEMISTRY (441001)

Grades: 10-12

Prerequisite: Completion of one laboratory science with a grade of “B+” or “A” for the year and Algebra I with a grade of “B+” or “A” for the year and teacher recommendation

Credit: 1

Pre-AP Chemistry provides the highly motivated, college-bound student with a rigorous first-year chemistry course. Students who elect to take this course must have a true desire to take AP Chemistry as a second-year course. Completion of this course will make the transition to AP Chemistry less difficult and improve test scores on the AP examination. The content of this course will include the following: matter and energy, atomic structure, bonding, periodic table, mathematics of chemistry, kinetics and equilibrium, acids and bases, redox and electrochemistry, organic chemistry, applications of chemical properties, nuclear chemistry, and laboratory activities as well as enriched objectives. Students will complete laboratory activities that emphasize the quantitative applications learned in class. Students are required to take the Chemistry Standards of Learning assessment at the end of this course.

Schools offering course: 3, 7, 8, 9, 10

ADVANCED PLACEMENT CHEMISTRY (447020)

Grades: 11-12

Prerequisite: Successful completion of Chemistry I with a grade of ‘B+’ or better, at least Algebra II with a grade of ‘B’ or better, and teacher recommendation; at Osbourn Park HS offered to 10th graders with teacher recommendation

Co-requisite: Advanced Chemistry Lab (447010) except at school 7

Credit: 1

Advanced Placement Chemistry is intended to provide a second level of chemistry comparable to the general chemistry course usually taken during the first year of college. Topics include atomic structure and theory, chemical bonding, states of matter, chemical reactions, stoichiometry, equilibrium, kinetics, thermodynamics, and descriptive chemistry. Students enrolled in this course are encouraged to pursue an advanced mathematics sequence. Students are expected to take the Advanced Placement Chemistry examination in May. With a Satisfactory score, students may be eligible to receive some credit for college-level chemistry. This course is in compliance with the advanced placement course description of the College Board.

Schools offering course: 3, 4, 6, 7, 8, 9, 10

ADVANCED CHEMISTRY LABORATORY (447520)

Grades: 11-12

Prerequisite: Satisfactory completion of two laboratory courses from earth science, biology, chemistry, and/or physics; at Osbourn Park HS offered to 10th graders with teacher recommendation

Co-requisite: Advanced Placement Chemistry (447020) or AICE Chemistry (447040)

Credit: 1

This course complements the AICE and AP Chemistry programs and is a co-requisite for AICE Chemistry and AP Chemistry. Advanced Chemistry Laboratory supports the core lab hour requirements and activities for these courses by providing students opportunities to focus on the specialized

laboratory investigations that are integral parts of these courses. Students also gain practical experience in accessing and utilizing scientific literature, employing advanced laboratory techniques, and increasing their ability to design and conduct in-depth independent research projects.

Schools offering course: 3, 4, 6, 7, 8, 9, 10

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE (427020)

Grades: 11-12

Prerequisite: Successful completion of Biology I, Chemistry I, and Algebra II with a grade of "B" or better
Credit: 1

Advanced Placement Environmental Science utilizes students' mathematics and scientific skills in a systems approach to the environment. Major systems include aquatic and terrestrial ecosystems, the atmosphere, and resource allocation/distribution. In addition to laboratory work, some fieldwork is required. This course is in compliance with the Advanced Placement Environmental Science course description as set by the College Board. Since Earth Science I is not a mandated prerequisite for this course, students who have not taken Earth Science I will be required to take the Earth Science Standards of Learning assessment at the end of this course. Students are expected to take the Advanced Placement Environmental Science examination in May. With a satisfactory score, students may be eligible to receive some credit for college-level environmental science.

Schools offering course: 3, 4, 6, 7, 8, 10

ADVANCED PLACEMENT PHYSICS B (457020)

Grades: 11-12

Prerequisite: Successful completion of Algebra II and Chemistry (with a grade of "B" or better), successful completion of Trigonometry (or concurrent enrollment in Trigonometry with a teacher recommendation).
Additional requirement for School 3 and 8 only: SOL-Based Physics (formerly Physics I) with a grade of "B" or better

Co-requisite (except at school 8): Advanced Physics Laboratory (457010)

Credit: 1

AP Physics is an algebra-based course that is representative of topics covered in similar college physics courses, as determined by periodic surveys. The course covers five general areas: mechanics, kinetic theory and thermodynamics, electricity and magnetism, waves and optics, and modern physics. Students are expected to take the Advanced Placement Physics B examination in May. With a satisfactory score, students may be eligible to receive some credit for college-level physics.

Schools offering course: 3, 6, 10

ADVANCED PHYSICS LABORATORY (457520)

Grades: 11-12

Prerequisite: Satisfactory completion of two laboratory courses from earth science, biology, chemistry, and/or physics

Co-requisite: Advanced Placement Physics (457020) or AICE Physics (457040)

Credit: 1

This course complements the AICE and AP Physics programs and is a co-requisite for AICE Physics and AP Physics. Advanced Physics Laboratory supports the core lab hour requirements and activities for these courses by

providing students opportunities to focus on the specialized laboratory investigations that are integral parts of these courses. Students also gain practical experience in accessing and utilizing scientific literature, employing advanced laboratory techniques, and increasing their ability to design and conduct in-depth independent research projects.

Schools offering course: 3, 4, 6, 7, 10

ADVANCED PLACEMENT PHYSICS C (457000)

Grades: 11-12

Prerequisite: Completion of Algebra II/Trigonometry with a grade of "A" or Functions/Analytic Geometry with a grade of "B" or better. Concurrent enrollment in Calculus is preferred but not required

Co-requisite: Advanced Physics Laboratory (457010)

Credit: 1

AP Physics C ordinarily forms the first part of a college sequence that serves as the foundation in physics for students interested in the physical sciences or engineering. The focus of this course is principally mechanics. Strong emphasis is placed on solving a variety of challenging problems, requiring some calculus that is presented to students during instruction. Students are expected to take the Advanced Placement Physics C examination in May. With a satisfactory score, students may be eligible to receive some credit for college-level physics.

Schools offering course: 3, 6, 7, 9

CAMBRIDGE SCIENCE COURSES

IGCSE BIOLOGY (431040)

Grades: 9-10

Prerequisite: Completion of Grade 8 Science with a grade of "B" or better and teacher recommendation

Credit: 1

This laboratory-based course includes a curriculum designed to give students a foundation in biological concepts as well as the opportunity to utilize principles of experimental design in laboratory inquiry and on a required independent student project. IGCSE Biology includes, but is not limited to, characteristics and classification of living organisms; organization and maintenance of organisms; reproduction, inheritance, and the continuity of life; and the relationships of organisms to one another and to their environment. *Note: This course may utilize animal dissection techniques as an instructional strategy. Students who conscientiously object to these exercises will participate in Division-approved activities that provide comparable learning experiences.* Students are required to take the Biology Standards of Learning assessment at the end of this course.

Schools offering course: 1, 4

AICE BIOLOGY (AS Level) (437040)

Grades: 11-12

Prerequisite: Completion of IGCSE Biology or Biology I with a grade of "B" or better; completion of IGCSE Chemistry or Chemistry I with a grade of "B" or better; and completion of Algebra II or IGCSE Geometry, and a teacher recommendation

Co-requisite: Advanced Biology Laboratory (437010) at school 4 only and Algebra II or Algebra II/Trigonometry

Credit: 1

AICE Biology is an accelerated and rigorous course that follows an international, advanced level curriculum. This course is lab-oriented, with a curriculum designed to give students a foundation in biological concepts as well



as the opportunity to utilize principles of experimental design in laboratory inquiry and on a required independent student project. The course covers major biological topics. Students will be prepared to sit for a practical test and external examinations leading to Advanced International Certificate of Education Diploma and an Advanced Placement qualification.

Schools offering course: 1, 4

AICE BIOLOGY (A Level) (437045)

Grades: 11-12

**Prerequisite: Completion of
AICE Biology (AS Level)**

Credit: 1

This course is a second year of the AICE Level Biology curriculum that incorporates lab experience as an integral component of its study. The curriculum involves a detailed examination of major biological themes, along with one of four optional units: mammalian physiology; microbiology and biotechnology; growth, development, and reproduction; and applications of genetics in a more comprehensive manner. Students will sit for external exams that contribute to the Advanced International Certificate of Education Diploma and present a possibility for students to receive college credit for an introductory biology course.

School offering course: 1

IGCSE CHEMISTRY (441040)

Grades: 10-11

Prerequisite: Completion of IGCSE Biology or Biology I with a grade of "B" or better and teacher recommendation; completion of IGCSE Algebra I or Algebra II with a grade of "B" or better and teacher recommendation; successful completion of English 9

Credit: 1

This course is lab-oriented, with a curriculum designed to give students a foundation in chemistry concepts as well as the opportunity to utilize principles of experimental design in laboratory inquiry and on a required independent student project. The course will include the major principles of chemistry: structure of matter, chemical and physical properties, periodic trends, molar and stoichiometric relationships, chemical reactions and equilibria, chemical kinetics, electrochemistry, thermodynamics, acid-base theory, and organic and environmental chemistry. Assessment will include an external examination and coursework evaluations by the teacher. Students are required to take the Chemistry Standards of Learning assessment at the end of this course.

Schools offering course: 1, 4

AICE CHEMISTRY (447040)

Grades: 11-12

Prerequisite: Completion of IGCSE Chemistry or Chemistry I and Algebra II or IGCSE Algebra II/Trigonometry with a "B" or better and teacher recommendation

Co-requisite: Advanced Chemistry Laboratory (447010) at school 4 only

Credit: 1

AICE Chemistry is an accelerated and rigorous course that encompasses the AP Chemistry curriculum and enriched AICE topics. This course is lab-oriented, with a curriculum designed to give students a foundation in chemistry concepts as well as the opportunity to utilize principles of experimental design in laboratory inquiry and on a required independent student project. The expanded curriculum enables students to pursue advanced studies of analytic separation techniques, biochemistry, and spectroscopy. Students will be prepared to sit for external examinations in theory and practical assessments leading to an Advanced International Certificate of Education Diploma and an Advanced Placement qualification.

Schools offering course: 1, 4

IGCSE PHYSICS (451040)

Grades: 10-11

Prerequisite: A grade of "B" or better in English 9, Algebra I, IGCSE Geometry or Geometry I, and IGCSE Algebra II/Trigonometry (concurrent enrollment in IGCSE Algebra II/Trigonometry is allowed with a previous IGCSE teacher recommendation)

Credit: 1

This course offers a combination of theoretical and practical studies such as mechanics that analyze motions and forces; study of energy with applications to work and power; thermodynamics; properties of waves (light and sound); electricity and magnetism; and atomic physics leading to an understanding of the basic principles of physics. Investigations will be student designed and tested emphasizing principles of experimental design, inquiry-based discovery, and scientific problem solving. Independent research is a required part of the program. IGCSE Algebra II/Trigonometry must have been successfully completed or the student must take IGCSE Algebra II/Trigonometry concurrently. Assessment measures will include external student examination and course evaluations by the teacher.

Schools offering course: 1, 4

AICE PHYSICS (457040)

Grades: 11-12

Prerequisite: A grade of "B" or better in IGCSE Physics or Physics I, IGCSE Algebra II/Trigonometry, IGCSE Chemistry or Chemistry I or concurrently enrolled in Functions Analytic with a teacher recommendation

Co-requisite: Advanced Physics Laboratory (457010) at school 4 only

Credit: 1

AICE Physics is an accelerated and rigorous course that encompasses the AP Physics curriculum and enriched AICE program topics. This course focuses on the advanced study of topics in general physics, Newtonian mechanics, matter, oscillations and waves, electricity and magnetism, and modern physics. The inquiry-based approach emphasizing principles of experimental design, scientific problem solving, and research skills requires students to use principles and concepts that are taught and to apply them in a logical, reasoned, and deductive manner to their work. Independent research is a required part of the program. Students will be prepared to sit for external examinations in theory and practical applications leading to an Advanced International Certificate of Education Diploma and an Advanced Placement qualification.

Schools offering course: 1, 4

AICE ENVIRONMENTAL MANAGEMENT (438040)

Grades: 11-12

Prerequisite: Successful completion of IGCSE Biology or Biology I AND IGCSE Chemistry or Chemistry I AND IGCSE Algebra II or Algebra II with a 'B' or better and teacher recommendation

Credit: 1

This accelerated Cambridge course has a strong human dimension and is concerned with both local and global issues. The curriculum encompasses the four traditional subdivisions of the global environment, including the lithosphere, hydrosphere, biosphere, and atmosphere. The course develops in students a strong understanding of the Earth's natural systems and the effects of human activity on these systems. Students are challenged to think about important environmental issues and to look to themselves for possible solutions. An important component of the practical assessment is an Individual Research Report based on issues for the course of studies. Students will be prepared to sit for an external examination leading to the AICE Diploma and an Advanced Placement qualification. Since Earth Science is not a mandated prerequisite for this course, students who have not taken Earth Science I will be required to take the Earth Science Standards of Learning Assessment at the end of this course.

Schools offering course: 1, 4

INTERNATIONAL BACCALAUREATE SCIENCE COURSES

IBMYP EARTH SCIENCE (421051)

Grades: 9-12

Prerequisite: Enrollment in the IB Program and completion of Grade 8 Science with a grade of "B" or better

Credit: 1

IBMYP Earth Science is designed for IB students who wish to concentrate on rigorous earth science principles and processes that will lead to more qualitative sciences. Students will investigate the natural sciences of astronomy, oceanography, meteorology, and geology. The IB internal assessment will serve as a guide as students apply the scientific method. Students are required to take the Earth Science Standards of Learning assessment at the end of this course.

Schools offering course: 2, 5

IB ENVIRONMENTAL SYSTEMS (SL) (451151)

Grades: 11-12

Prerequisite: Completion of Pre-IB Biology and Pre-IB Chemistry with a grade of "C" or better

Credit: 1

This course enables students to develop a coherent perspective on the environment. The 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, and the functional relationships that maintain their dynamic integrity. Topics include global cycles and physical systems, human population, freshwater ecosystems, conservation and biodiversity, and pollution. Students are required to take the IB Environmental Systems exam. *Diploma candidates taking IB Biology may not use this course as their sixth subject.* Students are required to take the Earth Science Standards of Learning assessment at the end of this course.

Schools offering course: 2, 5

IBMYP BIOLOGY I (431050)

Grades: 9-12

Prerequisite: Successful completion of Grade 8 Science and teacher recommendation

Credit: 1

IBMYP Biology is a survey of the animal, plant, and protist kingdoms, including consideration of the classification, distribution, and life processes of the major groups of each kingdom. Students will use scientific research methods to investigate scientific principles. Extensive laboratory work will be a part of the course, and students are required to submit written lab reports. Students will explore the skills used by practicing biologists and how biology can help solve environmental problems. *Note: This course may utilize animal dissection techniques as an instructional strategy. Students who conscientiously object to these exercises will participate in Division-approved activities that provide comparable learning experiences.* Students are required to take the Biology Standards of Learning assessment at the end of this course.

Schools offering course: 2, 5

IB BIOLOGY I (HL) (438050)

Grade: 11

Prerequisite: Successful completion of IBMYP Biology I and IBMYP Chemistry I and teacher recommendation

Credit: 1

IB Biology is the first year of 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 course are structure and function, universality versus diversity, and equilibrium within systems. *Note: This course may utilize animal dissection techniques as an instructional strategy. Students who conscientiously object to these exercises will participate in Division-approved activities that provide comparable learning experiences.*

Schools offering course: 2, 5

IB BIOLOGY II (HL) (439050)

Grade: 12

Prerequisite: Completion of IB Biology I with a grade of "C" or better

Credit: 1

IB Biology II is an introduction to advanced anatomy and physiology and plant biology. A review of IB Biology I principles and processes in the areas of molecular and cellular biology, genetics, ecology, and organisms is included. Students are required to take the IB examination at the end of the course. Laboratory work is an integral part of this course and students are required to submit written laboratory reports. *Note: This course may utilize animal dissection techniques as an instructional strategy. Students who conscientiously object to these exercises will participate in Division-approved activities that provide comparable learning experiences.*

Schools offering course: 2, 5

IBMYP CHEMISTRY (441051)

Grades: 10-12

Prerequisite: Successful completion of one year of laboratory science and Algebra I with a grade of “C” or better

Credit: 1

This course includes the major concepts of chemistry, including atomic structure and bonding, formulas and equations, stoichiometry, oxidation-reduction, thermodynamics, chemical equilibrium, acid-base theory, and simple organic chemistry. Students will use scientific research methods to investigate scientific principles. Laboratory experiments are designed to illustrate major concepts and to reinforce the IB Group 4 rubric. Students will be required to submit written laboratory reports. Students are required to take the Chemistry Standards of Learning assessment at the end of this course.

Schools offering course: 2, 5

IB CHEMISTRY I (HL) (448050)

Grade: 11

Prerequisite: Successful completion of IBMYP Chemistry I and teacher recommendation

Credit: 1

IB Chemistry I is the first year of a survey course 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. Emphasis is on problem solving, proficiency in mathematical usage, and improvement and expansion of laboratory techniques as related to contemporary chemistry to include experimental design. Students will be required to submit written laboratory reports.

Schools offering course: 2, 5

IB CHEMISTRY II (HL) (449050)

Grade: 12

Prerequisite: Successful completion of IB Chemistry I with a grade of “C” or better

Credit: 1

IB Chemistry is the second year of a survey course of the major principles of chemistry. Emphasis is on research techniques, advanced laboratory techniques, advanced problem solving and synthesis of prior knowledge to investigate IB option topics. With a satisfactory IB exam score, students may receive credit for introductory college chemistry. Students will be required to submit written laboratory reports.

Schools offering course: 2, 5

IB PHYSICS (SL) (458050)

Grades: 11-12

Prerequisite: Successful completion of IBMYP Physics with a grade of “C” or better and IBMYP Algebra II/Trigonometry with a grade of “B” or better

Credit: 1

IB Physics I is an extremely fast-paced, rigorous course following the IB Standard Level curriculum. Building on their background from IBMYP Physics, students will study mechanics, heat, electromagnetism, light, sound, and modern physics in greater depth. Students will design and implement their own laboratory investigations and will be graded using IB assessment criteria. They will participate in the interdisciplinary “Group 4 Project” and will sit for the Standard Level examination at the end of the course.

Schools offering course: 2, 5

STANDARD SCIENCE ELECTIVE COURSES

EARTH SCIENCE II: OCEANOGRAPHY (425020)

Grades: 11-12

Prerequisite: A grade of “C” or better in Earth Science AND Biology I or Chemistry I with a grade of “C” or better

Note: Course work in Chemistry is recommended.

Credit: 1

Oceanography is a second level Earth Science course designed to be a more in-depth treatment of the oceanography concepts presented in first year Earth Science. It is a broad survey course dealing mainly with physical oceanography and covering such topics as the geology and geography of ocean basins; physical properties of sea water; marine chemistry; salinity and density; circulation of the oceans, waves and tides; and oceanographic instruments, tools, and methods. Emphasis is also placed on marine biology, ocean policy, and ocean ecology.

Schools offering course: All

EARTH SCIENCE II: ASTRONOMY (426020)

Grades: 11-12

Prerequisite: A grade of “C” or better in Earth Science, a grade of “C” or better in Algebra I, AND a grade of “C” or better in either Biology I or Chemistry I

Credit: 1

Astronomy is a second level Earth Science course designed to be a more in-depth, mathematical treatment of the astronomical concepts presented in introductory Earth Science. Topics such as the universe, universal laws, galaxies, stellar evolution, the solar system and its motion, and the exploration of space will be discussed.

Schools offering course: 2, 3, 4, 5, 7, 8, 9, 99

EARTH SCIENCE II: PHYSICAL GEOLOGY (424020)

Grades: 11-12

Prerequisite: A grade of “C” or better in Earth Science, a grade of “C” or better in either Biology I or Chemistry I; AND enrollment in either Algebra I

Credit: 1

Physical Geology is a second level Earth Science course designed to be a more in-depth treatment of the geology concepts presented in introductory Earth Science. Topics of study include but are not limited to plate tectonics theory; interrelationships between humans and the geological environment that affect ground water resources; runoff and erosion; waste disposal; energy resources and food production; time/space relationships in the earth record; and geomorphology.

Schools offering course: 4, 7, 10

BIOLOGY II: SURVEY OF ADVANCED TOPICS IN BIOLOGY (432000)

Grades: 11-12

Prerequisite: Successful completion of *Biology I* and *Chemistry I* with a "C" or better

Credit: 1

Biology II: Survey of Advanced Topics in Biology is an academically rigorous, in-depth, second year study of selected areas of biology that allows highly motivated students to delve more deeply into life systems and processes. Extensive laboratory work is part of this course. Emphasis is placed on research skills and techniques. *Note: This course utilizes animal dissection techniques as a major instructional strategy. Students who conscientiously object to these exercises will participate in Division-approved activities that provide comparable learning experiences.*

Schools offering course: 1, 2, 4, 6, 7, 8, 9

BIOLOGY II: INTRODUCTION TO DNA SCIENCE AND BIOTECHNOLOGY (435030)

Grades: 11-12

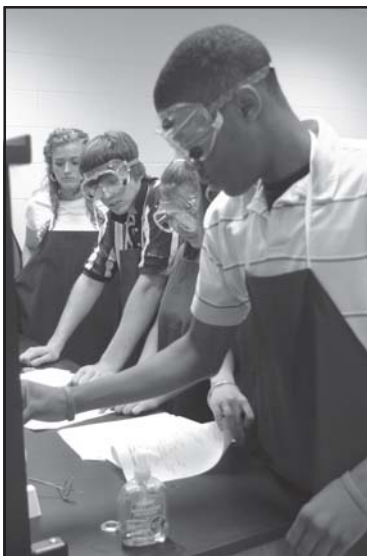
Prerequisite: Completion of *Biology I* and *Chemistry I* with a "C" or better in both courses; completion of *Algebra I* and *Geometry* with a "C" or better in both courses and teacher recommendation

Co-requisite: Enrollment in *Algebra II* or higher

Credit: 1

This is a second-year study of biological and chemical principles related to molecular biology and biotechnology. The course is designed for students with interests in the health sciences, animal science, and plant biology. A variety of topics, issues, and techniques will be addressed, including cellular structure and function; enzyme activity; classical and molecular genetics; DNA science (gene regulation, mutation, transfer; karyotyping; and DNA sequencing and decoding), genetic engineering applications; and various biotechniques. Ethical, social, and legal implications associated with biotechnology will be explored through case studies, student research, discussion, debate, and examination of current events. Laboratory experiences will include chromatography, electrophoresis, immunology, enzyme studies, DNA extraction, PCR simulation, and plant cloning.

School offering course: 3



BIOLOGY II: ECOLOGY (434033)

Grades: 11-12

Prerequisite: Successful completion of *Advanced Earth Science* and *Pre-AP Biology*, and concurrent enrollment or completion of *Chemistry I*.

Credit: 1

Ecology is an academically rigorous, in-depth, second year study of biological and ecological principles governing higher levels of organization (populations, communities, ecosystems). Concepts that will be covered include adaptation and natural selection; the physical environment and climate; population ecology, growth models, and life history patterns; communities, competition, parasitism, mutualism, and human interactions; ecosystem productivity, energy flow, nutrient cycling, and biogeochemical cycles; and biogeography, biodiversity, and global environmental change. The science of ecology is dedicated to an understanding of the relationships between organisms and their environment and is often at the center of public policy disputes related to the environment; therefore, students will learn how ecological research is becoming increasingly important and prominent throughout the world.

School offering course: 10

LAB ASSISTANT/SCIENCE SEMINAR (461000) SCIENCE TEACHER'S AIDE (0143)

Grades: 10-12

Prerequisite: Successful completion of subject in which assisting and prior approval of supervising teacher

Credit: 1/2 for 461000; none for 0143

Lab Assistant/Science Seminar offers the student the opportunity to learn more science while assisting a science teacher. The instructional objectives vary according to the course in which the student is assisting and according to the program, interests, and ability of the student. This course may be taken more than once for credit with prior approval of the science department chairperson. *To earn credit for Lab Assistant, instructional objectives and evaluative criteria must be delineated as per Regulation 681-3, Section III.C.*

Schools offering course: 461000: 1, 2, 4, 5, 6, 7, 8, 9, 10
0143 only: 3

CHEMISTRY II: FORENSIC SCIENCE AND CHEMICAL ANALYSIS (4420200)

Grades: 10-12

Prerequisite: Successful completion of *Biology I* and *Chemistry I* with a "C" or better. Successful completion of *Algebra II* with a "C" or better

Credit: 1

In this college preparatory course, students will work toward a comprehensive understanding of forensic science. The foundation will include central concepts concerning the history of forensic science, the chemical analysis of forensic evidence, and crime scene management. Students will apply Locard's Principle in the observation, acquisition, and analysis of forensic evidence. Major focus will be placed upon the understanding of science as an active process including the application of instrumental methods of analysis such as ultraviolet, visible, infrared and fluorescence spectrophotometry, gas chromatography, and thin layer chromatography to the classification of physical evidence. In addition, techniques of analytical chemistry will be utilized to investigate the chemical composition of blood, latent fingerprints, hair and fiber evidence, toxicology, soil samples, questioned documents, and other types of trace evidence.

Schools offering course: 9

SCIENCE ELECTIVES FOR THE BIOTECH PROGRAM AND/OR THE CENS PROGRAM

INTRODUCTION TO MICROBIOLOGY AND BACTERIOLOGY (461034)

Grades: 10-12

Prerequisite: *Successful completion of introductory Biology with a grade of “C” or better and successful completion of, or concurrent enrollment in Chemistry*
Credit: 1/2

This half credit science elective course will give students the opportunity to learn about the immunological and biological properties of bacteria, viruses, and fungi. In this course students will be exposed to the tools required for a research career and study current issues in microbiology and immunology. Students will become acquainted with the dynamics of the host/parasite relationship, including host defense systems, and the relationship of microorganisms to disease.

School offering course: 3

INTRODUCTION TO FORENSIC SCIENCE (461035)

Grades: 10-12

Prerequisite: *Successful completion of introductory Biology with a grade of “C” or better and successful completion of, or concurrent enrollment in Chemistry*
Credit: 1/2

This half credit science elective course will give students the opportunity to examine how technology has revolutionized forensic science and how it is used to solve crimes; the principles that are applied in the collection, preservation, and analysis of evidence; what characterizes individual evidence and class evidence; how microscopic evidence is used in the study of crime; and what the role of experimentation is in teaching, explaining, and illustrating forensic concepts.

School offering course: 3

SENIOR INDEPENDENT RESEARCH (461033)

Grade: 12

Pre-requisite: *Enrollment in the BIOTECH or CENS program and successful completion of three laboratory sciences*

Credit: 1

This research course is designed to provide BIOTECH or CENS students with an opportunity to apply what they have learned from course work; design their own active inquiry experience; research and prepare a technical paper or electronic presentation; present orally the results of their research; hear talks and share ideas with fellow students and scientists from industry and academia; and gain experience in self-expression during an oral examination. The project will include qualitative or quantitative research and analysis and will reflect a year-long study of a minimum of 140 documented hours in one of several areas including business or government agency mentorship; independent scientific experimentation with quantifiable results; performance of directed, after-hours community projects; performance or assistance with independent research affiliated with a university; or performance and/or completion of a Distance Learning Project. *In order to qualify for this opportunity, BIOTECH or CENS students must submit a written project proposal to the Senior Independent Research teacher. Each student must arrange to have a faculty advisor or mentor from industry or academia.*

Schools offering course: 3, 10

SOCIAL STUDIES

GRADUATION REQUIREMENTS IN SOCIAL STUDIES:

Advanced Studies Diploma: student must earn 4 credits with 2 of them being verified by passing an SOL Test

Standard Diploma: student must earn 3 credits with 1 being verified by passing an SOL Test

Modified Standard Diploma: student must earn 2 credits, no verified credit required

****Note courses that meet these requirements in the chart below.** (Course descriptions follow this page.)

- Courses indicating a “**V**” have an end-of-course SOL test and offer the *possibility* of a verified unit of credit.
- Courses indicating a “**W**” offer the *possibility* of weighted credit if the student completes the required external assessment of the course.

STANDARD COURSE	MEETS DIPLOMA REQUIREMENTS FOR:	APPROVED SUBSTITUTES
World History and Geography from 1500 to Present - V	Advanced Studies Diploma Standard Diploma	<ul style="list-style-type: none"> • Pre-AP World History and Geography from 1500 - V • IBMYP World History and Geography from 1500 - V
World Geography - V	Advanced Studies Diploma	<ul style="list-style-type: none"> • AP Human Geography - V, W • IB Geography - V, W • IGCSE World Geography - V • IB History II - W • AP European History - W
Virginia & U.S. History - V	Advanced Studies Diploma Standard Diploma Modified Standard Diploma **	<ul style="list-style-type: none"> • AP U.S. History - V, W • AICE U.S. History - V, W • IB History I - V, W
Virginia & U.S. Government	Advanced Studies Diploma Standard Diploma Modified Standard Diploma **	<ul style="list-style-type: none"> • AP U.S. Government and Politics - W • IBMYP/AP Government and Politics: Comparative - W • AP Government and Politics: Comparative - W
<p>** Eligibility and participation in the Modified Standard Diploma program shall be determined by the student’s Individual Education Program (IEP) team and the student, where appropriate, at any point after the student’s 8th grade year. A student who has chosen the Modified Standard Diploma shall be allowed to pursue the Standard or Advanced Studies Diploma at any time throughout his/her high school career.</p>		

The following electives may not be used to meet the graduation requirement:

- | | |
|--|--|
| <ul style="list-style-type: none"> • AICE International History – W • AICE Psychology - W • Anthropology • AP Economics – W • AP Psychology – W • Archaeology • Economics • Hands of History | <ul style="list-style-type: none"> • IB Economics - W • IB Psychology - W • IB Social and Cultural Anthropology - W • Learn and Serve • Psychology • Sociology • Twentieth Century History |
|--|--|

STANDARD COURSES

WORLD HISTORY and GEOGRAPHY from 1500 (2221)

Grade: 9

Prerequisite: Assignment to Grade 9

Credit: 1

This is a survey of world history from 1500 to the present with a concentration on modern developments in western civilization. Course topics include: the Reformation, the Age of Discovery, Absolutism, the Scientific and Industrial Revolutions, the Enlightenment, the development of nation-states, nationalism, and the Age of Imperialism, 20th Century conflicts, and independence movements and world religions and the contemporary world.

Schools offering course: All

WORLD GEOGRAPHY (2210)

Grade: 10

Prerequisite: Assignment to Grade 10 or above

Credit: 1

The focus of this course is the study of the world's peoples, places, and environments, with an emphasis on world regions. The knowledge, skills, and perspectives of the course are centered on the world's population and cultural characteristics, landforms and climates, economic development, and migration and settlement patterns. Spatial concepts of geography will be used as a framework for studying interactions between humans and their environments. Using geographic resources, students will employ inquiry, research, and technology skills to ask and answer geographic questions. Particular emphasis is placed on students' understanding and applying geographic concepts and skills to their daily lives.

Schools offering course: All

U.S. and VIRGINIA HISTORY (2360)

Grade: 11

Prerequisite: Assignment to Grade 11

Credit: 1

The study of the nation's history provides the intellectual foundations for responsible citizenship. The origins of American ideals and institutions are examined. A study of major events, issues, and personalities of the past provides a perspective for understanding contemporary issues and problems. The role of Virginia in the development of the United States is included. Topics included for study: Exploration and Colonization, European Economic Influences and Slavery in the Americas, the American Revolution, the Constitution and Early National Period, Civil War and Reconstruction, the Progressive Era, U.S. as Emerging World Power, World War II, the Cold War, Civil Rights Movements and the Contemporary U.S.

Schools offering course: All

U.S. and VIRGINIA GOVERNMENT (2440)

Grade: 12

Prerequisite: Assignment to Grade 12

Credit: 1

The American system of national, state, and local government, including the role of the United States in global affairs, is analyzed. Basic constitutional principles, rights and responsibilities of citizenship, political beliefs and ideologies, as well as free market economic principles, and the organization and operation of our political institutions are studied. Democratic beliefs and the importance of participation in the democratic process are emphasized.

Schools offering course: All

ADVANCED PLACEMENT COURSES

Pre-AP WORLD HISTORY and GEOGRAPHY from 1500 (222101)

Grade: 9

Prerequisite: Assignment to Grade 9

Credit: 1

This pre-collegiate course emphasizes the development of basic historical research skills using primary and secondary sources, as well as the analytical skills to understand multiple causes and perspectives for significant historical events. The course includes instruction using the strategies outlined in the College Board's guide for early preparation for future AP history examinations. The course is a survey of world history from 1500 to present with a concentration on modern developments in western civilization and includes: the Reformation, the Age of Discovery, Absolutism, the Scientific and Industrial Revolutions, the Enlightenment, the development of nation-states, nationalism, and the Age of Imperialism, 20th Century conflicts and independence movements, world religions and the contemporary world. **This course is an integral component of the multidisciplinary program of studies established for the Biotechnology Center (BIOTECH), Center for Environmental and Natural Sciences (CENS), Center for the Fine and Performing Arts (CFPA), Center for International Studies and Languages (CISL), and Centers for Information Technology (IT). For additional information, refer to the description of these programs in the specialty program section.**

Schools offering course: 3, 4, 6, 7, 8, 9, 10

AP EUROPEAN HISTORY (239920)

Grades: 10-12

Prerequisite: Successful completion of World History from 1500

Credit: 1

The study of European history since 1450 introduces students to cultural, economic, political, and social developments that played a fundamental role in shaping the world in which they live. In addition to providing a basic narrative of events and movements, the goals of the AP program in European History are to develop: an understanding of some of the principal themes in modern European History; an ability to analyze historical evidence and historical interpretation; and an ability to express historical understanding in writing. *In May, students take the AP Examination to qualify for advanced standing and/or credit in college.*

Schools offering course: 1, 3, 6, 7, 8, 9, 10

AP HUMAN GEOGRAPHY (2212)

Grades: 10-12

Prerequisite: Successful completion of World History from 1500

Credit: 1

This introductory college course in human geography introduces students to the systematic study of patterns, and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice, including Geographic Information Systems. *In May, the students will take an Advanced Placement Human Geography Examination to qualify for advanced standing and/or credit in college.*

Schools offering course: 3, 6, 7, 10

AP U.S. HISTORY (2319)

Grade: 11

Prerequisite: Teacher recommendation

Credit: 1

Advanced Placement U.S. History is a course designed for the student who accepts the challenge of an advanced class in American History. Students will be expected to master all of the SOL objectives for Virginia and U.S. History. In addition, analytical writing will be required, both in essays developed within the framework of the class and in papers developed as a result of research assignments. *In May, the students will take an Advanced Placement U.S. History Examination to qualify for advanced standing and/or credit in college.*

Schools offering course: 3, 4, 6, 7, 8, 9, 10

AP GOVERNMENT AND POLITICS: U.S. (2445)

Grade: 12

Prerequisite: Teacher recommendation

Credit: 1

This college level course in U.S. political science includes topics such as: Constitutional underpinnings of U.S. government, political beliefs and behaviors, political parties, interest groups, and mass media, institutions of national government, public policy, and civil rights and liberties. Analytical writing will be required, both in essays developed within the framework of the class and in papers developed as a result of research assignments. *In May, the students will take an Advanced Placement Government Examination to qualify for advanced standing and/or credit in college.*

Schools offering course: 1, 3, 4, 6, 7, 8, 9, 10, 99

AP GOVERNMENT AND POLITICS: COMPARATIVE (245020)

Grades: 11-12

Prerequisite: Virginia and U.S. History or Advanced Placement American History or concurrent enrollment

Credit: 1

This college level political science course includes topics such as: introduction to comparative politics; sovereignty, authority, and power; political institutions; citizens, society, and the State; political and economic change; and public policy. Case studies in the governments of Great Britain, China, Iran, Mexico, Russia, and Nigeria provide context for exploring the topics of the course. Analytical writing will be required, both in essays developed within the framework of the class and in papers developed as a result of research assignments. *In May, the students will take an Advanced Placement Government Examination to qualify for advanced standing and/or credit in college.*

Schools offering course: 5, 7, 8

CAMBRIDGE COURSES

IGCSE WORLD GEOGRAPHY (221040)

Grades: 10-11

Prerequisite: Successful Completion of World History and teacher recommendation

Credit: 1

This course examines the relationship between social, economic, and geopolitical development across time and place. Course objectives include the study of characteristics and distribution of populations and their affect on physical and human environments using inquiry, practical, and presentation skills. This course is required for those enrolled in the Cambridge program. *Students will sit for IGCSE examinations.*

School offering course: 4

AICE U.S. HISTORY (236041)

Grade: 11

Prerequisite: Successful Completion of English 10 or IGCSE English 10, IGCSE World Geography, World History and teacher recommendation

Credit: 1

This advanced study of American history follows an international curriculum which focuses on key developments that transformed the United States from an isolated, agrarian society to the world's leading superpower. Students will demonstrate an understanding of the complexity of issues, will interpret source materials as historical evidence, and will demonstrate facility in their use. On external examinations, students will answer compulsory source-based questions and respond to a choice of essay questions. They will be prepared to qualify for the Advanced International Certificate of Education Diploma.

Schools offering course: 1, 4

INTERNATIONAL BACCALAUREATE COURSES

IBMYP WORLD HISTORY and GEOGRAPHY from 1500 (222150)

Grade: 9

Prerequisite: Assignment to Grade 9

Credit: 1

IBMYP World History is a survey of world history from 1500 to present with a concentration on modern developments in western civilization and includes: the Reformation, the Age of Discovery, Absolutism, the Scientific and Industrial Revolutions, the Enlightenment, the development of nation-states, nationalism, and the Age of Imperialism, 20th Century conflicts and independence movements, world religions and the contemporary world. Students are trained in historical analysis by discussion, research, and oral and written presentation. Students analyze documents for their origin, purpose, value and limitations. These skills are the foundation for the four year IB sequence and are a critical component of IB assessments.

Schools offering course: 2, 5

IBMYP/AP GOVERNMENT AND POLITICS:

COMPARATIVE (245050)

Grades: 10-12

Recommended prerequisite: IBMYP English 9 and IBMYP World History from 1500

Credit: 1

This college level course includes topics such as: sovereignty, authority, and power; political institutions; citizens, society, and the State; political and economic change; and public policy. Case studies in the governments of Great Britain, China, Iran, Mexico, Russia, and Nigeria provide context for exploring the topics of the course. Analytical writing is required. *In May, students take the AP Examination to qualify for advanced standing and/or credit in college. Students pursuing the IB Diploma take this course as sophomores. IB History certificate candidates take this course during their sophomore or junior year.*

Schools offering course: 2, 5

IB HISTORY I: HISTORY OF THE AMERICAS (HL) (236051)

Grades: 11-12

Prerequisite: Successful completion of IBMYP World History, IBMYP/AP Government and Politics: U.S. or Comparative

Credit: 1

This is a survey course of U.S., Canadian, and Latin American history from early European contacts with American Indians and the people of the First Nation through the 20th Century including analysis of the U.S. Civil War, industrialization, expansion, and the Latin American dictatorships. The course focuses on the American region's historical experience, and political, economic, and social systems. Students will demonstrate historical analysis by discussion, presentation, and written work including the IB History Internal Assessment. *This is the first course in a required two-year sequence of IB diploma level history culminating with a series of external examinations including a full examination on this regional study and may provide college level credit at many colleges and universities.*

Schools offering course: 2, 5

IB HISTORY II: TOPICS IN TWENTIETH CENTURY HISTORY (HL) (238750)

Grade: 12

Prerequisite: Successful completion of IB History I

Credit: 1

This survey course of 20th Century World History includes topics such as: causes, practices, and effects of war; the rise and rule of single-party states; East-West relations after 1945; nationalists and independence movements; decolonization; and the emergence and problems of new nations. This course will continue to stress political, economic, and social systems as well as require 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 research papers which provide the possibility of college credit. *This is the second in a two course sequence for the IB history certificate and is required for the IB diploma.*

Schools offering course: 2, 5

SOCIAL STUDIES ELECTIVE COURSES

ANTHROPOLOGY (237470)

Grades: 11-12

Prerequisite: None

Credit: 1

Anthropology is the scientific study of the physical, social and cultural development of man. Four sub-fields will be studied: physical anthropology, archeology, linguistics, and social anthropology. This course encourages the development of students' perspectives on race, ethnicity, culture and nationality. *This course may be used as a CISL elective but is open to all students in grades 11 and 12.*

School offering course: 7

AP ECONOMICS (280120)

Grades: 11-12

Prerequisite: Teacher recommendation

Credit: 1

Advanced Placement Economics will provide students a thorough understanding of basic economic concepts; the nature and functions of product and factor markets. Students will study the role of the government, as well as the concepts of efficiency and equity. Topics also include: measures of economic performance; national income and price determination; economic growth; international finance, exchange rates and balance of payments. *In May, the students will take one or both Advanced Placement Economics Examinations (Microeconomics or Macroeconomics) to qualify for advanced standing and/or credit in college.*

Schools offering course: 7, 8, 3

IB ECONOMICS (280150)

Grade: 12

Prerequisite: IBMYP/AP Government and Politics: U.S. or Comparative and Algebra II

Credit: 1

This academically rigorous course focuses on the choices that must constantly be made by individuals, firms, and governments, which affect both their own economic well being and that of society as a whole. The questions of "What?" "How?" and "For whom?" are central to the field of economics. Topics will be approached from an international perspective. The course emphasizes the study of economic development as a part of the solution to contemporary real world problems. *The course culminates in an external assessment that provides the possibility of college credit.*

School offering course: 2

ECONOMICS (280000)

Grades: 11-12

Prerequisite: U.S. and Virginia History or concurrent enrollment

Credit: 1

Economics will encourage students to examine the nature of the American economic system, clarify attitudes about the system, and develop skills necessary to function as informed citizens in that system. Students will also examine economic concepts, analyze the interaction between business, labor, government, and the consumers, as well as study the impact of economic decisions.

School offering course: 8

IB GEOGRAPHY (IB2210)

Grades: 11-12

Credit: 1

In this college level course, students will develop a global perspective and a sense of world interdependence by understanding the relationship between people, place, and environment. Additional topics include: environmental quality; planning and management of resources for present and future generations; the relevance of geography in analyzing contemporary world issues; issues of social justice, equality and respect for others and an appreciation of diversity. Students will explore a wide range of geographical methodologies and apply appropriate techniques of inquiry including Geographic Information Systems technologies to develop solutions to geographic related issues and problems. *The course culminates in an external assessment that provides the possibility of college credit.*

School offering course: 5

HANDS ON HISTORY: DISCOVERING PRINCE WILLIAM COUNTY'S PAST (2996)

Grades: 10-12

Prerequisite: None

Credit: 1

This course teaches stewardship and preservation of local cultural resources; develops applied skills in historical analysis such as archival research, artifact interpretation and oral history interview techniques; enables students to share research findings with the community; and encourages community service and active citizenship. Local objects, primary sources, architectural remains, landscapes and citizens are explored. Publications from the Prince William Historic Commission will be available, as well as opportunities to interact with the county government's and citizen groups' preservation and education efforts. Topics include: regional prehistory to native contact with Europeans; colonial times through the 1750s; early agricultural, industrial and commercial developments; the Revolutionary War's effects; the diverse antebellum population; the Civil War and the impact of Reconstruction on the area; debate over formation of magisterial districts and the shifts in the location of the county seat; the county at the turn of the century, WWI, Quantico and WWII; and desegregation of local schools.

Schools offering course: 3, 6, 8

AICE INTERNATIONAL HISTORY 1945 – 1991 (238740)

Grades: 11-12

Prerequisite: A grade of "B" or better in U.S. History or AICE U.S. History, English 11 or AICE English 11, and teacher recommendation

Credit: 1

AICE International History, 1945-1991, will help students to develop an interest in the past and an awareness of historical concepts. By studying diverse historical sources, methods, and interpretations of particular historical issues, students will learn to think independently and make informed judgments. Through examination of six major themes, students will gain knowledge and understanding of the key developments that shaped the international order after 1945. Content/themes include: the Cold War conflict; globalization of the Cold War; the Nuclear Arms Race; crisis of Communism and the end of the Cold War; the international economy; and the Third World. *Successful completion of the end of course exam will result in an AICE certificate or an AICE Diploma.*

Schools offering course: 1, 4

LEARN AND SERVE (982020)

Grades: 10-12

Prerequisite: Successful completion of ninth grade social studies with a "B" or better

Credit: 1

Through Learn and Serve, students develop an appreciation of the concept of service to the community and skills necessary to evaluate the impact of service to others. Students will apply information technology skills to respond to school and community needs. A component of the class will involve repairing and recycling older computers and placing them into the community. Learn and Serve students will be involved in mentoring younger students, teacher technology training, and evening retraining programs for the community. The class will have discussions with public officials and community leaders. Students must perform volunteer service as part of the class curriculum and produce a final report.

School offering course: 8

AICE Psychology (290240)

Grade: 12

Prerequisite: None

Credit: 1

This college level course is designed to help students develop an appreciation of the various fields of psychology including: cognitive, social, physiological, and developmental psychology as well as the psychology of individual differences. The course also investigates the relationship of psychology to education, health, organizations, the environment and abnormality. This elective course of study prepares students for the Cambridge examination in Psychology and counts toward the Advanced International Certificate of Education (AICE) Diploma. *The course culminates in an external assessment that provides the possibility of college credit.*

Schools offering course: 4

AP PSYCHOLOGY (290320)

Grade: 12

Prerequisite: Teacher recommendation

Credit: 1

The Advanced Placement Psychology course is designed to introduce students to the systematic 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 the major subfields within psychology. They will also learn about the ethics and methods psychologists use in their science and practice. *In May, the students will take an Advanced Placement Psychology Examination to qualify for advanced standing and/or credit in college.*

Schools offering course: 3, 4, 6, 7, 8

IB PSYCHOLOGY (290350)

Grade: 12

Prerequisite: None

Credit: 1

This college level course investigates three psychological perspectives including: biological, cognitive, and learning. Students will also explore an optional subject area and undertake two studies: research and experimental. This elective course of study prepares students for the standard level examination in Psychology and counts toward the IB Diploma. *The course culminates in an external assessment that provides the possibility of college credit.*

Schools offering course: 5

PSYCHOLOGY (2900)

Grade: 12

Prerequisite: Assignment to Grade 12

Credit: 1

Psychology will introduce the students to the study of individual human behavior. Students explore subjects studied by behavioral scientists and apply psychological concepts to everyday human problems and life. Topics will include the scientific methods used in psychology, human growth and development, the study of personality, and mental health and behavioral disorders.

Schools offering course: 2, 4, 6, 7, 8, 9

IB SOCIAL AND CULTURAL ANTHROPOLOGY (SL) (237450)

Grades: 11-12

Prerequisite: Interest in the subject

Credit: 1

IB Social and Cultural Anthropology is a college level comparative study of human societies and culture. It explores both the universal principals of social and cultural life and characteristics of specific societies and cultures. Topics include small groups, as well as kinship relations, symbolism, exchange, political organizations, social control and gender. The course examines society from the small scale to the complex industrial scale, as well as modern nation states. *The course culminates in an external assessment that provides the possibility of college credit.*

Schools offering course: 2, 5

SOCIOLOGY (2500)

Grade: 12

Prerequisite: Assignment to Grade 12

Credit: 1

Problems and issues about social behavior, organizations, and institutions of people are examined. The study includes an examination of the structure and the function of groups, the variations in the social order and the dynamics of change in a social environment. There is focus upon the development of skills for participating more effectively in contemporary society by examining issues and seeking solutions to problems involving the interactions of people.

Schools offering course: 1, 2, 3, 4, 6, 7, 8, 9, 10

TWENTIETH CENTURY HISTORY (2387)

Grades: 11-12

Prerequisite: Assignment to Grade 11

Credit: 1

The role of the United States in the modern world is explored. Emphasis is placed on the national and international issues of the 20th Century. Students will have an opportunity to engage in problem-solving and decision-making activities using a format based on research, and written and oral expression. Opportunities will be provided to develop possible resolutions to current issues confronting the nation.

Schools offering course: 3, 4, 6, 7, 8, 9, 10

SPECIAL EDUCATION

SPECIAL EDUCATION COURSES CAN FULFILL THE FOLLOWING GRADUATION REQUIREMENTS:

- Employ courses can fulfill Sequential Elective requirement
- Elective

COMPENSATORY SKILLS I (7866) COMPENSATORY SKILLS II (7867) COMPENSATORY SKILLS III (7868) COMPENSATORY SKILLS IV (7869)

Grades: 9-12

Prerequisite: Any student whose Individualized Education Program (IEP) indicates the appropriateness of the compensatory skills course offering. Students can take Compensatory Skills each year up to four years.

Credit: 1/4 per semester

Compensatory Skills is designed to provide students with individualized remediation and compensatory skills in their specific academic area(s) of need as identified through the eligibility and IEP process.

Schools offering course: All

EMPLOYMENT OPPORTUNITIES FOR YOUTH (EMPLOY)

Prerequisite: Any student who is receiving special education services and whose Individualized Education Program (IEP) and transition goals indicate the appropriateness of the EMPLOY curriculum.

EMPLOY provides special education students with skills that will facilitate their entry into suitable occupations in accordance with their individual educational needs, aptitudes, and interests.

EMPLOY I (9083)

Grades: 9-12

Credit : 1

The focus of EMPLOY I is career awareness. Students will have opportunities to learn about their personal preferences, interests, and a variety of careers and occupations, and begin to build their self-advocacy skills.

School offering courses: All

EMPLOY II (9085)

Grades: 10-12

Prerequisite: It is recommended that a student complete EMPLOY I before enrolling in EMPLOY II.

Credit: 1

The focus of EMPLOY II is the development of employability skills. Students are provided opportunities to develop communication skills, independent living skills, personal/social skills, and job search and retention skills.

Schools offering course: All

EMPLOY III (9087) & EMPLOY IV (9030)

Grades: 10-12

Prerequisite: It is recommended that a student complete EMPLOY I and/or EMPLOY II before enrolling in EMPLOY III & EMPLOY IV.

Credit: EMPLOY III - 1 credit and EMPLOY IV - 1 credit

EMPLOY III and IV are taken concurrently during the same school year with classes scheduled back-to-back periods. The focus for EMPLOY III and EMPLOY IV is to reinforce and enrich the goals of EMPLOY I and EMPLOY II, as well as vocational exploration and the development of marketable job skills.

Schools offering courses: All

EMPLOY V (9031)

Grades: 11-12

Prerequisite: It is recommended that a student complete EMPLOY I-III before enrolling in EMPLOY V. However, a student may concomitantly enroll in EMPLOY III and V.

Credit: 1

The focus of EMPLOY V is to provide students with an opportunity to apply their self-awareness, employability, self-advocacy, and life management skills in order to obtain and maintain employment. During the school year, students complete a minimum of 540 hours of continuous supervised on-the-job training. All activities are planned, supervised, and documented by the vocational resource teacher.

Schools offering course: All

EMPLOY I-IV/LIFE SKILLS (7890)

Grades: 9-12

Prerequisite: Any student who is receiving special education services and whose Individualized Education Program (IEP) indicates the appropriateness of the Life Skills course offering.

Credit: 1

The focus of Life Skills is to enhance the student's social, emotional and academic success. Students will develop and enhance communication skills, organizational/study techniques, and social intervention skills. Stress management techniques will also be taught. The students will participate in the development of a transition plan and explore skills needed for employment/post secondary education as well as for learning and self-advocacy.

Schools offering course: All

LEARNING STRATEGIES I (7897)

Grades: 9-12

Prerequisite: Any student who is receiving special education services whose Individualized Education Program (IEP) indicates the appropriateness of the Learning Strategies I course offering.

Credit: 1

The Learning Strategies classes provide direct instruction utilizing the Strategic Instruction Model (SIM), or Kansas University Strategies, to enable students to experience success in high school. The focus of the course is to provide direct, explicit instruction in academic and cooperative thinking strategies. The classes will provide instruction in a variety of strategies such as: Sentence Writing, Word ID, LINCOS, Visual Imagery and Theme Writing. It is recommended that students take Learning Strategies I in ninth grade, although it is available in Grades 9-12.

Schools offering course: All

LEARNING STRATEGIES II (7898)

Grade: 9-12

Prerequisite: Student must complete Learning Strategies I

The Learning Strategies classes provide direct instruction utilizing the Strategic Instruction Model (SIM), or Kansas University Strategies, to enable students to experience success in high school. The focus of the course is to provide direct, explicit instruction in academic and cooperative thinking strategies. The classes will provide instruction in a variety of strategies such as: Paragraph Writing, Word ID, LINCOS, Visual Imagery and Theme Writing. Students must take Learning Strategies I before Learning Strategies II. It is recommended that students take Learning Strategies I in ninth grade, although it is available in Grades 9-12.

Schools offering course: All

SOCIAL SKILLS I (7890)

Grades: 9-12

Prerequisite: Any student who is receiving special education services and whose Individualized Educational Program (IEP) indicates the appropriateness of the Social Skills I course offering.

Credit: 1

This course will provide students with direct instruction in specific social skills using the Skillstreaming and Prepare social skills programs. The purpose of this course is to increase academic achievement through the teaching and remediation of social skills. When completed, students will be able to demonstrate appropriate behavior in changing environments, effective communication skills, positive relationships with others, project a positive self-image, and utilize social skills in the learning process.

Schools offering course: All

SOCIAL SKILLS II (7892)

Grades 10-12

Prerequisite: Any student who has completed Social Skills I and whose Individualized Educational Program (IEP) indicates the appropriateness of the Social Skills II course.

Credit: 1

This course will provide students with direct instruction in a higher level of specific social skills than introduced in Social Skills I, including Skillstreaming, anger control, and decision making from the Prepare curriculum. The purpose of this course is to increase academic achievement through the teaching and refining of social skills. Students will be able to demonstrate appropriate behavior in changing environments, effective communication skills, positive relationships with others, project a positive self-image, and utilize social skills in the learning process.

Schools offering course: All

STUDENT ASSISTANTS

STUDENT ASSISTANT FOR SPECIAL EDUCATION (780020)

Grades: 9-12

Prerequisite: Teacher recommendation

Credit: 1/2 (36 weeks)

The Student Assistant for Special Education course offers the general education student the opportunity to learn about the field of special education while assisting a special education teacher. Students will be introduced to a professional and practical experience in working with students with disabilities who require special education. The course may be taken more than once for credit with prior approval of the special education department chairperson.

Schools offering course: 1, 2, 3, 4, 5, 6, 7, 8

PHYSICAL EDUCATION ASSISTANT (764020)

Grades: 11-12

Prerequisite: Successful completion with a "B" average or better in Health and Physical Education I and II; approval of the department chairperson and the teacher being assisted

Credit: 1/2

This course offers opportunities for further positive learning experiences for the student who is interested in pursuing a career in Health and Physical Education. Emphasis is placed on assisting in the instructional program. This course may be taken more than once for credit.

Schools offering course: 1, 2, 3, 4, 6, 7, 8

LAB ASSISTANT/LIBRARY ASSISTANT (1600)

Grades: 10-12

Prerequisite: None

Credit: 1/2 (36 weeks)

Students are trained to assist the library staff in maintaining the library program. Students are under the supervision of the librarian(s) but must be able to work independently to perform duties and carry out responsibilities as assigned. Basic duties may include assisting patrons in various capacities; circulation of books; knowledge of the computer databases; ability to evaluate websites; use of A/V equipment and duties as assigned by the librarian. This course may be taken more than once for credit.

Schools offering course: 1, 2, 3, 4, 5, 7, 8

LAB ASSISTANT/SCIENCE SEMINAR (461000)

SCIENCE TEACHER'S AIDE (0143)

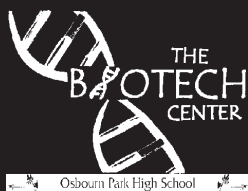
Grades: 10-12

Prerequisite: Successful completion of subject in which assisting and prior approval of supervising teacher

Credit: 1/2 for 461000; none for 0143

Lab Assistant/Science Seminar offers the student the opportunity to learn more science while assisting a science teacher. The instructional objectives vary according to the course in which the student is assisting and according to the program, interests, and ability of the student. This course may be taken more than once for credit with prior approval of the science department chairperson. *To earn credit for Lab Assistant, instructional objectives and evaluative criteria must be delineated as per Regulation 681-3, Section III.C.*

Schools offering course: 461000: 1, 2, 4, 5, 6, 7, 8, 9, 10; 0143 only: 3



THE BIOTECHNOLOGY CENTER AT OSBOURN PARK SENIOR HIGH SCHOOL

Biotechnology and closely related fields may comprise the largest growth industry in our country as well as in Prince William County. A few years ago Governor Mark Warner, created a task force to make the Commonwealth of Virginia a center for the biotechnology industry. We at Osbourn Park know that we can participate in this revolution by playing a small but significant roll in preparing our students for exciting educational and vocational opportunities for the not too distant future.

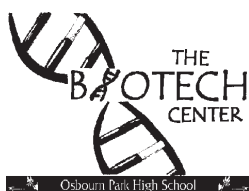
The Biotechnology Center is a four-year program of study for academically motivated students with interests in health sciences and related fields. This rigorous program of studies emphasizes the broad understanding of theory and the application of science to real world issues. It provides students with opportunities to pursue authentic and meaningful, hands-on research projects. The Biotechnology Program also provides students a rich environment of integrated humanities and the opportunity to enroll in a variety of Advanced Placement (AP) science courses.

Key elements of the Biotech Program include:

- Specialized program science courses in biology, chemistry, earth science and physics;
- During grades 9 and 10, social studies and English classes are combined in an interdisciplinary instructional block in which students examine history, literature, art, architecture, music and philosophy and the influences of science and technology on each;
- A wide variety of science choices that include both year-long courses as well as single semester high interest classes;
- Advanced Placement (AP) courses in Biology, Chemistry, Environmental Science, and Physics that provide the opportunity to earn college credits while still in high school;
- Science-related extracurricular and co-curricular community activities and partnerships; and
- A year-long senior independent research/mentorship project in a concentrated area of study.

PROGRAM REQUIREMENTS

Students must be enrolled in at least one Biotechnology Center science class each year and must earn a “C” grade or higher in that class to stay in the program. In order to receive **The Biotechnology Center Certificate**, students must successfully complete at least 7 year long science classes with at least a “C” grade. These classes must include Biology, Chemistry, Physics, one Advanced Placement (AP) science class and either a second AP science class or the Senior Independent Research Class. Students are also required to complete and document 100 hours that represent an array of extra and co-curricular efforts that support the program goals and relate to their sub-discipline area of concentration. Students can also opt to pursue a spectrum of Advanced Placement science courses and single semester biotech class offerings.



The following schematic reflects **2 sample** frameworks for a Biotech four year course of study. Units of credit for each course are also indicated. Bolded courses indicate Advanced Placement. **Advanced Placement** courses provide the opportunity to earn college credits while still in high school.

GRADE 9

- (1) Pre-AP Biology
- (1) Student Elective
- (1) Pre-AP English 9
- (1) Pre-AP World History
- (1) Health and PE 9
- (1) Mathematics
- (1) Foreign Language

GRADE 9

- (1) Pre-AP Biology
- (1) Pre-AP Chemistry
- (1) Pre-AP English 9
- (1) Pre-AP World History
- (1) Health and PE 9
- (1) Mathematics
- (1) Foreign Language

GRADE 10

- (1) Pre-AP Biology or Pre-AP Chemistry
- (1) Pre-AP English 10 and
- (1) World Geography or **AP European History** or **AP Geography**
- (1) Health and PE 10
- (1) Mathematics
- (1) Foreign Language
- (1) Student Elective

GRADE 10

- (1) Intro to DNA Science and Biotechnology
- (1/2) Forensics
- (1/2) Microbiology and Bacteriology
- (1) Pre-AP English 10
- (1) World Geography or **AP European History** or **AP Geography**
- (1) Health and PE 10
- (1) Mathematics
- (1) Foreign Language

GRADE 11

- (1) SOL-Based Physics
- (1) Science Elective
- (1) English 11
- (1) Mathematics
- (1) Virginia and U.S. History
- (1) Foreign Language
- (1) Student Elective

GRADE 11

- (1) SOL-Based Physics
- (2) **AP Biology** and **Biology Lab**
- (1) **AP English 11** or English 11
- (1) Mathematics
- (1) **AP U.S. Virginia and History** or U.S. History
- (1) Student Elective

GRADE 12

- (1) Senior Independent Research Credit
- (1) **AP Environmental Science**
- (1) Science Elective
- (1) English 12
- (1) Mathematics
- (1) Virginia and U.S. Government
- (1) Student Elective

GRADE 12

- (1/2) Human Anatomy
- (1/2) Biomedical Technology
- (2) **AP Chemistry** and **Chemistry lab** or **AP Physics** and **Physics lab**
- (1) **AP English** or English 12
- (1) Mathematics
- (1) **AP Government and Politics:U.S.** or Virginia and U.S. Government
- (1) Student Elective



Osborn Park High School

The following courses are designated as Biotechnology Center courses:

COURSE	COURSE CODE	PAGE	COURSE	COURSE CODE	PAGE
Scientific Illustration	912040	43	Pre-AP Biology	431000	69
Biomedical Technology	834531	24	Introduction to Microbiology and Bacteriology	461034	75
Human Anatomy and Physiology	834532	24	Pre-AP Chemistry	441001	69
Pre-AP English 9	113001	28	Biology II: Introduction to DNA Science and Biotechnology	435030	74
Pre-AP English 10	114001	28	Senior Independent Research	461033	75
Earth Science II: Astronomy	426020	73	Introduction to Forensic Science	461035	75
Advanced Earth Science	42000	68	AP Human Geography	2212	78
Earth Science II: Oceanography	425020	73	Pre-AP World History and Geography from 1500	222101	77

The following courses are designated as weighted Biotechnology Center courses:

COURSE	COURSE CODE	PAGE
Advanced Placement Physics B	457020	70
Advanced Placement Physics C	457000	70
Advanced Physics Laboratory	457520	70
Advanced Placement Environmental Science	427020	70
Advanced Placement Biology	437020	69
Advanced Biology Laboratory	437520	69
Advanced Placement Chemistry	447020	69
Advanced Chemistry Laboratory	447520	69



THE CENTER FOR ENVIRONMENTAL & NATURAL SCIENCES AT FREEDOM HIGH SCHOOL

The Center for Environmental and Natural Sciences (CENS) specialty at Freedom High School offers a rigorous four-year program of studies designed to include strong laboratory and field investigation components. The curriculum is integrated with other educational disciplines so that students gain a greater understanding of the relationships between environmental and natural sciences and these disciplines, as well as appreciate its connection with every day life.

The program emphasizes interactive science research and projects that make use of the on-site CENS lab, greenhouse, aquarium, diverse habitats, and wet pond. Students participate in co-curricular and extra curricular activities, including community service, and will become involved with business and community partnerships that enhance their understanding of environmental and natural sciences. The program of studies includes a sequence of required CENS science courses, advanced English and social studies classes, and a strong mathematics sequence.

Specialized components of the Center for Environmental & Natural Sciences Program include:

- Advanced science courses in Earth Science, Biology, Chemistry, Physics, Ecology, Environmental Science, and Independent Research;
- During grades 9 and 10, students will take Pre-AP social studies and English classes which provide interdisciplinary lessons and projects that examine history, literature, art, architecture, music and philosophy and the influences of science and technology on each;
- Advanced Placement (AP) courses in Biology, Chemistry, Environmental Science, Physics and Human Geography that provide the opportunity to earn college credits while still in high school;
- On-site greenhouse, aquarium, wet pond, native habitat trail, mobile computer lab, and environmental & natural sciences lab;
- Science-related extracurricular and co-curricular community activities, as well as partnerships with businesses and academia; and
- A year-long senior independent research/mentorship project in a concentrated area of study.

CENS PROGRAM REQUIREMENTS

Student must be enrolled in at least one CENS science class each year. In order to receive **The Center for Environmental & Natural Sciences Honors Certificate**, the student must successfully complete at least 7 year long science classes with a final grade of B or higher. These classes must include advanced Earth Science, Pre-AP Biology, Pre-AP Chemistry, CENS Science Electives, AP Environmental Science, and the **Senior Independent Research Class** or another AP science class. CENS Honors students are also required to complete and document 100 hours that represent an array of extra and co-curricular efforts that support the CENS program goals and objectives. CENS Merit and Participation Certificates will also be awarded to students that achieve those specified requirements.



The following are **sample** sequences for a four-year course of study in the Center for Environmental & Natural Sciences Program. Units of credit for each course are indicated and courses presented in bold type are Advanced Placement. **Advanced Placement** courses provide the opportunity to earn college credits while still in high school.

GRADE 9

- (1) Advanced Earth Science (CENS)
- (1) Pre-AP English 9
- (1) Pre-AP World History and Geography from 1500 to present
- (1) Mathematics
- (1) Foreign Language
- (1) Health and PE 9
- (1) Student Elective

GRADE 10

- (1) Pre-AP Biology (CENS)
- (1) Pre-AP English 10
- (1) **AP Human Geography**
- (1) Mathematics
- (1) Foreign Language
- (1) Health and PE 10
- (1) Student Elective

GRADE 11

- (1) Pre-AP Chemistry (CENS)
- (1) **AP English Language and Composition**
- (1) **AP Virginia and US History** or Virginia and US History
- (1) Mathematics
- (1) Foreign Language
- (1) CENS Science Elective (Biology II, Physics I, or CENS Oceanography)
- (1) Student Elective

GRADE 12

- (1) **AP Environmental Science**
- (1) **AP English Literature and Composition**
- (1) **AP Government** or Virginia and US Government
- (1) Mathematics
- (1) **Senior Independent Research Class** or **AP Science Elective**
- (1) CENS Science Elective
- (1) Student Elective

GRADE 9

- (1) Advanced Earth Science (CENS)
- (1) Pre-AP English 9
- (1) Pre-AP World History and Geography from 1500 to present
- (1) Mathematics
- (1) Foreign Language
- (1) Health and PE 9
- (1) Pre-AP Biology (CENS)

GRADE 10

- (1) Pre-AP Chemistry (CENS)
- (1) Pre-AP English 10
- (1) **AP Human Geography**
- (1) Mathematics
- (1) Foreign Language
- (1) Health and PE 10
- (1) CENS Biology II Ecology, Physics I, or CENS Oceanography

GRADE 11

- (2) CENS Science Elective (**AP Biology or AP Chemistry**)
- (1) **AP English Language and Composition**
- (1) **AP Virginia and US History** or Virginia and US History
- (1) Mathematics
- (1) Foreign Language
- (1) Student Elective

GRADE 12

- (1) **AP Environmental Science**
- (1) **AP English Literature and Composition**
- (1) **AP Government** or Virginia and US Government
- (2) **AP Science Elective (AP Biology, AP Chemistry or AP Physics)**
- (1) Mathematics
- (1) Student Elective



The following courses are part of the Center for Environmental & Natural Sciences curriculum:

COURSE	COURSE CODE	PAGE	COURSE	COURSE CODE	PAGE
Scientific Illustration	912040	42	AP Chemistry	447020	69
Pre-AP English 9	113001	28	Senior Independent Research (CENS)	461033	75
Pre-AP English 10	114001	28	Earth Science II: CENS Oceanography	425020	73
Advanced Earth Science	421000	68	AP Biology	437020	69
Pre-AP Biology I	431000	69	SOL-Based Physics	451020	68
Pre-AP Chemistry I	441001	69	AP Physics B	457020	70
Biology II: Ecology	434033	74	Pre-AP World History and Geography from 1500 to present	222101	77
AP Environmental Science	427020	70	AP Human Geography	2212	78

The following courses are designated as weighted CENS Science courses:

COURSE	COURSE CODE	PAGE
Advanced Placement Environmental Science	427020	70
Advanced Placement Chemistry	447020	69
Advanced Chemistry Laboratory	447520	69
Advanced Placement Biology	437020	69
Advanced Biology Laboratory	437520	69
Advanced Placement Physics B	457020	70
Advanced Placement Physics Laboratory	457520	70



THE CENTER FOR FINE & PERFORMING ARTS AT WOODBRIIDGE HIGH SCHOOL

The purpose of the Center for the Fine and Performing Arts program is to encourage and develop creativity, self-expression, academic achievement, and critical thinking in the young artist. Upon graduation, the student will have mastered a common core of learning that supports the broader education of the artist and promotes a respect for cultural diversity. As a result of the training received in the CFPA program, the student will have the skills necessary to be successful in a college/university arts program and to become an active consumer, strong advocate, and valued participant in the larger arts community.

Students may audition to participate in one of six concentrations including: Creative Writing, Dance, Music: Instrumental, Music: Vocal, Theater, and Visual Art. The arts curriculum is enhanced through the use of visiting artists, professional master classes and concert and gallery visits. The staff seeks to maintain a nurturing environment that supports experimentation and self-assessment. To this end, we encourage both individual and group activities that sustain the contribution of the arts to the human spirit.

THE GOALS OF THE CFPA PROGRAM

- To provide opportunities for arts-integrated learning.
- To encourage critical thinking through complex problem solving.
- To promote a supportive atmosphere conducive to artistic expression.
- To provide cultural enrichment activities.
- To prepare students for entry into college or university arts programs and careers.
- To offer quality curriculum and instruction which promotes the development of the complete student.
- To encourage partnerships with local artists and arts organizations

PROGRAM REQUIREMENTS

- Participate in an entrance audition.
- Complete a minimum of 6 credit hours in the arts (5 for those entering as sophomores).
The credits should be in the student's Concentration Area.
- Earn a minimum of 100 points of extracurricular activities such as small ensemble festival, music seminars, out-of-school concert attendance, gallery visitation, literary/arts magazine publications and coffee house.
- Prepare and present a portfolio of works or performance jury at the end of grades 9, 10 and 11.
- Successfully participate in the Senior Showcase and present final portfolio.
- Achieve and maintain a 3.0 grade point average in the Concentration Area and 2.0 overall.

CFPA SEQUENCE OF STUDIES

REQUIRED ELECTIVES

	GRADE 9	GRADE 10	GRADE 11	GRADE 12
Creative Writing	Creative Writing Exploration	Creative Writing I	Genre Focus(.5) Genre Focus (.5); C.W. Elective(.5) C.W. Elective (.5)	Adv. Genre Focus(.5) Adv. Genre Focus(.5); Portfolio & Marketing(.5) C.W. Elective (.5)
Dance	Dance Technique I	Dance Technique II	Dance Technique III; Jazz(.5) & Modern(.5)	Dance Technique IV; Composition(.5) & Repertory(.5)
Instrumental Music+	**Ensemble	**Ensemble	**Ensemble; Chamber Music or Piano *Piano is an exit requirement	**Ensemble; Theory, or Advanced Music Technology
Vocal Music+	**Ensemble +Music Seminar	**Ensemble +Music Seminar	**EnsemblePiano* or Music Technology *Piano is an exit requirement	**Ensemble; AP Music Theory
Music Technology	* Ensemble	**Ensemble	**Ensemble Music Technology	Advanced Music Technology AP Music Theory
Theater	Theater I: Intro To Theater	Exploring Performance in Theater	Theater Production; Musical Theater	Adv. Theater III; Directing for Stage and Screen (1/2), Acting Shakespeare (1/2)
Visual Arts	CFPA Art I	CFPA Art II	Portfolio Preparation; Period Art Seminar (1/2) Studio Art Seminar(1/2) or Computer Art or Photography I	AP Studio Art or Computer or Photography I Studio Art Seminar (1/2) Studio Art (1/2)

**By Audition

Concert Band, Symphonic Band, Varsity Orchestra, Concert Orchestra, Sinfonietta, Varsity Choir, Men's Choir, Concert Choir, Woodbridge Singers. (Marching and Jazz Band may be used to fill **one** art credit.)

+All Music students must participate in 4 seminars per year. The seminars are held after school for participation points only.

CFPA CORE COURSES

- Pre-AP English 9 **113001**
- Pre-AP English 10 **114001**
- AP English – Language and Composition **119620**
- AP English – Literature and Composition **119520**
- Pre-AP World History from 1500 **222101** (Grade 9)
- World Geography **221020** (Grade 10) or AP European History **239920**
- Virginia & US. History **236070** (Grade 11)
- AP Government **244520** (Grade 12) or Virginia & US Government **2440**

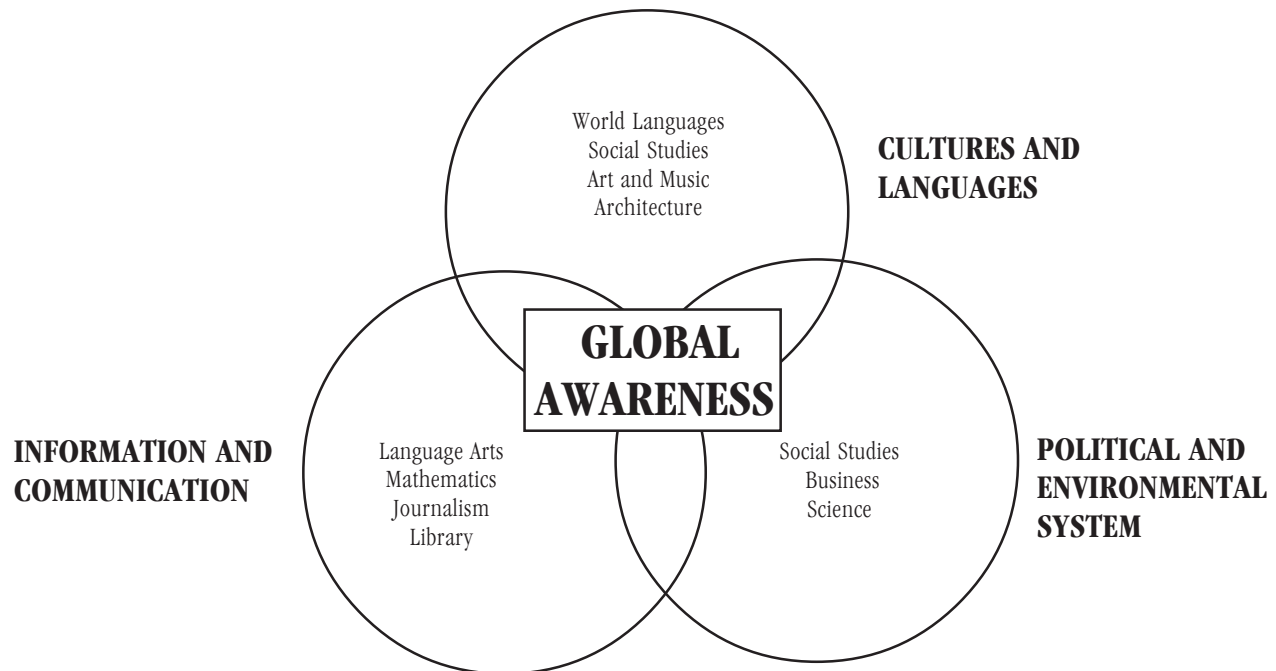
The following courses are designated as CFPA Program electives:

COURSE	CODE	PAGE	COURSE	CODE	PAGE
Art I (CFPA)	912060	44	Dance I	930460	37
Art II (CFPA)	913060	44	Dance II	930660	37
Art Portfolio Preparation	914701	42	Dance III	930860	37
AP Studio Art I	914920	43	Dance IV	930960	37
Computer Art	918021	42	Dance Composition*	932160	37
Media & Design: Painting I*	919961	44	Repertory*	932360	37
Media & Design: Sculpture I*	919962	44	Jazz Dance*	931760	38
Studio Art Seminar*	919963	44	Modern Dance*	931160	38
Period Art Seminar*	919964	44	Int. Band	9233	39
Creative Writing Exploration	117160	32	Adv. Band	9234	39
Creative Writing I	117120	31	Int. Orchestra	923800	38
Genre Focus: Short Story*	151561	32	Adv. Orchestra	9239	38
Genre Focus: Nonfiction *	151562	32	Orchestra Ensemble	9251	38
Genre Focus: Poetry*	151563	33	Men's Choir	9282	39
Genre Focus: Script Writing*	151564	33	Women's Chorale	928100	39
Short Story II*	151661	33	Concert Choir	9289	39
Nonfiction II *	151662	33	Vocal Ensemble (Woodbridge Singers)	9280	39
Poetry II *	151663	33	Class Piano	9255	38
Script II: Stage*	151664	33	Music Theory I	9225	38
Script II: Screen & Broadcast*	151665	33	Music Technology	929760	40
Novel *	151666	34	Advanced Music Technology	929860	40
Creative Writing Seminar*	151566	34	AP Music Theory	922660	40
Creative Writing Publication	117761	34	Chamber Music	925320	38
Interdisciplinary Literary Arts	151568	34	Photography I	919320	42
Creative Writing Independent Study	151567	34			
Theater I Introduction	141062	40			
Exploring Performance Theater	141062	40			
Theater Production	143561	41			
Musical Theater	143062	41			
Adv. Performance Theater III	143063	41			
Directing For Stage and Screen*	144060	41			
Acting Shakespeare*	143021	41			

* 1/2 credit

CENTER FOR INTERNATIONAL STUDIES AND LANGUAGES

THE CISL PROGRAM – AN INTEGRATED CURRICULUM OF LEARNING



The Center for International Studies and Languages (CISL)

allows students the opportunity to follow a comprehensive interdisciplinary program of study in pursuit of global awareness. The program advances students' understanding of global issues and is structured around three curricular areas of emphasis:

- **Cultures and Languages**
- **Information and Communication**
- **Political, Economic, and Environmental Systems**

The program also enhances classroom experiences with supporting field experiences such as student exchanges, Model United Nations, and foreign travel. Those students who successfully complete the program will receive a CISL certificate to accompany the advanced studies graduation diploma.

Students in the CISL program participate in the Advanced Placement program which gives them the opportunity to earn credit or advanced standing at the college level.

COURSE REQUIREMENTS

The academic program requires students to take a minimum of twenty credit hours, including a minimum of four Advanced Placement courses, that are designated as CISL courses. Sixteen of these hours are core courses, and at least three credit hours of qualifying electives must be taken. The program has been carefully defined so that students can fulfill the program requirements but maintain the flexibility to participate in any of the other outstanding elective offerings at Hylton, such as art and music.

Students are expected to demonstrate a working knowledge of a primary world language in an exit interview during the second semester of their final year of world language study. Also, a twelve-page research paper on a foreign affairs issue is required as part of the CISL capstone course (AP Government and Politics: Comparative) for successful completion of the CISL program.

Students are expected to maintain an overall 3.0 GPA with no grade below a "C" in any CISL designated course.

CISL REQUIRED CORE COURSES (seventeen credits)

- World Languages – four years in one language when available: choice of French, German, Italian, Latin, Russian or Spanish. Students are strongly recommended to take five years.
- Pre-AP English 9
- Pre-AP English 10
- AP English Language and Composition *or* English 11
- AP English Literature and Composition *or* English 12
- Pre-AP World History and Geography from 1500
- World Geography *or* AP Human Geography
- AP Government and Politics: Comparative (capstone course, grade 11 or 12)
- AP United States History *or* U.S. and Virginia History
- AP Government and Politics: United States *or* U.S. and Virginia Government
- Pre-AP Biology
- ONE of the following AP science courses: Biology, Chemistry, Environmental Science or Physics
- Higher Level Mathematics, AP Statistics or AP Economics
- Additional CISL elective or AP course in any subject area for students who choose to complete their study of a primary world language after four years. Students take an additional elective for each remaining year(s) of study at high school.

CISL QUALIFYING ELECTIVES (minimum of three additional credits from the following electives)

- AFJROTC
 - AP European History
 - AP Government & Politics
 - AP Psychology
 - Anthropology
 - Architecture
 - Art
 - Astronomy
 - Band, Orchestra or Choir
 - Chinese (On-line course)
 - Computer Math
 - Computer Science
 - Creative Writing
 - Drama/Theater Production
 - Exploratory TV
 - International Business
 - Japanese (On-line course)
 - Journalism
 - Oceanography
 - Photography
 - Sociology
 - Survey of World Music
 - Twentieth Century History
 - Video and Media Technology
- Any core course may also be taken as an elective, e.g. an additional world language

CO-CURRICULAR ACTIVITIES

The CISL Program has developed a unique relationship between the academic program and its supporting co-curricular activities. Students are required to complete one hundred points of extracurricular activities involved in increasing global awareness and promoting global understanding. Though not required, international travel and participation in exchange programs are strongly encouraged.

Examples of Co-curricular Activities:

- CISL Conference, Speaker & Seminar Programs
- Foreign Language Tutoring & Outreach Programs
- Model United Nations Conference Participation
- Intensive World Language & Cultural Programs

A TYPICAL PROGRAM OF STUDY FOR A STUDENT IN THE CISL PROGRAM

Grade 9:

Pre-AP English 9
Pre-AP World History and Geography from 1500
World Language (primary)
Math Sequence
Pre-AP Biology I
Health and P.E. I
Fine or Practical Arts Unit

Grade 11:

AP English Language and Composition
AP United States History
World Language (primary)
Math Sequence
AP Science
CISL Elective
CISL Elective

Grade 10:

Pre-AP English 10
World Geography or AP Human Geography
World Language (primary)
Math Sequence
Science
Health and P.E. II
CISL Elective

Grade 12:

AP English Literature and Composition
AP Government and Politics: United States
World Language (primary)
Math Sequence
Science
AP Government and Politics: Comparative
Elective

The following courses are designated as CISL Program courses:

COURSE	COURSE CODE	PAGE	COURSE	COURSE CODE	PAGE
International Business and Marketing	614870	16	Chinese I (Mandarin)	581070	46
Architectural Drawing/ Design/CAD	843700	19	Italian I	574000	46
Pre-AP English 9	113001	28	Italian II	575000	46
Pre-AP English 10	114001	28	Italian III	576000	47
Creative Writing I	117120	31	Computer Math	318400	65
Creative Writing II	117720	31	Choir/Band/Orchestra	9285/9232/9238	38 & 39
Journalism	120020	31	Oceanography	425020	73
An Introduction to Speech Communication	130020	31	Pre-AP Biology	431000	69
			Astronomy	426020	73
Russian I	541070	46	Sociology	2500	81
Russian II	542070	47	Pre-AP World History and Geography from 1500	222101	77
Russian III	543070	47	World Geography or AP Human Geography	2210/2212	77 & 78
			Twentieth Century History	2387	81
			Anthropology	237470	79

COURSE	COURSE CODE	PAGE	COURSE	COURSE CODE	PAGE
AP Studio Art (Drawing)	915020	43	AP Chemistry	447020	69
AP English Language and Composition	119620	29	AP Environmental Science	427020	70
AP English Literature and Composition	119520	29	AP Physics C Mechanics	457000	70
AP French Language	517020	50	AP United States History	231920	78
AP Spanish Language	557020	50	AP European History	239920	77
AP Spanish Literature	558020	50	AP Government and Politics: United States	244520	78
AP Latin IV : Vergil	537000	50	AP Human Geography	221220	78
AP Statistics	319220	62	AP Economics	280120	79
AP Computer Science	318500	65	AP Psychology	290320	80
AP Biology	437020	69	AP Government and Politics: Comparative	245020	78



INFORMATION TECHNOLOGY PROGRAM BATTLEFIELD HIGH SCHOOL FOREST PARK HIGH SCHOOL

The Information Technology (iT) Program is a rigorous and challenging course of study for academically and technology motivated students. The Information Technology Program will provide interested students the opportunity to become engaged in an intensive technological program of studies developed through a collaborative relationship with the business and academic community.

The ability to process and manipulate information has already become the single most important determiner of success of individuals in our technological global economy and will be a focus of the iT Program. One of the goals of the iT Program is to graduate students who are comfortable with and proficient in using information technology in all its forms so they can interact with individuals, organizations, and agencies in our technological society.

Those students who successfully complete their program of study will be eligible to receive an iT certificate to accompany the graduation diploma.

Areas of study could include:

- A series of courses for the advanced diploma student that emphasize acquiring technology skills that will prepare them to be successful in the technological global economy.
- Extracurricular programs, which would include community service through our Learn and Serve Program, internships, and mentorships.
- A series of professional certificate programs designed for the standard or advanced diploma student. These areas of study will immerse the student in a one- or two-year program of study, which after successful completion of the exam, could lead to professional/seat-hour certifications. Current areas of study are:
 - Cisco Certified Network Associate (CCNA)
 - A+ certifications
 - Oracle Certified Professional
 - Microsoft Certified Systems (MCSA, MCSE)
 - Certified Internet Webmaster (CIW)
 - Computer Graphics seat-hour certifications
 - Multimedia seat-hour certifications

Battlefield High School and Forest Park High School offer unique specialty programs within the information technology field. The following is a number of suggested sequences that will prepare students for certification of advanced areas of study. Individual schedules should be developed with the help of teachers, guidance counselors, and the iT Coordinator.

IT SEQUENCES

IT Classes and Suggested Sequences
Student must be enrolled in IT program to take any IT class.

INTERACTIVE MEDIA

9 th grade	915381	IT Graphic Design
10 th grade	918080	IT Computer Graphics I
11 th grade	918081	IT Multimedia Software Design and Development I
	918180	IT Computer Graphics II
12 th grade	918181	IT Multimedia Software Design and Development II
	9148	AP Studio Art (2-D Design)
	982020	Learn and Serve

NETWORK SYSTEMS

9 th grade	667080	Information Technology Foundations
10 th grade	665181/82	IT Essentials I, II
11 th grade	854291/854392	Computer Networking Hardware Operations I/II (Cisco)
	665080	Computer Network Software Operations (Microsoft)
12 th grade	854491/854592	Computer Networking Hardware Operations III/IV (Cisco)
	665180	Advanced Computer Network Software Operations (Microsoft)
	982020	Learn and Serve

PROGRAMMING & DATABASE MANAGEMENT

9 th grade	318480	Advanced Computer Mathematics
	667080	Information Technology Fundamentals
10 th grade	318500	AP Computer Science A
	663080	IT Design/Multimedia/Web Technologies (CIW)
11 th grade	318560	AP Computer Science AB
	666080	Database Design and Management (Oracle)
	663180	IT Advanced Design/Multimedia/Web Technologies (CIW)
12 th grade	666180	IT Advanced Database Design and Management (Oracle)
	664080	IT Web Programming
	319902	Advanced Computer Studies
	317720	AP Calculus AB
	317760	AP Calculus BC
	982020	Learn and Serve

Standard IT Certificate: Students will receive a Standard IT certificate and silver medal if they complete four IT classes with a 2.0 GPA and no grade below a 2.0 in any IT class. Students must be enrolled in at least one IT class each year.

Advanced IT Certificate: Students will receive an Advanced IT certificate and gold medal if they complete six IT courses with a 3.0 overall GPA with no grade below a 3.0 in any IT class. Students must be enrolled in at least one IT class each year.

The following courses are designated as Information Technology Program courses:

COURSE	COURSE CODE	PAGE
IT Computer Graphics I, II	918080 918180	45
IT Graphic Design	915381	45
IT Multimedia Software Design and Development I, II	918081 918181	45
IT Photography	919380	45
Computer Network Software Operations ADV Computer Network Software Operations	665080 665180	16
IT Database Design & Management IT ADV Database Design & Management	666080 666180	17
Information Technology Fundamentals	667080	16
IT Design/Multimedia/Web Technologies IT Advanced Design/Multimedia/Web Technologies	663080 663180	15
IT Web Programming	664081	15
IT Essentials I, II	665181 665182	22 & 23
Computer Networking Hardware Operations I, II, III, IV	854291 854392 854491 854592	23
Challenges of Engineering/Robotics I/II	849080 849180	20
ADV Computer Mathematics	318480	65
ADV Computer Studies	319902	66
AP Calculus AB	317720	62
AP Calculus BC	317760	62
AP Computer Science A AP Computer Science AB	318500 318560	65
AP Studio Art (2-D Design)	914800	42
AP Studio Art (Drawing)	915020	43
Learn and Serve	982020	80

The following courses are designated as weighted Instructional Technology Program courses:

COURSE	COURSE CODE	PAGE
IT Advanced Database Design & Management	666180	17
Advanced Placement Calculus AB	317720	62
Advanced Placement Calculus BC	317760	62
Advanced Placement Computer Science A	318500	65
Advanced Placement Computer Science AB	318560	65
Advanced Placement Studio Art (2-D Design)	914800	42
Advanced Placement Studio Art (Drawing)	915020	43
IT Database Design and Management	666080	17
Computer Networking Hardware Operations I, II, III, IV	854292 854392 854491 854592	23



THE CAMBRIDGE PROGRAMME

BRENTSVILLE DISTRICT HIGH SCHOOL

POTOMAC SENIOR HIGH SCHOOL

The Cambridge Programme offers an international, pre-university curriculum and examination system that emphasizes the value of a broad and balanced education for academically able students, as well as testing whether students can recall information and present it in an orderly manner. The Cambridge curriculum encourages the development of oral and practical skills, an investigative approach, the use of initiative to solve problems, the application of skills, knowledge and understanding, and the ability to undertake individual projects and work as part of a team. A range of assessment tools is used. Emphasis is placed on the use of externally marked examination papers by the University of Cambridge International Examinations and on compulsory practical work where appropriate. An important principle of this examination system is that students are rewarded for positive achievement – what they know, understand, and can do – rather than being penalized for an accumulation of errors.

The International General Certificate of Secondary Education (IGCSE) is a two-year curriculum that provides a strong preparation for higher level courses. These courses are generally appropriate for ninth and tenth grade students. For most of the IGCSE courses, students are required to sit for external examinations administered by the University of Cambridge International Examinations. Upon successful completion, students will receive individual subject certificates. Students who earn seven IGCSE qualifications, two within Group I (Languages) and at least

one in each of the other syllabus groups (Group II: Humanities and Social Sciences, Group III: Sciences, Group IV: Mathematics, and Group V: Creative, Technical and Vocational) can earn an International Certificate of Education (ICE).

The Advanced International Certificate of Education (AICE) Diploma is a two-year curriculum designed to build on IGCSE qualifications that may lead to college credit(s). These courses are appropriate for eleventh and twelfth grade students. The AICE course of study aims to provide a broad and international pre-university curriculum, equip students to cope successfully with the demands of higher education, provide professional assessment of student performance on internationally recognized standards of achievement, increase appreciation of world cultures, and create positive learning experiences for students. AICE subjects can be taken in two ways: as individual subject examinations or as qualifications towards the AICE Diploma. To qualify for the AICE diploma students must earn six credits with at least one credit from each of the following three curriculum areas: Group A: Mathematics and Science, Group B: Languages, and Group C: Arts and Humanities. Students who meet the requirements of this group award will receive an AICE Diploma at one of three levels: Pass, Merit or Distinction. **All AICE courses require students to sit for external examinations administered by the University of Cambridge International Examinations.**

The following schematic reflects a possible four-year course of study for students in the Cambridge Programme:

GRADE 9

IGCSE Geometry
 IGCSE Biology
 IGCSE English 9
 World History from 1500
 Foreign Language Level II
 Health and P.E. I

Suggested electives:

Art I
 Music
 Word Processing
 Discover Family/Consumer Science

GRADE 10

IGCSE Algebra II/Trigonometry
 IGCSE Chemistry and/or IGCSE Physics
 IGCSE English 10
 IGCSE World Geography
 IGCSE Foreign Language Level III
 Health and P.E. II

Suggested electives:

IGCSE Art & Design
 IGCSE Music Studies
 IGCSE Information Technology
 IGCSE Child Development

GRADE 11

AICE Mathematics I
 AICE Biology, Chemistry or Physics¹
 AICE English Language and Composition
 AICE U.S. History
 AICE Foreign Language Level IV

Electives leading to the AICE Diploma:

AICE Art & Design
 AICE Computing
 AICE Engineering Technology
 AICE Environmental Management
 AICE International History, 1945-1991
 AICE Thinking Skills I
 AICE Psychology

GRADE 12

AICE Mathematics II
 AICE Biology, Chemistry or Physics¹
 AICE English 12 Literature
 AP U.S. Government or U.S. Government
 AICE Foreign Language Level V
 AICE Classical Studies I

Electives leading to the AICE Diploma:

AICE Art & Design
 AICE Computing
 AICE Engineering Technology
 AICE Environmental Management
 AICE International History, 1945-1991
 AICE Thinking Skills II
 AICE Psychology

¹ Students may be required to enroll in the Advanced Science Laboratory as well.

To qualify for the AICE diploma, students must earn at least six credits with at least one credit from the three groups below. Students who meet the requirements of this group award will receive an AICE Diploma at one of three levels: Pass, Merit or Distinction.

Group A: Mathematics and Sciences

AICE Biology
 AICE Chemistry
 AICE Computing
 AICE Engineering Technology
 AICE Environmental Management
 AICE Mathematics I
 AICE Mathematics II
 AICE Physics
 AICE Psychology
 AICE Thinking Skills

Group B: Languages

AICE English Language and Composition
 AICE French IV
 AICE French V
 AICE Spanish IV
 AICE Spanish IV
 AICE German IV
 AICE German V
 AICE Classical Studies

Group C: Arts and Humanities

AICE Art & Design
 AICE English Literature
 AICE International History
 AICE U.S. History
 AICE Thinking Skills
 AICE Psychology
 AICE Classical Studies

Together, the IGCSE and AICE courses constitute a fully integrated, accelerated curriculum for students in high school. The following courses are designated as International General Certificate of Secondary Education or IGCSE courses:

COURSE	COURSE CODE	PAGE	COURSE	COURSE CODE	PAGE
IGCSE Art & Design	917040	43	IGCSE Latin III	533045	51
IGCSE Child Development	823240	25	IGCSE Geometry	314340	62
IGCSE Advanced Computer Information Systems	661340	14	IGCSE Algebra II/Trigonometry	313745	62
IGCSE English 9	113040	29	IGCSE Music Studies	922240	40
IGCSE English 10	114040	29	IGCSE Biology	431040	70
IGCSE French III	513045	51	IGCSE Chemistry	441040	71
IGCSE German III	523045	51	IGCSE Physics	451040	71
IGCSE Spanish III	553045	51	IGCSE World Geography	221040	78

The following weighted courses are designated as Advanced International Certificate of Education or AICE courses:

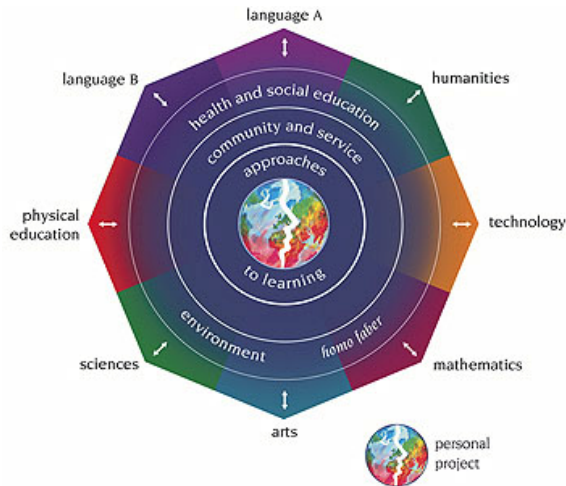
COURSE	COURSE CODE	PAGE	COURSE	COURSE CODE	PAGE
AICE Art & Design	915540	43	AICE Thinking Skills I	119740	54
AICE Engineering Technology	849140	20	AICE Thinking Skills II	119745	54
AICE English Literature	119540	29	AICE Computing	318540	65
AICE English Language & Composition	119640	29	AICE Mathematics I	317640	62
AICE French IV	515040	51	AICE Mathematics II	317740	63
AICE French V	515040	51	AICE Biology	437045	71
AICE Spanish IV	554040	51	AICE Chemistry	447040	71
AICE Spanish V	555040	51	AICE Physics	457040	71
AICE Latin IV	530540	51	AICE Environmental Management	438040	72
AICE Latin V	534040	51	AICE International History, 1945-1991	238740	80
AICE German IV	524040	51	AICE U.S. History	236041	78
AICE German V	525040	51	AICE Classical Studies	530540	51
AICE Psychology	290240	80			



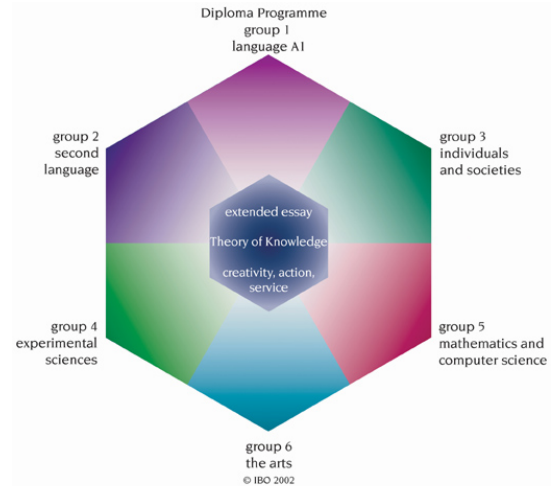
INTERNATIONAL BACCALAUREATE PROGRAMME

STONEWALL JACKSON SENIOR HIGH SCHOOL
GAR-FIELD SENIOR HIGH SCHOOL

IB Middle Years Programme Grades 9 - 10



IB Diploma Programme Grades 11 - 12



The International Baccalaureate Diploma Programme is a rigorous pre-university course of studies (leading to examinations) that meets the needs of highly motivated secondary school students in their last two years of high school. Students may work toward the full IB diploma by examining in all six-subject areas of the IB hexagon, or they may take individual classes for which they will receive IB certificates. Designed as a comprehensive two-year curriculum that allows its graduates to fulfill requirements of various national educational systems, the diploma model is based on the requirements of no single country, but it incorporates the best elements of many.

The grading system used by the International Baccalaureate Organization is criterion-referenced. This means that each student's performance is measured against well-defined levels of achievement consistent from one examination session to the next. Top grades are not simply awarded on a curve to a certain percentage of candidates but rather reflect attainment of knowledge and skills relative to established standards which are equally applied to all schools. Validity, reliability, and fairness are the watchwords of the IBO's international examining board.

Each examined subject is graded on a scale of 1 (minimum) to 7 (maximum). The award of the diploma requires students to meet defined standards and conditions including a minimum number of 24 points and to satisfactorily complete the extended essay, Theory of Knowledge (TOK) course, and Creativity, Action, Service requirements. Certificate candidates may choose individual IB courses from each subject area. Diploma candidates, however, must

choose one course from each of the six subject groups. The diploma student must take at least three but not more than four of the subjects at the higher level (HL); the other subjects will be at the standard level (SL). In addition, the diploma student must write an independent 4000-word Extended Essay, complete the Theory of Knowledge (TOK) course, and engage in 150 documented (CAS) hours.

The IB Middle Years Programme is a rigorous program of study designed for students from 11 to 16 years old, which includes 9th and 10th graders. The IB high schools offer students a five year IB MYP programme that began in middle school or a two year program in grades 9 and 10. Both of these options require community service hours and successful completion of a Personal Project which is a long-range project focused on a topic chosen by the student. Similar to the IB Diploma Program, students can elect to take selected classes to prepare them for IB Certificates in grades 11 and 12. Regardless of which option students choose, all of the MYP classes help to prepare for the IB Diploma Programme. IB MYP courses are strongly recommended to potential IB Diploma and Certificate candidates to ensure they enter the 11th and 12th grade IB courses with an adequate foundation of knowledge and skills to complete the academic requirements of the full diploma program.

Students and parents who desire more information on the IB Program are encouraged to address questions to the IB Coordinator at either school.

SEQUENCE OF MYP AND IB COURSES FOR GRADES 9-12

The following two MYP sequences are suggested for programs of study for students interested in pursuing the IB Diploma or individual IB certificates and those completing the middle years program. The MYP aims to develop internationally minded, independent learners. The program is unique in that interdisciplinary themes, or Areas of Interaction, are organizing principles for all of the classes. The Areas of Interaction include Approaches to Learning, Environment, Health and Social Education, Community and Service, and Human Ingenuity. Several modifications of the sequences are available. Individual student schedules should be developed with the help of teachers, guidance counselors, and the IB Coordinators. Students must take one credit of fine arts or practical arts as one of the free electives.

Grade 9:

IBMYP English 9
IBMYP Foreign Language Level II
IBMYP World History from 1500
IPMYP Biology
IBMYP Algebra I
IBMYP Health & P.E. I
Free Elective

Grade 10:

IBMYP English 10
IBMYP Foreign Language Level III
IBMYP/AP Government: U.S. or Comparative
IBMYP Chemistry or IBMYP Earth Science
IBMYP Geometry
IBMYP Health & P.E. II
Free Elective

Grade 9:

IBMYP English 9
IBMYP Foreign Language Level III
IBMYP World History from 1500
IBMYP Biology
IBMYP Geometry
IBMYP Health & P.E. I
IBMYP Art Elective (Music, Fine or Performing Arts)

Grade 10:

IBMYP English 10
IB Foreign Language Level IV
IBMYP/AP Government: U.S. or Comparative
IBMYP Chemistry and/or SOL-Based Physics
IBMYP Algebra II/Trigonometry
IBMYP Health & P.E. II
Free Elective

IB PROGRAM

These IB Program sequences are suggestions. Several modifications of sequences are available. Individual student schedules should be developed with the help of teachers, guidance counselors, and the IB Coordinator. Full Diploma candidates must complete three Higher Level (HL) courses and three Standard Level (SL) courses during their junior and senior years. These courses must cover the five major subject areas and one elective subject. Diploma candidates must also take IB Theory of Knowledge, complete the Extended Essay, and complete the CAS requirements.

Grade 11:

IB English I (HL)
IB Foreign Language Level IV (SL)*
IB History I (HL)
IB Biology I (HL) or IB Chemistry I (HL)
or IBMYP Chemistry
IBMYP Algebra II/Trigonometry
IB Fine Arts I (HL) or IB Elective**
Free Elective

Grade 12:

IB English II (HL)
IB Foreign Language Level V (SL)*
IB History II (HL)
IB Biology II (HL) or IB Chemistry II (HL)
or IB Environmental Systems (SL)
IB Math Studies (SL)
IB Fine Arts II (HL) or IB Elective **
IB Theory of Knowledge

Grade 11:

IB English I (HL)
IB Foreign Language Level IV (SL)*
IB History I (HL)
IB Biology I (HL) or IB Chemistry I (HL)
IB Math I (SL) or IB Math I (HL)
IB Fine Arts I (HL) or IB Elective**
Free Elective

Grade 12:

IB English II (HL)
IB Foreign Language Level V (SL)*
IB History II (HL)
IB Biology II (HL) or IB Chemistry II (HL)
IB Math II (SL) or IB Math II (HL)
IB Fine Arts II (HL) or IB Elective **
IB Theory of Knowledge

*Foreign language courses may include French, Spanish, German, and Latin

**IB electives may include Social Anthropology, Geography, Business and Organization, Computer Science, Music, Visual Arts, Theatre Arts, Information Technology in a Global Society, Psychology, *Ab Initio* Foreign Language, Physics, Economics, and Environmental Systems, and Spanish A2

The following courses are designated as IB MYP

COURSE	COURSE CODE	PAGE	COURSE	COURSE CODE	PAGE
IBMYP Art	912050	41	IBMYP Algebra II/Trigonometry	313755	63
IBMYP English 9	113051	30	IBMYP Computer Science	319950	65
IBMYP English 10	114051	30	IBMYP Band	923350	39
IBMYP French III	513255	52	IBMYP Orchestra	923850	38
IBMYP Spanish III	553255	52	IBMYP Choir	928550	39
IBMYP German III	523250	52	IBMYP Earth Science	421051	72
IBMYP Algebra I	313050	63	IBMYP Biology	431050	72
IBMYP Geometry	314350	63	IBMYP Chemistry	440151	73
IBMYP Algebra II	313551	63	IBMYP World History and Geography from 1500	222150	78
IBMYP Introduction to Speech Communication	130050	30			

The following courses are designated as weighted International Baccalaureate courses:

COURSE	COURSE CODE	PAGE	COURSE	COURSE CODE	PAGE
IB Visual Arts I (HL)	914051	44	IB Mathematics HL I	319750	64
IB Visual Arts II (HL)	914551	44	IB Mathematics HL II	319752	64
IB English I	115051	30	IB Computer Science (SL)	318551	66
IB English II	116051	30	IB Computer Science (HL)	318552	66
IB Theatre Arts (SL)	141050	41	IB Music I	922750	40
IB Theory of Knowledge	151550	54	IB Music II	922850	40
IB Latin IV	534050	52	IB Biology I (HL)	438050	72
IB Latin V	535051	53	IB Biology II (HL)	439050	72
IB French IV	514250	52	IB Chemistry I (HL)	448050	73
IB French V	515250	53	IB Chemistry II (HL)	449050	73
IB German IV	524250	52	IB Physics (SL)	458050	73
IB German V	525250	53	IB Environmental Systems (SL)	451151	72
IB Spanish IV	554250	52	IB Economics	280150	79
IB Spanish V	555250	53	IB History I:History of the Americas (HL)	236051	79
IB Spanish A2 SL	551522	53	IB History II:Topics in 20 th Century History (HL)	238750	79
IB Spanish A2 HL	556250				
IB AB Initio French I	512250	52	IB Social and Cultural Anthropology (SL)	237450	81
IB AB Initio French II	513250	52	IBMYP/AP Government and Politics: Comparative	245050	79
IB AB Initio Spanish I	552250	52	IB Geography	221050	80
IB AB Initio Spanish II	553250	52	IB Business and Management	613550	16
IB Mathematics SL I	319851	63	IB Technology in a Global Society	661350	16
IB Mathematics SL II	319852	63	IB Psychology	290350	81
IB Mathematical Studies (SL)	319650	64			

Policies regarding credit for high school courses are developed by individual colleges and universities, not by the International Baccalaureate Organization, and vary widely among different schools. Colleges and universities throughout the world recognize the IB Diploma Program. Students who wish to receive credit for their work in the IB program should consult with their counselors and the IB Coordinator for advice in planning their IB programs and planning which colleges to apply to. The more prestigious college and universities have traditionally given preference and credit to successful IB students. The official policies of over 1500 colleges and universities in North America are cited on the Internet at www.IBO.org. In addition, the breadth and intensity of the IB Program have prepared students well for pursuits in college, internships, and life-long careers.

THE VIRTUAL HIGH SCHOOL

“Achieving student success in a flexible online learning environment”

The Virtual High School @ PWCS provides a unique opportunity for students to earn high school credit in an online classroom. Students and teachers communicate primarily through Internet technologies such as e-mail, audio, video, and instant messaging. Students are provided with quality, standards based courses taught by certified teachers. All courses are aligned with PWCS and Virginia SOL objectives.

THE GOALS OF THE VIRTUAL HIGH SCHOOL ARE TO:

- Empower students to learn independently and at a flexible pace.
- Offer students an alternative to the traditional classroom.
- Enable students to fulfill course requirements and to achieve academic success.
- Allow students to *recover* credit, *earn additional* credit, or take electives.
- Prepare participating students for Virginia Standards of Learning tests.
- Enhance student use of new and emerging technologies.

STUDENT CRITERIA FOR SUCCESS IN ONLINE COURSES

- ❖ Personal commitment to learn
- ❖ Self-motivation
- ❖ Independent learner
- ❖ Computer literate
- ❖ Time management skills
- ❖ Effective written communication skills
- ❖ Computer with proper configuration

MINIMUM COMPUTER CONFIGURATION

- Pentium processor with Windows 98 or better
- Hard drive with at least 1 GB available
- 64 MB RAM
- Color monitor (16 bit)
- 8x or faster CD-ROM
- Keyboard and mouse
- Direct network connection or 56 bps modem with Internet access
- Internet provider with Netscape Communicator 4.61 or Microsoft Internet Explorer 5.0
- Sound card and speakers

The following online courses will be offered during the 2007-08 school year:

*39 is the new course extension for VHS courses

COURSE	COURSE CODE	PAGE
VHS English 9	113039	28
VHS English 10	114039	28
VHS English 11 (45 hr. research paper tutorial required)	115039	28
VHS English 12	116039	28
VHS Creative Writing I	117139	31
VHS Spanish III	553039	47
VHS Algebra I	313039	61
VHS Algebra II	313539	61
VHS Geometry	314339	61
VHS Earth Science II:Astronomy	426039	73
VHS Chemistry	441039	68
VHS Biology	431039	68
VHS Earth Science	421039	68
VHS World History and Geography from 1500	222139	77
VHS World Geography	221039	77
VHS Virginia and US History	236039	77
VHS Virginia and US Government	244039	77
VHS Health and PE I (special enrollment criteria)	730039	55
VHS Health and PE II (special enrollment criteria)	740539	55

Additional courses are being developed. Please see your guidance counselor for availability.

Students must have written approval from a parent or guardian and guidance counselor to enroll in an online course.

For more information please go to:

www.pwcs.edu/pwcsvirtualhs

VIRGINIA VIRTUAL ADVANCED PLACEMENT SCHOOL

Virtual Virginia Advanced Placement School offers 23 courses via the internet and 3 language courses via satellite. Courses taken through the VVAPS program are awarded verified credit by the students' home school.

The online courses were developed by certified teachers and the teachers conducting the courses are specifically trained in online education techniques.

Go to **<http://www.virtualvirginia.org>** to access the course catalog and program requirements.

Guidance counselor approval is required to enroll in the Virtual Virginia Advanced Placement School courses.

WEIGHTED COURSES

The courses listed below have been designated as weighted college level courses. In computing the grade point average of students who have successfully completed any of these courses, the following point values will be assigned to the course(s):

- A = 5 points
- B+ = 4.4 points
- B = 4 points
- C+ = 3.4 points
- C = 3 points
- D+ = 1.4 points
- D = 1 point
- F = 0 point

WEIGHTED ADVANCED PLACEMENT COURSES

119520	AP English – Literature and Composition	517020	AP French Language IV
119539	AP English – Literature and Composition <i>VVAPS</i>	517120	AP French Language V
119620	AP English – Language and Composition	518020	AP French Literature
119639	AP English – Language and Composition <i>VVAPS</i>	527020	AP German Language IV
221220	AP Human Geography	527120	AP German Language V
221239	AP Human Geography <i>VVAPS</i>	537000	AP Latin IV Vergil
231920	AP History –United States	538020	AP Latin V Literature
231939	AP History –United States <i>VVAPS</i>	538039	AP Latin V Literature <i>VVAPS</i>
239920	AP History – European	557020	AP Spanish Language IV
239939	AP History – European <i>VVAPS</i>	557039	AP Spanish Literature <i>VVAPS</i>
244520	AP Government and Politics: U.S.	557120	AP Spanish Language V
244539	AP Government and Politics: U.S. <i>VVAPS</i>	558020	AP Spanish Literature
245020	AP Government and Politics: Comp.	914800	AP Studio Art – 2-D Design
245039	AP Government and Politics: Comp. <i>VVAPS</i>	914920	AP Studio Art – 3-D Design
280120	AP Economics	915020	AP Studio Art – Drawing
280239	AP Economics – Micro <i>VVAPS</i>	915120	AP Art History
280339	AP Economics – Macro <i>VVAPS</i>	915139	AP Art History <i>VVAPS</i>
290320	AP Psychology	922660	AP Music Theory
290239	AP Psychology <i>VVAPS</i>		
317720	AP Calculus AB		
317739	AP Calculus AB <i>VVAPS</i>		
317760	AP Calculus BC		
318500	AP Computer Science A		
318560	AP Computer Science AB		
319220	AP Statistics		
319239	AP Statistics <i>VVAPS</i>		
427020	AP Environmental Science		
427039	AP Environmental Science <i>VVAPS</i>		
437020	AP Biology		
437039	AP Biology <i>VVAPS</i>		
447020	AP Chemistry		
447039	AP Chemistry <i>VVAPS</i>		
457020	AP Physics B		
457039	AP Physics B <i>VVAPS</i>		
457000	AP Physics C		

VVAPS – Virginia Virtual Advanced Placement School

All weighted credit is contingent upon the annual approval of Regulation 661.01-1

WEIGHTED ADVANCED INTERNATIONAL CERTIFICATE OF EDUCATION COURSES

AS = Advanced Subsidiary Level

A = Advanced Level

119540	AICE English Literature (AS Level)
119545	AICE English Literature (A Level)
119640	AICE English Language and Composition (AS Level)
236041	AICE U.S. History (AS Level)
238740	AICE International History, 1945-1991 (AS Level)
290240	AICE Psychology (AS Level)
314040	AICE Thinking Skills (AS Level)
314045	AICE Thinking Skills (A Level)
317640	AICE Mathematics I (AS Level)
317740	AICE Mathematics II (AS Level)
318540	AICE Computing (AS Level)
437040	AICE Biology (AS Level)
437045	AICE Biology (A Level)
438040	AICE Environmental Management (AS Level)
447040	AICE Chemistry (AS Level)
447045	AICE Chemistry (A Level)
457040	AICE Physics (AS Level)
514040	AICE French IV (AS Level)
515040	AICE French V (A Level)
524040	AICE German IV (AS Level)
525040	AICE German V (A Level)
520340	AICE Latin Classical Studies I (AS Level)
534040	AICE Latin V (AS Level)
554040	AICE Spanish IV (AS Level)
555040	AICE Spanish V (A Level)
849140	AICE Engineering Technology (AS Level)
915540	AICE Art and Design (AS Level)
915545	AICE Art and Design (A Level)

WEIGHTED CAREER AND TECHNOLOGY COURSES

666080	Database Design and Management
666180	Advanced Database Design and Management
843761	Civil Engineering and Architecture
844160	Principles of Engineering
854291	Network Design and Engineering I
854392	Network Design and Engineering II
854491	Network Design and Engineering III
854592	Network Design and Engineering IV
906291	Teacher Cadet

ADDITIONAL WEIGHTED COURSES

316220	Functions/Trigonometry
317620	Functions/Analytic Geometry
437520	Advanced Biology Laboratory
447520	Advanced Chemistry Laboratory
457520	Advanced Physics Laboratory
792004	Aviation Honors Ground School Program (AFJROTC)

WEIGHTED INTERNATIONAL BACCALAUREATE DIPLOMA COURSES

HL = Higher Level

SL = Standard Level

115051	IB English I (HL)
116051	IB English II (HL)
116151	IB English II (SL)
141050	IB Theatre Arts (SL)
151550	IB Theory of Knowledge
221050	IB Human Geography (SL)
236051	IB History I (HL)
237450	IB Social and Cultural Anthropology (SL)
238750	IB History II (HL)
244550	IBMYP/AP Government and Politics: US
245050	IBMYP/AP Government and Politics: Comparative
280150	IB Economics (SL)
290350	IB Psychology
318551	IB Computer Science (SL)
318552	IB Computer Science (HL)
319650	IB Mathematical Studies (SL)
319751	IB Mathematics I (HL)
319750	IB Mathematics II (HL)
319851	IB Mathematics I (SL)
319852	IB Mathematics II (SL)
438050	IB Biology I (HL)
439050	IB Biology II (HL)
448050	IB Chemistry I (HL)
449050	IB Chemistry II (HL)
451151	IB Environmental Systems (SL)
458050	IB Physics I (SL)
514250	IB French IV (SL)
515250	IB French V (SL)
515220	IB French V (HL)
524250	IB German IV (SL)
525250	IB German V (SL or HL))
534050	IB Latin IV (SL)
535051	IB Latin V (SL)
554250	IB Spanish IV (SL)
555250	IB Spanish V (SL)
555220	IB Spanish V (HL)
551522	IB Spanish A2 (SL)
551525	IB Spanish A2 (HL)
613550	IB Business and Management (SL)
661350	IB Information Technology in a Global Society (SL)
913050	IB Visual Arts (SLA or SLB)
914050	IB Visual Arts I (SL)
914051	IB Visual Arts I (HL)
914551	IB Visual Arts II (HL)
922750	IB Music I (HL)
922850	IB Music II (HL)

All weighted credit is contingent upon the annual approval of Regulation 661.01-1

WEIGHTED PREREQUISITE COURSE

The courses listed below have been designated as weighted prerequisite courses. In computing the grade point average of students who have successfully completed any of these courses, the following point values will be assigned to the course(s):

- A = 4.5 points
- B+ = 3.9 points
- B = 3.5 points
- C+ = 2.9 points
- C = 2.5 points
- D+ = 1.4 points
- D = 1 point
- F = 0 points

513010 Pre-AP French III
523010 Pre-AP German III
533010 Pre-AP Latin III
553010 Pre-AP Spanish III

514010 Pre-AP French IV
524010 Pre-AP German IV
534010 Pre-AP Latin IV
554010 Pre-AP Spanish IV

513045 IGCSE French III
523045 IGCSE German III
533045 IGCSE Latin III
553045 IGCSE Spanish III

513255 IBMYP French III
513250 AB Initio French II
523250 IBMYP German III
553255 IBMYP Spanish III
553250 AB Initio Spanish II
533050 Pre-IB Latin III

ADDITIONAL WEIGHTED PREREQUISITE COURSES

The courses listed below have also been designated as weighted prerequisite courses. In computing the grade point average of students who have successfully completed any of these courses, the following point values will be assigned to the course(s):

- A = 4.5 points
- B+ = 3.9 points
- B = 3.5 points
- C+ = 2.4 points
- C = 2.0 points
- D+ = 1.4 points
- D = 1 point
- F = 0 points

313730 Pre AP Algebra II/Trigonometry
313745 IGCSE Algebra II/Trigonometry
313755 IBMYP Algebra II/ Trigonometry
318480 Advanced Computer Mathematics

CTE APPROVED PROGRAM COMPLETER OPTIONS

A **Career and Technical Education program completer** must meet the requirements for vocational concentration and all requirements for high school graduation or an approved alternative education program. For Special Education students on an I.E.P. diploma, 2 credits of classroom. Employ and one unit of the work-experience component qualify as a program completer.

COURSE CODE	PROGRAM COURSES	MINIMUM REQUIREMENT FOR COMPLETION
8006 8034 8036 8006 8034 8038	HORTICULTURE Agriculture Mechanics and Basic Horticulture Sciences and Practices Horticulture Sciences Landscaping OR Agriculture Mechanics and Basic Horticulture Horticulture Sciences Floriculture	Any two courses
6115 6320 6321 6132 6136 6612 661340 661301 6650 663001 663101 663080 663180 6120 6152 6161 6736 6730 6621 6640 664080 6641 9094 667080 614870 613550 661350 666080 666280 665080 665180 6740 6741 6742	BUSINESS AND INFORMATION TECHNOLOGY Principles of Business and Marketing Accounting Advanced Accounting Business Law* Business Management* Computer Information Systems IGCSE Information Technology Computer Information Systems, Advanced Computer Network Software Operations Design, Multimedia and Web Technologies Design, Multimedia /Web Tech., Advanced Web Technology CIW Web Technology CIW, Advanced Finance Word Processing Digital Input Technologies Legal Systems Administration* (6735=1cr) Medical Systems Administration* (6731=1cr) Office Administration Programming IT Programming Programming, Advanced Entrepreneurship Information Technology Fundamentals (667080) International Business and Marketing IB Business Management IB Information Technology in a Global Society Database Design and Management Database Design and Management, Advanced Computer Network Software Operations Computer Network Software Operations, Advanced Office Specialist I Office Specialist II Office Specialist III	Demonstrated keyboarding skills with competencies documented plus successful completion of at least two 36- week courses or semester equivalents that equal two 36- week courses. * 18 week courses
8120 8121 8130 8131 8132 8125 8160 8162	GENERAL MARKETING Marketing Co-op Marketing Occupational Marketing Co-op, Advanced Marketing Occupational, Advanced Marketing Management Internet Marketing Hotel Motel Marketing Co-op Hotel Motel Marketing Co-op, Advanced	Any two courses
8140 8145	FASHION MARKETING Fashion Marketing Co-op Fashion Marketing Co-op, Advanced	Both courses

COURSE CODE	PROGRAM COURSES	MINIMUM REQUIREMENT FOR COMPLETION
8175 8176 8177 8178	SPORTS, ENTERTAINMENT AND RECREATION MARKETING (SERM) SERM Co-op SERM Occupational SERM Co-op, Advanced SERM Occupational, Advanced	Course 8175 or 8176 AND 8177 or 8178
8490 849080 8491 849180 849140	TECHNOLOGY EDUCATION ENGINEERING Challenges of Engineering I Challenges of Engineering I/ Robotics Challenges of Engineering II Challenges of Engineering II / Robotics AICE Engineering	Two credits that include 8490 and 8491 options
8458 8472	GRAPHICS Introduction to Graphic Communications Advertisement Design	Both courses
8435 8436 843680 8437	TECHNICAL DESIGN/ ILLUSTRATION Technical Drawing/Design Engineering Drawing/Design Engineering Drawing/Design Architectural Drawing/Design	Any two courses
8425 8427	PRODUCTION TECHNOLOGY Integrated Engineering Systems Technology Advanced Integrated Engineering Systems Technology	Both courses
849060 843660 841660 843760 849160	PROJECT LEAD THE WAY (PLTW) Principles of Engineering Introduction to Engineering Design Digital Electronics Civil Engineering and Architecture Engineering Design and Development	Any two credits
8622 8623	COMPUTER SYSTEMS TECHNOLOGY Computer Systems Technology I Computer Systems Technology II	Both courses (862281 and 862282 are semester courses) Students must earn 2 credits to be a completer
849720 868801 8689 8690	TV PRODUCTIONS Video Media Technology TV Productions I TV Productions II TV Productions III	Three credits
850799 8508	AUTO TECHNOLOGY / ASE Auto Technology I Auto Technology II	Both courses

COURSE CODE	PROGRAM COURSES	MINIMUM REQUIREMENT FOR COMPLETION
8542 8543 8544 8545	NETWORK DESIGN AND ENGINEERING Computer Networking Hardware Operations I Computer Networking Hardware Operations II Computer Networking Hardware Operations III Computer Networking Hardware Operations IV	All four courses
8527 8528	COSMETOLOGY Cosmetology I Cosmetology II	Both courses
8357 8358	PRACTICAL NURSING Practical Nursing IA* Practical Nursing IB*	Both Courses * 18 week courses
8285 8286	EARLY CHILDHOOD EDUCATION Early Childhood Education I Early Childhood Education II	Both courses
8223 8225 8210 8226 8227 8228 8229 823201 823240 8219 8278 821301 906291 9072 8238 824860	FAMILY FOCUS/FACS Family Relationships* Family Relationships Individual Development Career and Life Planning* Career and Life Planning Nutrition and Wellness* Nutrition and Wellness Child Development and Parenting IGCSE Child Development Resource Management GRADS GRADS Work Study Virginia Teachers for Tomorrow Virginia Teachers for Tomorrow Internship Child Life and Literature Introduction to Fashion Design and Marketing	Completion of at least two 36- week courses or semester equivalents that equal two 36- week courses. * 18 week courses
9083 9085 9087 9030 9031	EMPLOY Employ I Employ II Employ III Employ IV Employ V	Any combination of two courses for a total of two credits.

SAMPLE COURSE SCHEDULES

Sample Course Schedule for Advanced Studies Diploma (24 standard units of credit required)

GRADE 8/9	GRADE 10	GRADE 11	GRADE 12
<p>Grade 8 Foreign Language I Algebra I</p> <p>Grade 9 English 9 Geometry Earth Science World History from 1500 Foreign Language II HPE I Elective: Art, Dance, Music, Theatre or Career and Technical Education</p>	<p>English 10 Algebra II/Trig Biology World Geography Foreign Language III HPE II Elective: Art, Dance, Music, Theatre or Career and Technical Education</p>	<p>English 11 Functions/Analytic Geometry Chemistry U.S. and Virginia History Foreign Language IV Electives: Art, Dance, Music, Theatre or Career and Technical Education</p>	<p>English 12 Calculus Computer Science Physics I U.S. and Virginia Government Foreign Language V Elective: Art, Dance, Music, Theatre or Career and Technical Education</p>
<i>All Prince William County high schools operate under a standard seven-period A/B schedule</i>			

Sample Schedule for Standard Diploma (22 standard units of credit required)

GRADE 8/9	GRADE 10	GRADE 11	GRADE 12
<p>English 9 Algebra I Earth Science World History from 1500 HPE I Elective(s): Art, Dance, Music, Theatre or Career and Technical Education</p>	<p>English 10 Geometry Biology HPE II Elective(s): Art, Dance, Music, Theatre or Career and Technical Education</p>	<p>English 11 Algebra II Chemistry U.S. and Virginia History Elective(s): Art, Dance, Music, Theatre or Career and Technical Education</p>	<p>English 12 U.S. and Virginia Government Science or Math course Elective(s): Art, Dance, Music, Theatre or Career and Technical Education</p>
<i>All Prince William County high schools operate under a standard seven-period A/B schedule</i>			

SEQUENTIAL ELECTIVES

AGRICULTURE, ENVIRONMENTAL SCIENCE & NATURAL RESOURCES – Any 2 credits

Agriculture Mechanics and Basic Horticulture Sciences & Practices (8034)
Horticulture Science (8034)
Landscaping (8036)
Floriculture Sciences (8038)

BUSINESS AND INFORMATION TECHNOLOGY Any 2 credits

Accounting (6320)
Advanced Accounting (6321)
Business Law (6132)
Business Management (6136)
Computer Information Systems (6612)
IGCSE Information Technology (661340)
Advanced Computer Information Systems (661301)
Computer Network Operations (6650)
Design, Multimedia and Web Technologies (6630)
Advanced Design, Multimedia and Web Technologies (6631)
Finance (6120)
Digital Input Technologies (6161)
Legal Systems Administration (6735, 6736)
Medical Systems Administration (6730, 6731)
Office Administration (6621)
Programming (6640)
Advanced Programming (6641)
Entrepreneurship (9094)
Information Technology Foundations (667080)
International Business and Marketing (614870)
IB Business Management (613550)
IB Information Technology in a Global Society (613550)
Database Design and Management (666080)
Computer Network Operation (665001)
Office Specialist I, II, III (6740, 6741, 6742)

MARKETING CURRICULUM – Any 2 credits

Marketing (8120*, 8121)
Advanced Marketing (8130*, 8131)
Fashion Merchandising (8140*, 8141)
Advanced Fashion Merchandising (8145*, 8146)
Sports, Entertainment & Recreation Marketing (8175*, 8176)
Adv. Sports, Entertainment & Rec. Marketing (8177*, 8178)
Internet Marketing (8125)
Marketing Management

HEALTH AND MEDICAL SCIENCE

Practical Nursing IA (8357) **and** Practical Nursing IB (8358)

ENGINEERING & INDUSTRIAL TECHNOLOGIES CURRICULUM

Technical Drawing (8435) **and one of the following:**
Engineering Drawing and Design/CAD (8436)
Architectural Drawing and Design/CAD (8437)
Challenges of Engineering I (8490)
Challenges of Engineering II (8491)
Automotive Technology I (8507)
Automotive Technology II (8508)
Integrated Engineering Systems Technology I (8425)
Integrated Engineering Systems Technology II (8427)
Computer Systems Technology I (8622)
Computer Systems Technology II (8623)

Must complete all four

Networking and Hardware Operations I (8542)
Networking and Hardware Operations II (8543)
Networking and Hardware Operations III (8544)
Networking and Hardware Operations IV (8545)

Project Lead The Way (PLTW) - Any 2 credits

Principles of Engineering (849061)
Introduction to Engineering Design (843660)
Digital Electronics (844060)
Engineering Design and Development (849160)
Civil Engineering and Architecture (843761)

COMMUNICATIONS

Introduction to Graphic Communications (8458)
Advertising Design (8472)

COSMETOLOGY

Cosmetology I (8527)
Cosmetology II (8528)

EMPLOY

Must complete two EMPLOY courses for a total of 2 credits

Employ I (9083)
Employ II (9085)
Employ III (9087)
Employ IV (9030) Coop
Employ V (9031) Coop

FAMILY AND CONSUMER SCIENCE (FACS)

Early Childhood Education I (8285)
Early Childhood Education II (8286)

OR

Child Development & Parenting (8234)
Early Childhood Education I (8285)

OR

Child Life and Literature (907220)
Virginia Teachers for Tomorrow (906291)

OR

Any combination of the Family Focus Courses that equals the equivalent of two 36-week courses

Family Relationships (8223, 8224)
Individual Development (8210)
Career and Life Planning (8226, 8227)
Nutrition and Wellness (8228, 8229)
Child Development and Parenting (8234)
IGCSE Child Development (823440)
Resource Management (8219)
GRADS (8278)
GRADS Work Study (8218)
Virginia Teachers for Tomorrow (906291)
Child Life and Literature (907220)
Introduction to Fashion Design and Marketing (824860)

FINE AND PERFORMING ARTS - Any 2 credits

Art 1 (9120)
Art 2 (9130)
Art 3 (9140)
Art 4 (9145)
Art 5 (9147)
AP Music Theory (922660)
Art Portfolio Preparation (914701)
AP Studio Art (2-D Design) (9148)
AP Studio Art (3-D Design) (9149)
AP Studio Art (Drawing) (9150)
AP Art History (9151)
Photography (9193)
Photography II (19400)

IGCSE Art and Design (917040)
ACIE Art and Design (915550)

IB Visual Arts I (914051)
IB Visual Arts II (914551)

IT Graphic Design (915381)
IT Computer Graphics I (918080)
IT Computer Graphics II (918180)
IT Multimedia Software Des and Dev I (918081)
IT Multimedia Software Des and Dev II (918181)

Dance I ((30460)
Dance II (930660)
Dance III (930860)
Dance IV (930960)

Theatre I: Introduction to Theatre (141061)
An Exploration of Performance in Theatre (141062)
IB Theatre Arts (142150)
Theatre Production (143561)
Musical Theatre (143062)
Advanced Performance Theatre III (143063)

MILITARY SCIENCE - Any 2 credits

Naval Science 1 (791311)
Naval Science 2 (791611)
Naval Science 3 (791811)

Naval Science 4 (909011)
Military Science 1 (791310)
Military Science 2 (791610)
Military Science 3 (791810)
Military Science 4 (791910)
Leadership Education I (MCJROTC) (791312)
Leadership Education II (MCJROTC) (791612)
Leadership Education III (MCJROTC) (791812)
Leadership Education IV (MCJROTC) (791912)
Aerospace Science and Leadership I (AFJROTC) (791304)
Aerospace Science and Leadership II (AFJROTC) (791604)
Aerospace Science and Leadership III (AFJROTC) (791804)
Aerospace Science and Leadership IV (AFJROTC) (791904)

ENGLISH - Any 2 credits

Creative Writing I (1171)
Creative Writing II (1177)
Creative Writing Publications (117761)
Journalism I (1200)
Journalism II (1210)
Journalism III (1211)
Photojournalism /Yearbook (1215)
Intro to Speech Communication (130020)
Short Story I (151561)
Short Story II (151661)
Script IIA (151664)
Script IIB (151665)
Poetry I (151563)
Poetry II (151663)
Nonfiction I (151562)
Nonfiction II (151662)
Novel (151666)

FOREIGN LANGUAGE/ ESOL - Any 2 credits

Any two sequential courses in one language

MATH

AP Computer Science A (318500)
AP Computer Science AB (318560)
AICE Computing (318540)
IB Computer Science SL (318551)
IB Computer Science HL (318552)

MUSIC

IB Music I (922750) **and** IB Music II (922850)
9th Grade Band(9232) and one of the following:
Intermediate Band (9233) Advanced Band (9234)
or Jazz Band (9250)
Varsity Choir (9285) and one of the following:
Adv. Varsity Choir (9286), Concert Choir (9289),
Men's Choir (9282), Treble Choir (9260),
Vocal Ensemble (9280), Women's Chorale (9281)
or Women's Chamber Choir (9284)
Orchestra and one of the following: Intermediate
Orchestra 9238), advanced Orchestra (9239) or
Orchestra Ensemble (9251)

PHYSICAL EDUCATION - Any 2 credits

Prevention and Care of Athletic Injuries II (766120)
Prevention and Care of Athletic Injuries I (766020)
Advanced PE/ Personal Fitness (764023)
Advanced PE /Weight Training (765000)

	COURSES	PAGE	9th	10th	11th	12th
AGRICULTURE	Agriculture Mechanics and Basic Plant Science	13	•			
	Horticulture Sciences	13		•	•	•
	Landscaping	13			•	•
	Floriculture Sciences	13			•	•
BUSINESS AND INFORMATION TECHNOLOGY	Principles of Business and Marketing	13	•	•		
	Word Processing	13	•	•	•	•
	Office Specialist I	13	•	•	•	•
	Office Specialist II	13	•	•	•	•
	Office Specialist III	13	•	•	•	•
	Office Administration	13		•	•	•
	Legal Systems Administration	14		•	•	•
	Medical Systems Administration	14		•	•	•
	Business Management	14		•	•	•
	Business Law	14		•	•	•
	Digital Input Technologies	14	•	•	•	•
	Accounting	14		•	•	•
	Advanced Accounting	14			•	•
	Computer Information Systems	14		•	•	•
	Advanced Computer Information Systems	14			•	•
	IGCSE Advanced Computer Information Systems	15			•	•
	Programming	15		•	•	•
	IT Web Programming	15		•	•	•
	Advanced Programming	15			•	•
	Design, Multimedia and Web Technologies	15		•	•	•
	Advanced Design, Multimedia and Web Technologies	15			•	•
	IT Design/Multimedia/Web Technologies	15			•	•
	IT Advanced Design/Multimedia/Web Technologies	15			•	•
	Cooperative Office Education	15			•	•
	Finance	16		•	•	•
	Entrepreneurship	16		•	•	•
	Computer Network Software Operations	16		•	•	•
	Advanced Computer Network Software Operations	16			•	•
	International Business and Marketing	16		•	•	•
	Information Technology Fundamentals	16	•	•		
	IB Business and Management	16			•	•
	IB Information Technology in a Global Society	16			•	•
	IT Database Design and Management (Oracle)	17			•	•
	IT Advanced Database Design and Management	17				•
Principles of Business Marketing	17	•	•			
MARKETING	Marketing	17			•	•
	Advanced Marketing	17				•
	Marketing Management	17				•
	Internet Marketing	17			•	•
	Fashion Marketing	18			•	•
	Advanced Fashion Marketing	18				•
	Sports, Entertainment, and Recreation Marketing	18		•	•	•
	Advanced Sports, Entertainment, and Recreation Marketing	18			•	•
	Hotel/Motel Marketing	18			•	•
	Advanced Hotel/Motel Marketing	18				•

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COMMUNICATIONS, ARTS AND MEDIA PRODUCTION	Introduction to Graphic Communications	18	•	•	•	•
	Advertisement Design	19		•	•	•
	Video and Media Technology (9th-10th only HHS)	19	•	•	•	•
	Television Production I	19		•	•	
	Television Production II	19			•	•
	Television Production III/Practicum	19				•
TECHNOLOGY EDUCATION	Foundations of Technology	19	•	•	•	•
	Technical Drawing	19	•	•	•	•
	Architectural Drawing/Design/CAD	19		•	•	•
	Engineering Drawing/Design/CAD	20		•	•	•
	Construction Technology	20	•	•	•	•
	Electronics Technology (*Gar-Field and Osbourn Park only)	20	*	•	•	•
	Power and Transportation Technology (*Gar-Field only)	20	*	•	•	•
	Challenges of Engineering I	20		•	•	•
	Challenges of Engineering I/Robotics	20		•	•	•
	Challenges of Engineering II	20			•	•
	Challenges of Engineering II/Robotics	20			•	•
	AICE Engineering Technology	20			•	•
	Integrated Engineering Systems Technology I (IEST)	21			•	
	Integrated Engineering Systems Technology II (IEST)	21			•	
PROJECT LEAD THE WAY (PLTW) ENGINEERING PROGRAM AT WOODBIDGE H.S.	Principles of Engineering (PLTW)	21	•	•	•	•
	Introduction to Engineering Design (PLTW)	21	•	•		
	Digital Electronics (PLTW)	21	•	•	•	•
	Civil Engineering and Architecture	21			•	•
	Engineering Design and Development (PLTW)	21				•
OCCUPATIONAL PREPARATION COURSES (I&E)	Introduction to Automotive Technology (Tech Prep)	221		•		
	Automotive Technology I (Tech Prep)	22			•	
	Automotive Technology II (Tech Prep)	22				•
	Automotive Servicing	22			•	•
	Welding I	22		•	•	•
	Welding II	22			•	•
	Welding III	22				•
	Computer Systems Technology	22		•	•	•
	Computer Systems Technology II	22			•	•
	IT Essentials I (841681) by Tech or 665181by Business	22		• Semester 1		
	IT Essentials II (841682) by Tech or 665182by Business	23		• Semester 2		
	Computer Networking Hardware Operations I	23		• Semester 1		
	Computer Networking Hardware Operations II	23		• Semester 2		
	Computer Networking Hardware Operations III	23				• Semester 1
	Networking Hardware Operations IV	23				• Semester 2
	Criminal Justice	23			•	•
	Criminal Justice II	23				•
HEALTH AND MEDICAL SCIENCE	Introduction to Health Technology	23		•	•	•
	Practical Nursing I A (18 weeks)	23				• - Adult
	Practical Nursing I B (18 weeks)	23				• - Adult
	Practical Nursing II - Adult	24				
	Health Assistant I	24			•	•
	Biomedical Technology	24		•	•	•
	Human Anatomy and Physiology			•	•	•

COURSES		PAGE	9th	10th	11th	12th	
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	Virginia Teachers for Tomorrow	24			•	•	
	Virginia Teachers for Tomorrow Internship	24				•	
	Early Childhood Education I	25		•	•	•	
	Early Childhood Education II	25			•	•	
	Child Life and Literature	25		•	•	•	
	Parenting	25	•	•	•	•	
	IGCSE Child Development	25		•	•	•	
	Nutrition and Wellness	25	•	•	•	•	
	Life Planning	25	•	•	•	•	
	Individual Development	26	•	•	•	•	
	Grads	26	•	•	•	•	
	Grads Work Study	26	•	•	•	•	
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	Introduction to Fashion Design and Marketing	26			•	•	
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	Pre-AP English 10	28		•			
	AP English Language and Composition	29			•		
	AP Literature and Composition	29				•	
	IGCSE English 9	29	•				
	IGCSE English 10	29		•			
	AICE English Language and Composition	29			•		
	AICE English Literature	29				•	
	AICE English Literature A	30				•	
	IB Middle Years Program English 9	30	•				
	IB Middle Years Program English 10	30		•			
	IB English I	30			•		
	IB English II - Standard Level	30				•	
	IB English II - Higher Level	30				•	
	IBMYP Introduction to Speech Communication	30		•	•	•	
	Creative Writing I (10th with permission)	31			*	•	•
	Creative Writing II	31				•	•
	Film Studies	31	•	•	•	•	
	Journalism I	31	•	•	•	•	
	Journalism II	31		•	•	•	
	Journalism III	31			•	•	
	Photo Journalism/Yearbook	31		•	•	•	
	Introduction to Speech Communication	31	•	•	•	•	
	Enrichment in Speech Communication	31		•	•	•	
	Global Connections in Multicultural Literature	32			•	•	
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	English 9 Seminar - Assigned based on SOL Language Arts scores	32					

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	Short Story I/Genre Focus: Short Story I	32			•	•
	Nonfiction I/Genre Focus: Nonfiction I	32			•	•
	Poetry I/Genre Focus: Poetry I	33			•	•
	Script I/Genre Focus: Script I	33			•	•
	Short Story II/Advanced Genre Focus: Short Story II	33			•	•
	Nonfiction II/Advanced Genre Focus: Nonfiction II	33			•	•
	Poetry II/Advanced Genre Focus: Poetry II	33			•	•
	Script IIA/Advanced Genre Focus: Scriptwriting for the Stage	33			•	•
	Script IIB/Advanced Genre Focus: Scriptwriting for the Screen	33			•	•
	Novel/Advanced Genre Focus: Novel	34			•	•
	Creative Writing Publications	34			•	•
	Creative Writing Seminar	34			•	•
	Creative Writing Independent Study	34				•
	Interdisciplinary Literacy Arts	34			•	•
ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL)	ESL I	35	•	•	•	•
	ESL II	35	•	•	•	•
	ESL III	35	•	•	•	•
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	ESL Math	35	•	•	•	•
	ESOL Adjunct English 9	36	•	•	•	•
	ESOL Adjunct English 10	36	•	•	•	•
	ESOL Adjunct English 11	36	•	•	•	•
	ESOL Adjunct Algebra I, Part 1	36	•	•	•	•
	ESOL Adjunct Algebra I, Part 2	36	•	•	•	•
	ESOL Adjunct Geometry	36	•	•	•	•
	ESOL Adjunct Algebra I	36	•	•	•	•
	ESOL Adjunct Algebra II	36	•	•	•	•
	ESOL Adjunct Earth Science	36	•	•	•	•
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	ESOL Adjunct World History & Geography from 1500	36	•	•	•	•
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	Dance III	37		•	•	•
	Dance IV	37			•	•
	Dance Composition I/Repertory (1 semester each)	37			•	•
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	Music History	38	•	•	•	•
	A Survey of World Music	38	•	•	•	•
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	Class Voice I, II, III	39	•	•	•	•
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	Music Technology	40			•	•
	Advanced Music Technology	40		•	•	•
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	IGCSE Music Studies	40		•	•	•
	Theatre I: Introduction to Theatre	40	•	•	•	•
	An Exploration of Performance in Theatre	40		•	•	•
	Theatre Production	41		•	•	•
	IB Theatre Arts	41			•	•
	Acting Shakespeare	41				•
	Musical Theatre	41			•	
	Advanced Performance Theatre	41			•	
	Directing for the Stage and Screen	41				•
	Art I - Basic Foundations/IBMYP Art I	41	•	•		
	Art II	41		•	•	•
	Art III	41		•	•	•
	Art IV	41		•	•	•
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	Art Portfolio Preparation	42		•	•	•
	Photography	42		•	•	•
	Photography II	42		•	•	•
	Computer Art I	42		•	•	•
	Art History	42	•	•	•	•
	Scientific Illustration	42	•	•	•	•
	AP Studio Art (2-D Design)	42	•	•	•	•
	AP Studio Art (Drawing)	43	•	•	•	•
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	AP Art History	43			•	•
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	CFPA Painting I/Media and Design:Painting	44		•	•	•
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		IT Multimedia Software Design and Development I: Academy of Multimedia I	45			•	•
		IT Multimedia Software Design and Development II: Academy of Multimedia II	45				•
		IT Photography	45			•	•
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		German I	46	•	•	•	•
		Spanish I	46	•	•	•	•
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		Spanish II	46	•	•	•	•
		Italian II	46	•	•	•	•
		Advanced French II	46	•			
		Advanced Spanish II	46	•			
		Russian II	47		•	•	•
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		German III	47	•	•	•	•
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		American Sign Language I	47	•	•	•	•
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		Spanish for Native Speakers I - Beginning Level	49	•	•	•	•
		Spanish for Native Speakers II - Intermediate Level	49	•	•	•	•
		Spanish for Native Speakers III - Advanced Level	49			•	•
	Pre-AP French Language III	49	•	•	•	•	
	Pre-AP German Language III	49	•	•	•	•	
	Pre-AP Spanish Language III	49	•	•	•	•	
	Pre-AP Latin Language III	49	•	•	•	•	
	Pre-AP French Language IV	49	•	•	•	•	
	Pre-AP German Language IV	49	•	•	•	•	
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	AP German Language	49		•	•	•
	AP Spanish Language	49		•	•	•
	AP Latin Vergil	50		•	•	•
	AP French Literature	50			•	•
	AP Spanish Literature	50		•	•	•
	AP Latin Literature	50		•	•	•
	IGCSE French III	51		•	•	•
	IGCSE German III	51		•	•	•
	IGCSE Spanish III	51		•	•	•
	IGCSE Latin III	51		•	•	•
	AICE Classical Studies	51			•	•
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	IB AB Initio French I	52			•	
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