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# PIMMIT HILLS HIGH SCHOOL

## Mission Statement

Pimmit Hills High School will promote a high quality education by focusing on the state standards of learning that lead to a Commonwealth of Virginia diploma and will encourage life-long learning.

## Vision Statement

In a non-traditional setting, Pimmit Hills High School will provide a caring, flexible, safe, and disciplined environment. It will facilitate the acquisition of knowledge and skills as it prepares its diverse population for life in a democratic society and the information age of the 21<sup>st</sup> century.

**PIMMIT HILLS HIGH SCHOOL**  
**“PATHWAY TO SUCCESS”**

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**Department of Student Services  
Pimmit Hills Alternative High School**

**Mission Statement**

**The Student Services team includes the school counselors, the career center specialist, the career development coordinator, the school social worker, and director. Our mission is to help students graduate from high school with a career plan to promote a more successful future. The team works collaboratively with students, teachers, administrators, and parents/guardians to facilitate each student’s educational process. We strive to provide effective and appropriate support for our students, taking into consideration their social, economic, and cultural backgrounds.**

## Student Services

Academic counseling  
Annual registration for classes  
Bi-monthly new student orientation  
Career counseling  
Career interest inventories  
Collaboration with base school counselors  
Collaboration with teachers, administrators and Office of Student Services  
Collection of SOL data from base schools  
College and career search  
College applications and recommendations  
College counseling  
College scholarship information  
Conflict resolution  
Consultation with ESOL registration centers  
Consultation with private resources  
Consultation with Substance abuse resource team  
Group counseling  
Group guidance  
Homework collection for extended absences  
Individual counseling  
Individual progress report  
Learning style information  
Open enrollment through out the year  
Organizational and study skills  
Parent conferences  
Recognition for outstanding students (Honor Roll, quarterly)  
Referrals to community agencies  
Special Education support  
Testing services:  
    SAT, PSAT, ACT, ASVAB, SOL and WIDA  
Transitional schools orientations  
High schools councilors department or orientation

## **Program Description**

**Fairfax County Public Schools (FCPS) supports three adult/alternative high schools. They are Bryant Alternative High School, Mountain View Alternative High School and Pimmit Hills Alternative High School. These schools offer programs designed to help students whose life circumstances could result or have resulted in an interruption of their education or in their dropping out of school. The adult/alternative high school population consists of students for whom English is a second language, older students who are returning to finish courses to earn their diploma, or students who need a flexible or extended program to accommodate their work and family requirements. Some students are administratively placed through the School Board.**

## **Programs**

**Pimmit Hills High School offers programs that include a range of standard course offerings and elective courses needed for graduation. In addition, we offer English for Speakers of Other Languages (ESOL) literacy programs designed to help adult students gain English language skills and earn a high school diploma. Pimmit Hills High School is fully accredited through the Southern Association of Colleges and Schools.**

Main Office Phone Number (703) 506-2344  
Student Services Phone Number (703) 506-2323

## SCHOOL STAFF

### Administrative Staff

Principal -----Mrs. Beverly Wilson  
Assistant Principal (A-K)-----Mr. Jim Sykes  
Assistant Principal (L-Z)-----Mr. Bud Mayo  
Director of Student Services-----Dr. Roylon Dick  
Safety and Security-----Mr. Jurgen Walls  
School Recourse Officer-----Officer Vincent Jones

### Administrative Support Staff

Principal's Administrative Assistant-----Mrs. Cynthia Hall  
Financial Officer-----Ms. Heidi Gantt  
Receptionist-----Mrs. Leslie Chappell

### Student Services Staff

Director of Student Services-----Dr. Roylon Dick  
School Counselor (A-K)-----Mrs. Janet Nelson  
School Counselor (L-Z)-----Ms. Ann Elise Schneider  
Career Center Specialist-----Ms. Shelli Carpenter  
Career Development Coordinator-----Mrs. Didi Crowder  
Career and Transitional Services-----Mrs. Kathy Lear  
Social Worker -----Mr. Daniel St. Rose  
Student Services Administrative Assistant -----Ms. Erin Whittaker  
Student Information Assistant-----Mrs. Monique Murray

## STANDARD DIPLOMA

### 22 CREDIT DIPLOMA REQUIREMENTS FOR GRADUATION

**The requirements for a student to earn a diploma shall be those in effect when the student enters the ninth grade for the first time.**

To graduate from high school, students shall meet the minimum requirements for the standard diploma as outlined below including 22 standard credits, 6 of which must be verified credits. A **standard** credit is earned when a student passes a course. A **verified** credit is earned when a student passes a course and the associated end-of-course SOL test. In some cases, students may utilize substitute tests, certifications, or the appeal process to earn verified credits. State guidelines prescribe the number of verified credits required for graduation for students entering a Virginia public high school for the first time during the tenth grade or after. Consult your school counselor for specific information.

Students in grades 7-12 receive credit toward graduation for high school courses taken in middle school. These courses count toward credits in the required sequences as well as toward the total number of credits required for graduation and calculation of the grade point average (GPA). **Middle school parents may request that grades for any high school credit-bearing course taken in the middle school be removed from the student's high school transcript, and therefore the student will not earn high school credit for the course.** In addition, the student will not be eligible for a verified credit in any course which has been removed from the transcript. **The request to remove a course from the transcript must be made in writing to the middle or high school the student will attend the following year, prior to the end of the first nine weeks.**

#### **Standard Diploma: 22 Units of Credit**

<b>Standard Diploma Course Requirements (8 VAC 20-131-50.B)</b>		
<b>Discipline Area</b>	<b>Standard Credit</b>	<b>Verified Credit Effective for Ninth Graders in 2003-04 and beyond</b>
English	4	2
Mathematics <sup>1</sup>	3	1
Laboratory Science <sup>2,6</sup>	3	1
History and Social Sciences <sup>3,6</sup>	4	1
Health and Physical Education	2	
Fine Arts or Career and Technical Ed	1	
Electives <sup>4</sup>	5	
Student Selected Test <sup>5</sup>		1
<b>Total Credits</b>	<b>22</b>	<b>6:</b> 2 English; 1 mathematics; 1 science; 1 history/social science; 1 student selected

<sup>1</sup> Courses completed to satisfy this requirement shall be at or above the level of algebra and shall include at least two course selections from among Algebra I, Geometry, Algebra II, or other mathematics courses above the level of algebra and geometry.

<sup>2</sup> Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines: Earth Science, Biology, Chemistry, or Physics.

<sup>3</sup> Courses completed to satisfy this requirement are U.S. and Virginia History, U.S. and Virginia Government, and World History/Geography I and World History/Geography II. AP World History satisfies the requirement for World History/Geography II.

<sup>4</sup> Courses to satisfy this requirement shall include at least two sequential electives.

<sup>5</sup> A student may utilize additional tests for earning verified credit in computer science, technology, career and technical education or other areas as prescribed by the Board in 8 VAC 20-131-110.

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

# ADVANCED STUDIES DIPLOMA

## 24 CREDIT DIPLOMA REQUIREMENTS FOR GRADUATION

The requirements for a student to earn a diploma shall be those in effect when the student enters the ninth grade for the first time.

To graduate from high school, students shall meet the minimum requirements for the advanced studies diploma as outlined below which include 24 credits, 9 of which must be verified credits. A **standard** credit is earned when a student passes a course. A **verified** credit is earned when a student passes a course and the associated end-of-course SOL test. In some cases, students may utilize substitute tests or certifications to earn verified credits. State guidelines prescribe the number of verified credits required for graduation for students entering a Virginia public high school for the first time during tenth grade or after. Consult your school counselor for specific information.

Students in grades 7-12 receive credit toward graduation for high school courses taken in middle school. These courses count toward credits in the required sequences as well as toward the total number of credits required for graduation and calculation of the grade point average (GPA). **Middle school parents may request that grades for any high school credit-bearing course taken in the middle school be removed from the student's high school transcript, and therefore the student will not earn high school credit for the course.** In addition, the student will not be eligible for a verified credit in any course which has been removed from the transcript. **The request to remove a course from the transcript must be made in writing to the middle or high school the student will attend the following year prior to the end of the first nine weeks.**

### Advanced Studies Diploma: 24 Units of Credit

Advanced Studies Diploma Course Requirements (8VAC 20-131-50.C)		
Subject Area	Standard Credits	Verified Credits
English	4	2
Mathematics <sup>1</sup>	4	2
Laboratory Science <sup>2</sup>	4	2
History and Social Science <sup>3</sup>	4	2
Foreign Languages <sup>4</sup>	3	
Health and Physical Education	2	
Fine Arts or Career and Technical Ed	1	
Electives	2	
Student Selected Test <sup>5</sup>		1
<b>Total Credits</b>	<b>24</b>	<b>9:</b> 2 English; 2 mathematics; 2 science; 2 history/social science; 1 student selected

<sup>1</sup> Courses completed to satisfy this requirement shall be at or above the level of algebra and shall include at least three different course selections from among: Algebra I, Geometry, Algebra II, or other mathematics courses above the level of Algebra II. The Board may approve additional courses to satisfy this requirement.

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

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

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

<sup>5</sup> A student may utilize additional tests for earning verified credit in computer science, technology, career or technical education or other areas as prescribed by the Board in 8 VAC 20-131-110.

**MODIFIED STANDARD DIPLOMA**  
**20 CREDIT DIPLOMA REQUIREMENT FOR GRADUATION**

Effective For Those Students Entering 9<sup>th</sup> Grade For The First Time In 2000-2001 And After

**The requirements for a student to earn a diploma shall be those in effect when the student enters the ninth grade for the first time.**

The modified standard diploma is intended for certain students who have a disability and are unlikely to meet the credit requirements for a Standard Diploma. Eligibility and participation in the Modified Standard Diploma program shall be determined by the student’s Individual Education Program (IEP) team anytime after the student’s eighth grade year. There are no verified credit requirements for the Modified Standard Diploma. **Beginning with the 9<sup>th</sup> grade class of 2000-01, students pursuing the modified standard diploma are required to meet literacy and numeracy requirements on the 8<sup>th</sup> grade English reading and mathematics Standards of Learning (SOL) tests.** Students may substitute a higher level high school SOL test for the 8<sup>th</sup> grade SOL tests in English reading and mathematics or other substitute tests approved by the Virginia Board of Education.

A 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 the high school career. The student may not be excluded from courses and tests required to earn a Standard or Advanced Studies Diploma.

**Modified Standard Diploma: 20 Units of Credit**

<b>Modified Standard Diploma Course Requirements (8 VAC 20-131-50.D)</b>	
<b>Discipline</b>	<b>Standard Credits</b>
English	4
Mathematics <sup>1</sup>	3
Science <sup>2</sup>	2
History and Social Science <sup>3</sup>	2
Health and Physical Education	2
Fine Arts or Career and Technical Ed	1
Electives <sup>4</sup>	6
<b>Total Credits</b>	<b>20</b>

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

<sup>2</sup> Courses completed shall include content from at least two of the following: applications of earth science, biology, chemistry, or physics in courses approved by the Board.

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

<sup>4</sup> Courses to satisfy this requirement shall include a least two sequential electives in the same manner required for the Standard Diploma.

**Declaration of Nondiscrimination**

No student, employee, or applicant for employment in the Fairfax County Public Schools shall, on the basis of age, race, color, sex, religion, national origin, marital status, or disability, or age (under certain conditions), be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. Compliance is coordinated by the directors of the following: Office of Design and Construction Services (located at 10640 Page Avenue Suite 400, Fairfax Virginia 22030, 703-246-3632) regarding access to facilities; Office of Equity and Compliance (571-423-3050 or TTY 703-280-9833), regarding equal employment opportunity, discrimination, and sexual harassment issues; Office of Monitoring and Compliance (571-423-4210), Department of Special Services, regarding programs and activities for students with disabilities. Correspondence may be addressed to the above offices and sent to 8115 Gatehouse Road, Falls Church, Virginia 22042.

STATE DIPLOMA SEALS

1. The Governor’s Seal shall be awarded to 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 course (AP), International Baccalaureate (IB), or one college-level course for credit. NOTE: New requirements for this seal went into effect with the ninth-grade class of 2006-07 and beyond. The requirements, which were adopted in 2000 for the ninth-grade classes of 2001 through 2005, as stated here, will remain in effect for the graduating classes of 2007, 2008, and 2009.
2. Students who complete the requirements for a standard diploma or advanced studies diploma with an average grade of “A” shall receive a **Board of Education Seal** on the diploma.
3. The **Board of Education’s Career and Technical Education Seal** will be awarded to students who earn a standard or advanced studies diploma and complete a prescribed sequence of courses in a career and technical education concentration or specialization that they choose and maintain a “B” or better average in those courses; or (i) pass an examination or an occupational competency assessment in a career and technical education concentration or specialization that confers certification or occupational competency credential from a recognized industry, trade or professional association or (ii) acquire a professional license in that career and technical education field from the Commonwealth of Virginia.
4. The **Board of Education’s Seal of Advanced Mathematics and Technology** will be awarded to students who earn either a standard or advanced studies diploma and (i) satisfy all of the mathematics requirements for the advanced studies diploma (four units of credit including Algebra II; two verified units of credit) with a “B” average or better; and (ii) either (a) pass an examination in a career and technical education field that confers certification from a recognized industry, or trade or professional association; (b) acquire a professional license in a career and technical education field from the Commonwealth of Virginia; or (c) pass an examination approved by the board that confers college-level credit in a technology or computer science area.
5. 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: (i) complete Virginia and United States History and Virginia and United States Government courses with a grade of “B” or higher; and, (ii) have good attendance and no disciplinary infractions as determined by local school board policies and, (iii) complete 50 hours of voluntary participation in community service or extracurricular activities. Activities that would satisfy the requirements of clause (iii) of this subdivision include: (a) volunteering for a charitable or religious organization that provides services to the poor, sick or less fortunate; (b) participating in Boy Scouts, Girl Scouts, or similar youth organizations; (c) participating in JROTC; (d) participating in political campaigns or government internships, or Boys State, Girls State, or Model General Assembly; or (e) participating in school-sponsored extracurricular activities that have a civics focus.
6. Students may receive other seals or awards for exceptional academic, career and technical, citizenship, or other exemplary performance in accordance with criteria defined by the local school board.

(NOTE: The requirements in the 2006 Virginia Standards of Accreditation for seals take effect with the ninth-grade class of 2006-2007 and beyond. The requirements adopted in the 2000 SOA for the ninth-grade classes of 2001 through 2005, as stated here, will remain in effect for the graduating classes of 2007, 2008, and 2009.)

The Foreign Language Credit Program exam is given each fall to students who wish to demonstrate written proficiency in one of several languages: Amharic, Arabic, Bengali, Chinese, Farsi, French, Hindi, Korean, Punjabi, Russian, Somali, Spanish, Tagalog/Pilipino, Twi, Urdu, or Vietnamese. Students who are successful on the exam receive two foreign language credits which may be used to fulfill the foreign language requirements of the Advanced Studies Diploma or as electives for the Standard Diploma. In addition, students who participate in the English for Speakers of Other Languages (ESOL) program during grades 7-12 may apply two units of credit in the Level 2 category (course code 5720) towards the foreign language requirement of the Advanced Studies Diploma.

For more information on the exam, go to:  
<http://www.fcps.edu/DIS/OHSICS/forlang/creditema/index.htm>  
 or contact the Foreign Language Office at 703-208-7724.

GRADE-POINT AVERAGE

Grade-point average (GPA) is calculated on the basis of **all courses for which credit has been earned or attempted, including repeated courses previously passed**. In order for a repeat course to raise a GPA, the student’s grade must be higher than the one originally given. All classes appearing on the high school transcript including high school classes taken in summer school, middle school, elementary school, or online are included when calculating GPA.

Quality points are numerical values assigned to final grades for the purpose of determining a numerical average. Quality points are assigned to grades earned in all courses for which credit is received, as follows:

A	-	4.0	C+	-	2.5	D	-	1.0
B+	-	3.5	C	-	2.0	F	-	.0
B	-	3.0	D+	-	1.5	P	-	.0

Advanced Placement (AP) courses and specified International Baccalaureate (IB) courses receive an additional .5 added to the final grade upon successful completion of the course. Successful completion is defined as completing the course with a passing grade and taking the corresponding AP or IB exam. For example, a final grade of A in an AP/IB course shall receive 4.5 quality points for purposes of calculating grade point average.

Courses dropped will not be counted in grade point average (GPA) except when a final grade of F is received: (a) for the fourth grading period of a full-year course, or (b) for the second grading period of a semester course. A student's GPA is determined by dividing the total number of quality points earned by the number of courses included in the transcript. The grade-point average is reported to three decimal places (thousandths).

WITHDRAWAL POLICY

If a student drops a course during the:

1st quarter	No penalty--nothing is recorded.
2nd quarter	WP (withdrawn passing) or WF (withdrawn failing) is recorded. Exception: For semester courses a WP or F for failure is recorded.*
3rd quarter	WP or WF is recorded.
4th quarter	WP or F for failure is recorded.*

\* Unless there are unusual circumstances, a student who has a passing grade may not withdraw during the terminating quarter of the course.

## POSTSECONDARY PLANNING

Each high school in Fairfax County Public Schools provides a sequential postsecondary planning program that focuses on the acquisition of knowledge, skills, and self-understanding necessary to achieve after high school goals. Students are counseled regarding opportunities for post-secondary education, financial aid and employment prior to high school graduation. The program includes career planning that assists students in developing good decision-making skills, an understanding of their interests and abilities, and knowledge of the wide range of career opportunities. To assist in the process, information and references are provided at your school and are available online. Each high school has a staffed Career Center with current college and career resource materials. Consult <http://www.fcps.edu/ss/CareerConnections>

## FCPS ONLINE COURSES

FCPS Online Campus is a program designed to provide students with an online option for earning credits toward high school graduation. This program supports the Governor's "Early College Scholars" program by providing advanced courses to students.

Students registered in any Fairfax County Public School or alternative high school are eligible to apply to take a course through the FCPS Online Campus. These courses are for students who have scheduling conflicts or have special needs requiring web-based instruction. Tuition will be charged when a student is already scheduled to receive seven credits during the academic year or when a student enrolls in an FCPS online summer course. Students must meet all regular eligibility requirements to enroll in an FCPS online course. Students interested in enrolling in an FCPS Online Campus course should consult their school counselor for information regarding the registration process. For more information go to [www.fcps.edu/DIS/onlinecampus](http://www.fcps.edu/DIS/onlinecampus).

The following courses are currently available on line:

Algebra 1	AP English Language
Algebra 2	AP English Literature
Geometry	AP French Language
Geometry Honors	AP Spanish Literature
Trigonometry	AP Spanish Language
Biology 1	AP U.S. Government
Chemistry 1	AP U.S. History
Geosystems	AP Psychology
Oceanography	AP Microeconomics
Physics 1	AP Macroeconomics
Spanish 1	AP Biology
Spanish 2	AP Chemistry
Spanish 3	AP Physics B
Creative Writing 1	AP Calculus AB
Creative Writing 2	AP Statistics
English 9	
English 10	
English 11	
English 12	Advanced Accounting
Psychology	
VA and US Government	Physical Education 9
VA and US History	Physical Education 10
World History and Geography 1	
World History and Geography 2	

## ADVANCED ACADEMIC PROGRAMS

Advanced Academic Programs at the high school level are comprised of Pre-AP, Pre-IB, or honors courses at the 9<sup>th</sup> and 10<sup>th</sup> grade levels, and the Advanced Placement (AP) or International Baccalaureate (IB) programs at the 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grade levels. Advanced Academic Programs are open to all students committed to rigorous academic work. Student transfer applications may be submitted for an AP or IB program if the base school does not offer the desired program of study. For more information go to <http://www.fcps.k12.va.us/ss/student-transfer/>

AP and IB courses are advanced-level courses with external exams. Students who take AP and IB courses are required to sit for the examinations. **(For more information, see Grade Point Average).**

The program for gifted and talented students responds to the requirement of the Virginia Board of Education that each local school division plan and implement an instructional program for gifted and talented students at all levels K-12. Courses designated as honors, Pre-AP, Pre-IB, IB and AP fulfill this requirement.

The Fairfax County Public Schools' high school advanced academic program provides educational opportunities designed and coordinated to meet the needs, abilities, and interests of gifted and talented students. The high school gifted program provides challenging courses for students who demonstrate advanced academic ability.

Differentiated curricula and teaching strategies which stress critical thinking skills, creativity, and problem-solving are integrated into the content of all advanced academic course offerings. The four-year sequence of courses in each of the academic disciplines, which progresses from honors and pre-AP to AP, and from pre-IB to IB, provides a continuous and balanced gifted and talented program.

### Advanced Placement

Centreville, Chantilly, Fairfax, Falls Church, Hayfield, Herndon, Lake Braddock, Langley, Madison, McLean, Oakton, South County, West Potomac, West Springfield, Westfield, and Woodson High Schools offer the Advanced Placement (AP) program. Individual AP courses are also offered at other high schools. All students enrolled in an AP course are required to take the end-of-course AP exam. AP exams are graded on a scale of 1-5.

The AP program is offered in English, social studies, mathematics, science, foreign languages, and fine arts. AP courses are offered as open enrollment to all students committed to rigorous academic work. Students taking at least 3 AP exams with at least a grade of 3 on each are recognized by the College Board as AP Scholars. Further information about the AP program may be obtained by contacting the school counselor or AP coordinator at the participating school.

### International Baccalaureate

Annandale, Edison, Lee, Marshall, Mount Vernon, Robinson, South Lakes, and Stuart High Schools offer the International Baccalaureate (IB) Diploma. To qualify for the IB Diploma, students must select at least one subject from each of six IB subject groups including English, world language, mathematics, science, social studies, and an elective. Students take at least 3 and not more than 4 of these subjects at higher level (HL), the others at standard level (SL). All students enrolled in an IB course are required to take the end-of-course IB exams. IB exams are graded on a scale of 1-7. IB diploma candidates must complete 150 hours of extracurricular activities and community service, take the Theory of Knowledge course, and write a 4000 word essay on a topic of their choice. Students in IB schools have a choice of being certificate candidates or IB diploma candidates. Certificate candidates take one or more IB courses and the associated exam(s) and receive certificates for each IB exam with a score of "4" or better.

The IB program is offered in English, social studies, mathematics, science, world languages, fine arts, and other electives. IB courses are offered as open enrollment to all students committed to rigorous, academic work. Further information about the IB program may be obtained by contacting the school counselor or IB coordinator at the participating school.

Annandale, South Lakes, Mount Vernon, and Stuart High Schools implement the IB Middle Years Program in 9<sup>th</sup> and 10<sup>th</sup> grade. Students may choose to work toward the MYP certificate which requires the completion of a personal project at the end of 10<sup>th</sup> grade and success on the MYP 10<sup>th</sup> grade assessments.

### Thomas Jefferson High School For Science And Technology

The Thomas Jefferson High School for Science and Technology is a unique Fairfax County public school offering a comprehensive college preparatory program emphasizing the sciences, mathematics, and technology. As the Governor's School for Science and Technology in Northern Virginia, the school serves students who are selected in a competitive process and intend to pursue college preparation in the sciences, engineering, or related fields. Students may obtain information about application procedures and deadlines from the School Counseling Office of their local schools or by calling Thomas Jefferson High School for Science and Technology Office of Admissions at 703-658-5823.

## HIGH SCHOOL ACADEMIES

Advanced technical and specialized elective courses are available at Academies located at Chantilly, Edison, Fairfax, Falls Church, Marshall, and West Potomac High Schools for students interested in pursuing careers in International Studies and Business; Engineering and Scientific Technology; Health and Human Services; or Communications and the Arts. Enrollment in the Academy elective course offerings will provide juniors and seniors with career and academic preparation for future learning in college and career fields. Students enrolling in the Academy elective courses will be provided with opportunities to participate in shadowing, mentoring, and/or internships with local businesses. Transportation may be provided to Academy locations. Please check with each respective location for transportation schedules relevant to each high school academy. Refer to course descriptions in the *Standard Course Offerings* for specific information on Academy courses.

### 2009-2010 HIGH SCHOOL ACADEMY COURSE OFFERINGS

#### CHANTILLY ACADEMY

##### Engineering and Scientific Technology

A+  
Air Force JROTC  
Animal Science  
Automotive Collision Service  
Automotive Technology  
Cisco  
Computer Tech Prep  
Construction Technologies  
Cosmetology  
Criminal Justice

Culinary Arts  
Dental Careers  
Early Childhood Careers  
Electrical Construction & Engineering  
Engineering Math  
Engineering Physics  
Engineering Systems  
Entrepreneurship  
Exploring Health Sciences  
Exploring the Language of Medicine

##### Health and Human Services

Girls Exploring Engineering (Engineering Sys)  
Hotel Marketing  
Independent Research - Engineering  
IT Seminar  
Medical Assistant  
Network Administration (Microsoft)  
Oracle  
Pharmacy Technician

#### EDISON ACADEMY

##### International Studies and Business

A+  
Animal Science  
Auto Collision Service  
Auto Technology  
Cisco

Cosmetology  
Culinary Arts  
Electrical Construction & Engineering  
Heating Ventilation, AC & Refrigeration  
Hotel Marketing

##### Engineering and Scientific Technology

IT Seminar  
Landscape Architecture & Turf Management  
Network Administration (Microsoft)  
Oracle

#### FAIRFAX ACADEMY

##### Communications and the Arts

Broadcast Journalism  
Chinese  
Dance  
Fashion Design

Interior & Commercial Design  
Korean  
Music and Computer Technology  
Professional Graphic Studio

Professional Musical Theatre & Actor's Studio  
Professional Photography Studio  
Professional Television Production

#### FALLS CHURCH HIGH SCHOOL

##### Health and Human Services

Criminal Justice  
Dental Careers  
Exploring Health Sciences

Exploring the Language of Medicine  
Fire and Emergency Medical Sciences  
Medical Assistant

Pharmacy Technician  
Practical Nursing

#### MARSHALL ACADEMY

##### International Studies and Business

A+  
Aerospace Science  
Automotive Collision Service  
Automotive Technology  
Chinese

Cisco  
Cosmetology  
Criminal Justice  
Culinary Arts  
Engineering Physics

##### Engineering and Scientific Technology

Engineering Systems  
Entrepreneurship  
Hotel Marketing  
IT Seminar  
Network Administration (Microsoft)

#### WEST POTOMAC ACADEMY

##### Communications and the Arts

Criminal Justice  
Dance  
Dental Careers  
Early Childhood Careers  
Exploring Health Sciences

Exploring the Language of Medicine  
Fashion Design  
Interior & Commercial Design  
Medical Assistant  
Music and Computer Technology

##### Health and Human Services

Pharmacy Technician  
Physical Therapy/Occupational Therapy  
Professional Graphic Studio  
Professional Musical Theatre & Actor's Studio  
Professional Television Production

## PROMOTION POLICY

### Middle School

To qualify for promotion, seventh and eighth grade middle school students must demonstrate knowledge and competency based upon identified standards of achievement in the four core areas of language arts, mathematics, science, and social studies. To guarantee promotion, students must master the foundational knowledge and skills in each of the four core subject areas and earn a passing final grade based on grade level expectations.

Students who earn an "F" as a final grade in one or two core subjects are retained and encouraged to attend a summer program. Based upon the extent to which a student demonstrates knowledge and competency of identified standards of achievement in a summer program, he/she is promoted or retained. Students who are promoted will receive continued intervention throughout the following year. If students do not attend a summer program, they are retained at the discretion of the principal.

Students who earn an "F" in three or four core courses are retained.

### High School

The minimum requirements for placement in high school grades are as follows:

To be placed in grade:	The student must:
9	Be promoted from 8th grade
10	Earn 5 credits
11	Earn 10 credits
12	Have a planned program providing for sufficient credits to qualify for graduation the following June or August

## PASS-FAIL

The Fairfax County School Board policy permits students to take certain courses on a pass-fail basis.

- With parental or guardian approval, any high school student shall be given the option of taking one elective credit per school year to be marked on a pass-fail basis. This may be applied to required physical education credits, foreign language credits, and to credits other than those required for English, social studies, mathematics, and laboratory science and specialized courses such as Principles of Engineering Technology and Senior Technology Research taught at Thomas Jefferson High School for Science and Technology.
- A double or triple-period class taken for two or three credits in the technical fields may be taken on a pass-fail basis as the one pass-fail course per year.
- No student may take more than two-single semester electives or one full-year elective per school year on the pass-fail system except as indicated above.
- Any high school student wishing to take a course as pass-fail shall indicate this by completing a "Pass-Fail Status Request Form" requiring parent approval and returning it to designated school personnel on or before the 22nd school day or by the first half of the first grading period subsequent to entering the course. Students in schools using a semester block schedule must return the parent approval form to the designated school personnel on or before the 11th school day or by the first half of the first grading period subsequent to entering the course. This decision may not be reversed.
- If a student drops a class being taken on a pass-fail basis and transfers to a new class, the student shall have 10 school days to make a decision as to whether the new class will be taken on a pass-fail basis. Students in schools using a semester block schedule shall have 5 school days to make a decision as to whether the new class will be taken on a pass-fail basis, provided it is an elective course. This decision may not be reversed.

- If a student drops a class being taken on a pass-fail basis and transfers to a new class, the student shall have 10 school days to make a decision as to whether the new class will be taken on a pass-fail basis. Students in schools using a semester block schedule shall have 5 school days to make a decision as to whether the new class will be taken on a pass-fail basis, provided it is an elective course. This decision may not be reversed.
- Grades are determined as follows:
  - "P" for an A, B+, B, C+, C, D+, D which will receive credit but will not count in grade-point average.
  - "F" for an F which will receive no credit but will be counted in grade-point average.

## CAREER AND TECHNICAL EDUCATION

Course descriptions for Career and Technical Education courses can be found under Business and Information Technology, Family and Consumer Sciences, Health and Medical Sciences, Marketing, Technology Education, Trade and Industrial, and sections of the *Standard Course Offerings* guide. School counselors can provide further information on courses available at the following locations: Chantilly, Edison, Fairfax, Falls Church, Marshall, and West Potomac High School Academies, as well as at Tysons Corner Center, Fair Oaks Shopping Center, and Spring Village Residential Construction Site.

Fairfax County Public Schools (FCPS) has established "articulation agreements" with the Art Institutes of Miami, Philadelphia, and Washington, The Culinary Institute of America, George Mason University, Johnson & Wales University, and Stratford University that allow students to take certain career and technical education classes in high school and receive advanced placement credit. In addition, FCPS has dual enrollment agreements with Northern Virginia Community College (NVCC) whereby students earn college credits for select career and technical education classes.

## STUDENT FEES

Courses that require a student fee for consumable materials have been designated in this catalog. The schedule of divisionwide student fees to be charged for any elective course can be found in Notice 5922 at <http://www.fcps.edu/Directiv>

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## **BUSINESS & INFORMATION TECHNOLOGY**

### **ADVANCED INFORMATION SYSTEMS (661300)**

**Grades: 9, 10, 11, 12**

**Credit: one**

**Prerequisite:** Information Systems (661200), Computer Solutions (615030, 31, 32), Advanced Computer Solutions (660932) or equivalent skill.

Advanced Information Systems provides students with the opportunity to develop professional computer and technology skills in a project-oriented and student-centered environment. Working independently or in teams, students apply problem-solving, decision-making, creative-thinking, and communication skills to relevant, real-life situations through a series of software and peripheral applications. Instruction in current and emerging information technology include operating systems, networking and hardware principles, document preparation, presentation tools, spreadsheets analysis and charts preparation, relational databases management, technical writing, desktop publishing, copyright issues, and basic web page design. Upon completion of this course students will be able to apply technology to analyze and solve problems and to complete technology tasks efficiently and effectively. The cooperative education (Business Cooperative Internship—679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

**Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education Diploma Seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

### **INFORMATION SYSTEMS (661200)**

**Grades: 9, 10, 11, 12**

**Credit: one**

**Prerequisite:** Computer Solutions or equivalent skill

Keyboarding instruction will be a component of this course based on student need. This computer-based course teaches students to use technology efficiently and effectively to gather and organize information, and problem solve tasks. Through a series of software applications and activities, students will establish a strong foundation in keyboarding techniques and proficiency, manage computer systems, produce word processing documents, develop spreadsheets, databases, and multimedia presentations; and, work with telecommunications and networks. Integrating lessons with real-life business applications and cross-curricular learning activities will enable the students to become better prepared for life-long learning and problem solving. The cooperative education (business Cooperative Internship—679920) method is available for this course. Students combine classroom instruction and

supervised on-the-job training in an approved position with continuing supervision throughout the school year.

**Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education Diploma Seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

### **OFFICE ADMINISTRATION (662100/662190)**

**Grades 9- 12**

**Credit: one**

This course allows students to reinforce keyboarding skills and acquire knowledge of office routines such as preparing correspondence and business forms, managing electronic records and financial records, and voice recognition. In a team environment (The Company approach), relevant, real-life activities and simulations are used to improve communication skills, business etiquette, and develop job-seeking techniques. The cooperative education (Business Cooperative Internship—679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

**Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education Diploma Seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

## **ENGLISH**

### **ENGLISH 9 (113000)**

**Grades: 9**

**Credit: one**

**Prerequisite:** English 8

Students read a variety of literature, exploring the characteristics of different forms and relating life situations to literary themes. Language study includes spelling, vocabulary, and learning about language history and structure. Through varied and frequent writing assignments, students build on their understanding of writing as a process of prewriting, drafting, revising, and publishing. They also improve discussion skills as well as observing and practicing oral presentations to develop poise and confidence. (This is a

Standards of Learning aligned course which is tested in 11th grade.)

**TRANSITIONAL ENGLISH 9 (113095)**

**Grades: 9**

**Credit: one**

This course can be added to a school program only with the approval of the Office of High School Instruction and K-12 Curriculum Services. Transitional English 9 is intended to be taken concurrently with English for Speakers of Other Languages (ESOL) course number 5730. For ESOL students, Transitional English serves as a transition from ESOL to the mainstream English program as the ESOL and English teachers work together to provide support through a cohesive program of study based on the English POS. Students read a variety of literature, exploring the characteristics of different forms and relating life situations to literary themes. Language study includes spelling and vocabulary. Through varied and frequent writing assignments, students build on their understanding of writing as a process of prewriting, drafting, revising, and publishing. They practice oral communication skills in a variety of settings, including small groups, class discussions, and formal presentations. (This is a Standards of Learning aligned course which is tested in 11th grade.)

**ENGLISH 10 (114000)**

**Grades: 10**

**Credit: one**

**Prerequisite: English 9 or Transitional English 9**

Students read a variety of literature comparing and contrasting setting, characterization, conflict, point of view, and theme. Language study includes spelling, vocabulary, verbal analogies, and learning about language history and structure. Through varied and frequent writing assignments, students expand their understanding of writing as a process and develop their skill in revising according to purpose and audience. They practice adapting speaking and listening skills to the audience, topic, purpose, and situation. (This is a Standards of Learning aligned course which is tested in 11th grade.)

**ENGLISH 11 (115000)**

**Grades: 11**

**Credit: one**

**Prerequisite: English 10**

Students read a variety of literature, comparing themes of various works and analyzing expository materials for logical reasoning. Language study includes spelling, vocabulary, grammar, language history and structure. Through varied and frequent writing assignments, students reinforce their understanding of purpose and audience and develop their skill in the use of voice and tone. Through a variety of interpersonal, group, dramatic, and public speaking activities, students refine their understanding of oral communication. (This is a Standards of Learning aligned course which is tested in 11th grade.)

**Students are required to take the Standards of Learning End of Course Test.**

**ENGLISH 12 (116000)**

**Grades: 12**

**Credit: one**

**Prerequisite: English 11**

Students study literary and non-fiction forms and analyze their literary and stylistic elements. Language study includes spelling, vocabulary, and learning about language history and structure. Through varied and frequent writing assignments, students refine their understanding of purpose, audience, and voice and develop criteria for evaluating writing. They participate in speaking and listening activities to build critical thinking--using inference, hypothesis, analysis, synthesis, and evaluation skills.

**DEVELOPING LITERACIES (118060)**

**Grades: 9**

**Credit: one**

Developing Literacies provides direct remediation of content area reading skills necessary to understand the content of mathematics, science, social studies, and English. The course focuses on the reading skills necessary for successful completion of the SOL tests given in the four core areas. Counts as a sequential elective if taken with Expanding Literacies.

**EXPANDING LITERACIES 1 (151500)**

**Grades: 10, 11**

**Credit: one**

Expanding Literacies provides direct remediation of reading skills and English content necessary to pass the EOC English: Reading/Literature and Research and/or the EOC English: Writing SOL tests, which are given in eleventh grade. Verified credit on both tests is required in order to earn a Standard Diploma. Counts as a sequential elective when taken after Developing Literacies.

**EXPANDING LITERACIES 2 (151600)**

**Grades: 11, 12**

**Credit: one**

**Prerequisite: Expanding Literacies (course number 151500)**

Expanding Literacies provides direct remediation of reading skills and English content necessary to pass the EOC English: Reading/Literature and Research and/or the EOC English: Writing SOL tests, which are given in the eleventh grade. Verified credit on both tests is required in order to earn a Standard Diploma. This course is for students who are continuing focused remediation in Expanding Literacies for a second year. Counts as a sequential elective when taken after Developing Literacies and/or Expanding Literacies (1515).

**DEVELOPMENTAL READING (118000)**

**Grades: 9, 10, 11, 12**

**Credit: one**

This elective course offers students an opportunity to improve their reading, thinking, and study skills. A wide range of materials, both fiction and nonfiction, is used to extend vocabulary and comprehension. Students apply reading strategies to content materials and textbooks are provided. Both fiction and non fiction, are used to improve vocabulary and comprehensions. Students concentrate on reading for meaning through a variety of literature and content materials. This elective course offers students opportunities for reading improvement. Instruction is based on diagnosis of each student's needs. Reading competencies addressed in the Virginia Standards of Learning are incorporated into the course objectives. (With approval, schools may offer an alternate plan for incorporating reading instruction into other courses.)

### **REASONING SKILLS (011132)**

**Grades: 10, 11, 12**

**Credit: one-half**

This course is designed to sharpen reasoning strategies in language and/or mathematics and to assist students in preparing for a variety of standardized testing situations--including preparation for the Scholastic Assessment Tests (SAT 1)--in which they will need to reason efficiently and correctly. This course includes preparation for the new SAT writing section. This course will be taught in accordance with a standard county program of studies syllabus.

### **JOURNALISM 1 (120000)**

**Grades: 9, 10, 11, 12**

**Credit: one**

Journalism 1 provides students with opportunities for learning the language of journalism and photojournalism, developing communication skills in writing different kinds of articles, understanding news and the process of publication, and becoming more critical readers and viewers of mass media.

## **ENGLISH FOR SPEAKERS OF OTHER LANGUAGES**

### **ESOL LEVEL 1 (571014)**

**Grades: 9, 10, 11**

**Credit: three**

Students engage in listening, speaking, reading, and writing English through an integrated language arts curriculum. Emphasis is placed building background knowledge and developing academic language proficiency. Students take three periods of ESOL classes: two content-based and one literature-based. Placement is made following assessment by the ESOL entry assessment staff and/or the ESOL teacher. Students enrolled in this course also take 571015 and 571016. It is recommended that students in this course also enroll in

World History Concepts and Concepts Science. This course earns elective credits and may be repeated for additional elective credits.

### **ESOL LEVEL 2 (572091, 572092)**

**Grades: 9, 10, 11**

**Credit: two**

Students continue to engage in listening, speaking, reading, and writing skills. They read a variety of fiction and non-fiction texts to increase academic vocabulary. Emphasis is placed on developing reading, writing, and learning strategies in preparation for challenging academic content. Placement in this course is made following assessment by the ESOL teacher and/or ESOL entry assessment staff. Students enrolled in 572091 also take 572092. 572091 is a literature-based class and 572092 is a content-based class. A total of two credits from 572091 and 572092 may be used as foreign language credits. This course may be repeated for elective credit.

### **ESOL LEVEL 3/4 (573000)**

**Grades: 9, 10, 11**

**Credit: one**

This course is taken concurrently with Transitional English 9 or English 9. ESOL and English teachers work together to provide support through a cohesive program based on the English 9 POS. Students read a variety of literature and relate life situations to literary themes. They continue to develop their reading and writing skills and study the structure of the English language through an integrated language arts curriculum. Students refine their listening and speaking skills through class discussions and oral presentations. Placement in this course is made following assessment by the ESOL teacher and/or the ESOL entry assessment staff. After completing this course, a student may be recommended for exit from the ESOL program. The course may be repeated for elective credit.

## **MARKETING**

### **EDUCATION FOR EMPLOYMENT 1 (EFE) FOR FAMILY AND CONSUMER SCIENCE (902060)**

**Grades: 9, 10, 11**

**Credit: one**

Students explore independent living and workplace skills by identifying individual assets, interests, aptitudes, talents, and current occupational abilities. Through practical experiences related to daily living and work, students determine strategies to improve their assets and ways to emphasize their strengths at home, school, and in the workplace. Students may take this course in conjunction with EFE Cooperative Work Experience (Co-op)

### **EDUCATION FOR EMPLOYMENT 2 (EFE) FOR FAMILY AND CONSUMER SCIENCES (902160)**

**Grades: 10, 11**

**Credit: one**

Students begin to make the transition from school to work by gaining technical skills, conducting a job search and maintaining successful employment by demonstrating positive work training and attitudes and continuing to develop technical skills. They focus on balancing their roles of student, worker, family member, and citizen. Students may take this course in conjunction with EFE Cooperative Work Experience (Co-op).

**EDUCATION FOR EMPLOYMENT (EFE)  
COOPERATIVE INTERNSHIP (CO-OP) (829920 /  
829921)**

**Grades: 10, 11, 12**                      **Credit: one or two**  
**Corequisite: Student must be concurrently enrolled in  
902160 or 902060.**

Students receive school-based and community-based instruction organized around an approved job that leads toward their career goal. The teacher-coordinator, on-the-job training sponsor, parent, and student develop an individualized training plan that identifies learning experiences according to the student's occupational objective. The on-the-job paid training is an extension of the classroom instruction coordinated by the classroom teacher into a coherent set of performance objectives and skills. Students enrolled in EFE co-op attend at least one EFE class and work a minimum of 720 hours (20 hours per week) in an approved and supervised part-time job for two credits.

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**FINE ARTS  
VISUAL ARTS**

**COMPUTER GRAPHICS 1 (918011)**  
**Grades: 9, 10, 11, 12**                      **Credit: one**  
**Prerequisite: ART 1 or permission of the instructor**

Student develop skills in creating personally expressive art through the use of the computer. Emphasis is placed on creative thinking and visual problem solving. Units of instruction focus on developing expertise in the use of computers, scanners, and digital cameras. Software applications include Adobe Photoshop (digital imaging), Adobe Illustrator (illustration and graphic design), Bryce 3-D (animation and landscape design) and other available programs. Ethical issues concerning computer generated imagery are addressed. No prior computer knowledge is required.

**This course requires a student materials fee as listed in  
FCPS Notice 5922.**

**COMPUTER GRAPHICS 2 (918112)**  
**Grades: 10, 11, 12**                      **Credit: one**  
**Prerequisite: COMPUTER GRAPHICS 1**

Students expand their knowledge in the application of hardware and software to create personally expressive original art. Complex visual problems are introduced within the areas of web-page design and development, multimedia presentations, animation, graphic design, and digital imaging. Based upon the computer graphics lab capabilities, additional software may include Flash, (animation, web development, and interactive gaming), GoLive and Dreamweaver (web-authoring), and Adobe Premier (video editing). A final portfolio is required for evaluation.

**This course requires a student materials fee as listed in  
FCPS Notice 5922.**

**COMPUTER GRAPHICS 3: PORTFOLIO  
PREPARATION (914760)**

**Grades: 11, 12**                      **Credit: one**  
**Prerequisite: COMPUTER GRAPHICS 2**

Students engage in the advanced study and application of computer graphics while developing the attitude and self-discipline of a working artist. Students integrate advanced knowledge of software with creative thinking skills to produce a portfolio of artworks that shows evidence of quality, concentration, and breadth of experience.

**This course requires a student materials fee as listed in  
FCPS Notice 5922.**

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**HEALTH and PHYSICAL EDUCATION**

**HEALTH AND PHYSICAL EDUCATION 9 (730000)**  
**Grades: 9**                      **Credit: one**

Students gain knowledge and skills in a variety of individual, dual, and team sports to develop competencies to promote an active lifestyle. Personal fitness and planning concepts are taught. One Quarter of the course includes instruction in the health education topics of drug use prevention: alcohol, tobacco, and other drugs, emotional and social health, personal health, injury and violence prevention, disease prevention, and cardiopulmonary resuscitation and automated external defibrillation (CPR and AED).

**HEALTH AND PHYSICAL EDUCATION 10 (740500)**  
**Grades: 10**                      **Credit: one**  
**Prerequisite: Successful completion of Health and  
Physical Education, grade 9**

Students demonstrate competency in a lifetime sport or activity and demonstrate personal fitness assessment, and an understanding of planning and monitoring. One quarter of the course includes instruction in the health education topics;

personal and community health, nutrition, human growth and development, and injury and violence prevention. One quarter of the course includes the classroom component of driver education. All quarter grades are averaged to determine the final HPE grade.

**Prerequisite: Algebra 1**

This course emphasizes two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. A variety of applications and some general problem-solving techniques, including algebraic skills, will be used to explore geometric relationships. Conjectures about properties and relationships are developed inductively and then verified deductively. Calculators, computers, graphing utilities, dynamic geometry software, and other appropriate technology tools will be used to assist in teaching and learning.

**Students are required to take the Standards of Learning End of Course Test.**

**ALGEBRA 2 (31350)**

**Grades: 10, 11, 12**

**Credit: one**

Algebra 2 provides a thorough treatment of algebraic concepts through the study of functions, polynomials, rational expressions, complex numbers, exponential and logarithmic equations, matrices, arithmetic and geometric sequences and series, and data analysis. Emphasis is placed on the mechanics of algebra with real world applications and modeling. A transformational approach to graphing is used with families of related graphs. Numerical, graphical, and algebraic solutions are considered for all problems as applicable. Graphing utilities especially graphing calculators, are integral to the course.

**Students are required to take the Standards of Learning End of Course Test.**

**TRIGONOMETRY (315000)**

**Grades: 11, 12**

**Credit: one-half**

**Prerequisite: Geometry and Algebra 2**

Trigonometry topics include circular functions, right triangle ratios, solving trigonometric equations, inverses, identities, the Laws of Sines and Cosines, graphing trigonometric functions, and applying trigonometric techniques to solving real-world problems. A transformational approach to graphing is used with families of related graphs. Numerical, graphical, and algebraic solutions are considered for all problems as applicable. Graphing utilities, especially graphing calculators, are integral to the course.

**INDIVIDUALIZED MATHEMATICS (312180)**

**Grades: 9, 10, 11, 12**

**Credit: one**

**Prerequisite: None**

The purpose of this course is to provide instruction of elementary mathematics skills to ESOL or special education students who are functioning below the sixth grade level in mathematics. The course is designed to present the elementary mathematics Program of Studies in a condensed format using manipulatives, special materials, and adaptive strategies. The course includes number concepts, mental mathematics, estimation, problem solving, operations, measurement,

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## MATHEMATICS

**ALGEBRA 1 / PART I (313100)**

**Grades: 9, 10**

**Credit: one**

**Prerequisite: Middle School Mathematics**

Algebra 1 / Part I extends students' 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. Topics include linear equations and inequalities, linear relations and functions, measures of central tendency (mean, median, mode) and data analysis and middle school objectives as needed. Algebra 1 / Part I includes approximately sixty percent of the Virginia Standards of Learning for Algebra 1. Students must pass Algebra 1 to receive mathematics graduation credit for Algebra 1 / Part I.

**ALGEBRA 1 (313000)**

**Grades: 8, 9, 10, 11**

**Credit: one**

**Prerequisite: Middle School Mathematics**

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 geometry and statistics. Calculator and computer technologies will be used as tools wherever appropriate. Use of a graphing calculator is considered essential to provide a graphical and numerical approach to topics in addition to a symbolic approach. Topics include linear equations and inequalities, systems of linear equations, relations, functions and polynomials.

**Students are required to take the Standards of Learning End of Course Test.**

**GEOMETRY (314300)**

**Grades: 9, 10, 11, 12**

**Credit: one**

geometry, data analysis, statistics, probability, and fractions. Students may need up to two years to complete the course, but should move to the next course as soon as their mathematics skills warrant. ESOL and special education students must be enrolled in different sections. ESOL sections (312190) will emphasize language objectives in addition to mathematics objectives. For special education students, this course should be reflected in the student's IEP. Students earn elective credit. This course may be added to a school program only with the approval of the Office of High School Instruction and K-12 Curriculum Services.

**Prerequisite: One laboratory science course**

Active Physics is a physics course for students with weak mathematics skills. This course has a strong emphasis on experimentation using computers and probeware. The six units of study include the physics of sports, medicine, transportation, home, communication, and predictions. The physics content is presented in a problem solving manner to strengthen science and mathematics content knowledge and skills.

### **GEOSYSTEMS (422000)**

**Grades: 11, 12**

**Credit: one**

**Prerequisite: Biology 1 and Chemistry 1**

Geosystems integrates content from geology, astronomy, oceanography, and meteorology with various forms of technology, social and environmental issues, and hands-on experiments. Students will explore concepts using computers, telecommunications equipment, graphing calculators, probeware, GPS, GIS, and image processing software.

**Students are required to take the Standards of Learning End of Course Test.**

### **CONCEPTS SCIENCE (462260)**

**Grades: 9, 10, 11**

**Credit: one**

This course may be offered only with the approval of the Office of High School Instruction and K-12 Curriculum Services. Contact Nancy Batchelder, ESOL Specialist, 703-208-7708. This course taught by science teachers is designed for VDOE Level 1 students. The course provides the students with background information, key vocabulary, and the basic concepts and skills in preparation for taking Biology. This course can be offered on a semester basis for a half credit. Concepts Science is an elective and does not satisfy the state science graduation requirements. This course can be repeated for elective credit.

## **SOCIAL STUDIES**

### **WORLD HISTORY AND GEOGRAPHY 1 (221900)**

**Grades: 9**

**Credit: one**

This is the first of a two-year, chronologically organized study of world history and geography. In this first year, students study the world from ancient times to 1500. The course highlights the relationship between the geography and history of Europe, Africa, Asia, and Latin America. Students refine and expand critical thinking skills, practice decision making and problem solving, and formulate questions to guide research. World History and Geography I is required for graduation.

**Students are required to take the Standards of Learning End of Course Test.**

## **SCIENCE**

### **BIOLOGY 1 (431000)**

**Grades: 9, 10, 11, 12**

**Credit: one**

Biology 1 is a laboratory-oriented course designed to give students a background in biological concepts as well as experience in using the methods of scientific inquiry. The course focuses on the life processes that occur within the cell, the anatomy and physiology of complex multicellular organisms, and the ways by which life forms reproduce, develop, and adapt to conditions in their environment. The course includes a unit on human life education that addresses the topics of human reproduction and human development. Parents have the option of withdrawing their children from any or all topics included in the state-mandated Family Life Education portion. Students opting-out will be provided with alternative biology lessons. If dissections are a part of the laboratory experience, alternatives are available.

**Students are required to take the Standards of Learning End of Course Test.**

### **CHEMISTRY 1 (441000)**

**Grades: 10, 11, 12**

**Credit: one**

**Prerequisite: One laboratory science course, Algebra 1**

Chemistry 1 is designed to enable all students to acquire an understanding of how chemical theory is developed and how a chemist thinks and works. Students investigate the composition, properties, and reactions of matter. The approach is inductive and mathematical, as well as conceptual. Laboratory experiments and subsequent classroom analysis are integral components of the course.

**Students are required to take the Standards of Learning End of Course Test.**

### **ACTIVE PHYSICS (451050)**

**Grades: 10, 11, 12**

**Credit: one**

**WORLD HISTORY AND GEOGRAPHY 2 (222100)**  
**Grades: 10** **Credit: one**

This is the second of a two-year, chronologically organized study of world history and geography. In this second year, students study the world from 1500 through the contemporary era. The course weaves together the skills and content of both history and geography so that students may learn how history and geography affect each other and therefore gain a more complete understanding of the world around them, including North and South America, Europe, Asia, and Africa. Students continue to refine and expand critical thinking skills, practice decision making and problem solving, and formulate questions to guide research. World History and Geography II is required for graduation.

**Students are required to take the Standards of Learning End of Course Test.**

**VIRGINIA AND UNITED STATES HISTORY (236000)**  
**Grades: 11** **Credit: one**

Students examine the political, economic, social, and cultural growth of the United States, including the role of Virginia in this growth. Students study major historical developments and their impact on contemporary society and on the individual. Map and globe reading, critical thinking, writing, research, and group-process skills are refined. Virginia and United States History is required for graduation.

**Students are required to take the Standards of Learning End of Course Test.**

**VIRGINIA AND UNITED STATES GOVERNMENT (244000)**  
**Grades: 12** **Credit: one**

Students examine both the structure and function of American government at the national, state, and local levels. The course focuses on political decision-making, comparative political and economic systems, and the student's role as a citizen. Critical thinking, writing, research, and group-process skills are refined. Virginia and United States Government is required for graduation.

**WORLD CONCEPTS (299660)**  
**Grades: 9, 10, 11** **Credit: one-half or more**

This course provides students with background information, key vocabulary, and basic concepts in preparation for taking World History and Geography I. Course content includes map skills and geographic themes. This course may be repeated for credit. World Concepts is an elective and does not satisfy the state Social Studies requirements for graduation.

**TRADE AND INDUSTRIAL**

**AUTO COLLISION SERVICE 1 (867627)**  
**Grades: 11, 12** **Credit: two**  
**(Chantilly, Edison, and Marshall Academies - transportation may be provided)**

Students are introduced to skill sets derived from industry standards in the auto body repair and restoration industry. The curriculum and laboratory activities are defined by I-CAR and include panel repairs, painting, frame and unibody construction, steering, suspension, detailing, and welding. In addition, students are exposed to the theoretical and practical aspects of this career. For more information, visit the Chantilly, Edison, or Marshall Academy web sites at: <http://www.fcps.edu/ChantillyAcademy/>, <http://www.fcps.edu/EdisonAcademy/>, or <http://www.fcps.edu/MarshallAcademy/>.

**Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education Diploma Seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.**

**AUTO COLLISION SERVICE 2 (867727)**  
**Grades: 11, 12** **Credit: two**  
**Prerequisite: Auto Collision Service 1 (867627)**  
**(Chantilly, Edison, and Marshall Academies - transportation may be provided)**

Students will refine existing skills and develop specific skills necessary to repair late-model damaged vehicles to their original condition. The curriculum and laboratory practices defined by I-CAR include the following: refinishing, metal working, welding, frame-strengthening systems, unibody measuring principles, structural repair, steering, suspension, mechanical, and electrical repairs. As an option, many students will have an opportunity to participate in internship experiences. For more information, visit the Chantilly, Edison, or Marshall Academy web sites at: <http://www.fcps.edu/ChantillyAcademy/>, <http://www.fcps.edu/EdisonAcademy/>, or <http://www.fcps.edu/MarshallAcademy/>.

**Students successfully completing this course may be eligible to earn a Career and Technical Education Diploma Seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.**

**AUTO TECHNOLOGY 1 (850627)**  
**Grades: 11, 12** **Credit: two**  
**Prerequisite: Automotive Serviceing (871026) (where offered at base high schools)Algebra 1**

**(This course is offered at selected high schools and may be available to 10<sup>th</sup> graders. This course is also offered at Chantilly, Edison, and Marshall Academies)**

Students will study and define the eight major systems of the automobile, related tools and equipment, and the automotive industry. An emphasis will be placed on diagnosing systems, developing troubleshooting skills, and the safe use of laboratory equipment. Curriculum is developed from the National Automotive Technicians Education Foundation (NATEF) task lists. Major topics include engine performance, brakes, electrical and electronics systems, and suspension and steering systems. This course may be offered for college credit. In addition, students will be tested on NATEF criteria. For more information, visit the Chantilly, Edison, or Marshall Academy web sites at: <http://www.fcps.edu/ChantillyAcademy/>, <http://www.fcps.edu/EdisonAcademy/>, or <http://www.fcps.edu/MarshallAcademy/>.

**Students successfully completing this course may be eligible to earn a Career and Technical Education Diploma Seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.**

#### **AUTO TECHNOLOGY 2 (850727)**

**Grades: 11, 12 Credit: two**  
**Prerequisite: Auto Technology 1 (850627)**  
**(Selected sites or transportation may be provided to Chantilly, Edison, and Marshall Academies)**

Students will perform technical operations using digital diagnostic equipment, hand scanners, multi-meters, and a computerized data information system during laboratory procedures that are defined by National Automotive Technicians Education Foundation (NATEF). Major topics include engine performance, brakes, electrical and electronic systems, and suspension and steering systems. In addition, students will be tested on NATEF criteria. This course may be offered for college credit. As an option, many students will have an opportunity to participate in local internship experiences. For more information, visit the Chantilly, Edison, or Marshall Academy web sites at: <http://www.fcps.edu/ChantillyAcademy/>, <http://www.fcps.edu/EdisonAcademy/>, or <http://www.fcps.edu/MarshallAcademy/>.

**Students successfully completing this course may be eligible to earn a Career and Technical Education Diploma Seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a**

**student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.**

#### **AUTO TECHNOLOGY 3 (850827)**

**Grades: 11, 12 Credit: two or three**  
**Prerequisite: Auto Technology 2 (850727)**  
**(Selected sites or transportation may be provided to Chantilly, Edison, and Marshall Academies)**

Students will diagnose, troubleshoot, and install components and parts, while focusing on the standards established by National Automotive Technicians Education Foundation (NATEF). Opportunities will be provided to enhance skills and competencies. An emphasis is placed on problem solving issues related to technological enhancements in the automotive industry. As an option, many students will have an opportunity to participate in local internship experiences. For more information, visit the Chantilly, Edison, or Marshall Academy web sites at: <http://www.fcps.edu/ChantillyAcademy/>, <http://www.fcps.edu/EdisonAcademy/>, or <http://www.fcps.edu/MarshallAcademy/>.

**Students successfully completing this course may be eligible to earn a Career and Technical Education Diploma Seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.**

#### **CONSTRUCTION MANAGEMENT (859068)**

**Grades: 11, 12 Credit: two**  
**Prerequisite: Architectural Drawing (8437) or Construction Technology (8515) or Electrical Construction (8533) or Heating and Air Conditioning (8503) or Accounting (632000) or Business Management (613532)**  
**(Spring Village Residential Construction - transportation may be provided)**

The construction management curriculum will prepare students to critically address the present and evolving needs of the construction industry. To perform successfully in the construction industry, students must develop an understanding of the technical aspects of construction while applying useful construction management practices and tools to maintain control and provide informed, optimal decisions. Therefore, the program focuses on the understanding of construction technology, construction management and production management processes.

**Students successfully completing this course may be eligible to earn a Career and Technical Education Diploma Seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma.**

#### **CONSTRUCTION TECH 1- SPRING VILLAGE RESIDENTIAL CONSTRUCTION SITE (851562)**

**Grades: 11, 12** **Credit: two**  
**Spring Village Residential Construction Site –**  
**(transportation may be provided)**

Through a partnership with the Foundation of Applied Technical Education, Inc. (FATE), students have an opportunity to build a single-family home in Springfield, Virginia. This specialized course curriculum is developed from The National Association of Home Builders (NAHB). All aspects of new home construction will be addressed during the course of the year. Students will work directly on concrete installation, framing, ceramic tile, kitchen installation, bathroom installations, hardwood floors, electrical, plumbing, HVAC, landscape, and other areas of new home construction. Theoretical and physical aspects of the construction industry are explored in order for students to establish career goals in the industry.

**Students successfully completing this course may be eligible to earn a Career and Technical Education Diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922**

**CONSTRUCTION TECH 2 - SPRING VILLAGE  
RESIDENTIAL CONSTRUCTION SITE (851662)**

**Grades: 11, 12** **Credit: two**

**Prerequisite: Construction Technologies 1**

**Corequisite: Contact the instructor at the site prior to registering any student for this course please call 703-380-2275.**

**(Spring Village Residential Construction Site -  
transportation may be provided)**

Through a partnership with the Foundation of Applied Technical Education, Inc. (FATE), students have an opportunity to build a single-family home in Springfield, Virginia. This specialized course curriculum is developed from The National Association of Home Builders (NAHB). All aspects of new home construction will be addressed during the course of the year. Students will work directly on concrete installation, framing, ceramic tile, kitchen installations, bathroom installations, hardwood floors, electrical, plumbing, HVAC, landscape, and other areas of new home construction. Theoretical and physical aspects of the construction industry are explored in order for students to establish career goals in the industry.

**Students successfully completing this course may be eligible to earn a Career and Technical Education Diploma Seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.**

**CONSTRUCTION TECHNOLOGIES 1 (851527)**

**Grades: 11, 12** **Credit: two**  
**(Chantilly Academy - transportation may be provided)**

Students will have an opportunity to study and learn about a \$700 billion industry providing a variety of employment opportunities. An emphasis will be focused on construction safety, OSHA regulations, math applications, and craft knowledge. In addition to a variety of hands-on experiences, students will be introduced to electricity, framing, plumbing, millwork, and problem-solving activities related to the construction industry. Curriculum is developed from the National Association of Home Builders (NAHB). For more information, visit the Chantilly Academy web site at: <http://www.fcps.edu/EdisonAcademy/>.

**Students successfully completing this course may be eligible to earn a Career and Technical Education Diploma Seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.**

**CONSTRUCTION TECHNOLOGIES 2 (851627)**

**Grades: 11, 12** **Credit: two**

**Prerequisite: Construction Technologies 1 (851527)**

**(Chantilly Academy - transportation may be provided)**

Students will receive advanced instruction and experiences in the areas of layout and design, framing, estimating, purchasing, planning, and installing. Topics will range from residential through commercial construction. An emphasis will be placed on entrepreneurship and construction site management using curriculum developed by the National Association of Home Builders (NAHB). Students will have an opportunity to apply skills and knowledge learned while constructing a single-family house on a construction site. Student internship experiences are an option for this course. For more information, visit the Chantilly or Edison Academies at the following web sites at: <http://www.fcps.edu/ChantillyAcademy/> or <http://www.fcps.edu/EdisonAcademy/>.

**Students successfully completing this course may be eligible to earn a Career and Technical Education Diploma Seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.**

**COSMETOLOGY 1 (852727)**

**Grades: 11, 12** **Credit: two**

**(Selected sites or transportation may be provided to Hayfield Secondary School, Chantilly, Edison, and Marshall Academies)**

Students learn about the characteristics of hair, product selection, and basic elements that determine hair growth,

health, and appearance. In addition to up-to-date skills in hair styling and cutting, permanent waving, coloring, scalp and facial treatment, and manicuring, students will begin licensure requirements determined by the Virginia Board of Cosmetology. For more information, visit the Chantilly, Edison, or Marshall Academy web sites at: <http://www.fcps.edu/ChantillyAcademy/>, <http://www.fcps.edu/EdisonAcademy/>, or <http://www.fcps.edu/MarshallAcademy/>.

**Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education Diploma Seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.**

### **COSMETOLOGY 2 (852827)**

**Grades: 11, 12** **Credit: two**

**Prerequisite: Cosmetology 1 (852727)**

**(Selected sites or transportation may be provided to Hayfield Secondary School, Chantilly, Edison, and Marshall Academies)**

Students use a laboratory setting for the study of skin, hair, nails and cosmetic chemistry. Through laboratory experiences, students will develop advanced skills and knowledge in all phases of salon industry. Students complete the required cosmetology competencies determined by the State Board of Cosmetology in order to successfully pass the Virginia Cosmetology exam to qualify as a licensed cosmetologist. For more information, visit the Chantilly, Edison, or Marshall Academy web sites at: <http://www.fcps.edu/ChantillyAcademy/>, <http://www.fcps.edu/EdisonAcademy/>, or <http://www.fcps.edu/MarshallAcademy/>.

**Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education Diploma Seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.**

### **COSMETOLOGY 3 (852927)**

**Grades: 12** **Credit: two or three**

**Prerequisite: Cosmetology 2 (852827)**

**Corequisite: Contact the instructor at the school site prior to registering any student for this course.**

**(Selected sites or transportation may be provided to Hayfield Secondary School, Chantilly, Edison, and Marshall Academies)**

Students will focus on management and supervisory skills in their area of concentration. Opportunity will be provided to

enhance any skills and competencies not mastered in the second year of instruction. Student internship experiences are an option for this course. For more information, contact the Chantilly, Edison, or Marshall Academy web sites at: <http://www.fcps.edu/ChantillyAcademy/>, <http://www.fcps.edu/EdisonAcademy/>, or <http://www.fcps.edu/MarshallAcademy/>.

**Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education Diploma Seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922.**

