

# JOYCE KILMER MIDDLE SCHOOL

## COURSE DESCRIPTION GUIDE

2012 – 2013



8100 WOLFTRAP ROAD ♦ VIENNA, VIRGINIA 22182

703-846-8800 ♦ 703-846-8897 (fax)

[www.fcps.edu/KilmerMS](http://www.fcps.edu/KilmerMS)

## *A Message to Parents and Students*

It is with great anticipation and excitement that we welcome the Classes of 2017 and 2018 to Joyce Kilmer Middle School. Our program is designed to meet the challenging educational needs and social changes of the eleven-to-fourteen year-old student.

Middle school students are part of a house consisting of approximately 250 students. Each house contains two teachers from each of the core disciplines: English, science, mathematics, and social studies who plan and manage students' instructional activities. Each grade level has an administrator. School counselors are assigned by house to assist students in their academic, personal/social, and career development. Counselors work with students, parents, teachers, and administrators to develop common objectives, which are reflected in a plan of action to ensure success for every Kilmer student.

This course guide includes descriptions of all seventh and eighth grade courses offered at Kilmer Middle School. Kilmer students take seven courses a day. At each grade level, the following courses are required: English, mathematics, social studies, science, and health and physical education. Students complete their schedule by selecting year-long or semester electives. Electives offer opportunities for enrichment and interest exploration. Please consider future goals and current interests when selecting courses for next year. Plan carefully; the selected courses will not be able to be changed. The school counselors are available to help you make decisions about courses.

The Student Services Department at Kilmer Middle School meets the needs of our diverse student body. Students who qualify through testing and other criteria may participate in the Advanced Academic Program (AAP), special education program, and English for Speakers of Other Languages (ESOL).

All course offerings are subject to adequate enrollment and staffing. Courses offered at Kilmer meet requirements of the Fairfax County Public Schools' Program of Studies and the Virginia State Department of Education. All students will participate in the Virginia state-testing program.

The School Counseling Department looks forward to working with students and parents during these important and formative middle school years. If there are any questions regarding the information presented in this course description guide, please call us at (703) 846-8806.

*"What sculpture is to a block of marble, education is to a human soul."*

Joseph Addison

**Joyce Kilmer Middle School**  
**8100 Wolftrap Road**  
**Vienna, Virginia 22182**  
(703) 846-8800

**Administrators**

Principal	Mr. Douglas Tyson
Director of Student Services	Ms. Sarah Fontana
Assistant Principal (8 <sup>th</sup> grade)	Mr. Ronald James
Assistant Principal (7 <sup>th</sup> grade)	Ms. Susan Britton
Dean of Students	Mr. Larry Knighten

<b>Student Services Department</b>	(703) 846-8806
Student Services Assistant	Ms. Doreen Langesen

**Professional School Counselors**

Ms. Danielle Hornbecker	Ms. Susan Niebergall
Mr. Brian Sirdofsky	Ms. Li-Lin Sun

<b>After-School Specialist</b>	(703) 846-8846
Ms. Kimberly Kardelis	

Joyce Kilmer Middle School Website  
[www.fcps.edu/KilmerMS/](http://www.fcps.edu/KilmerMS/)

Home of the Cougars

*Kilmer's Motto: Kilmer Cougars Dare to Excel!*

*At Kilmer, we believe in...*  
*...fostering a love of learning*  
*...developing intellectual curiosity*  
*...pursuing a passion for personal and academic success for every child*  
*...cultivating and nurturing community*

**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, be excluded from participation in, be denied the benefits of or be subjected to discrimination under any educational program or activity." The Office of Design and Construction, Office of Human Relations, and Office of Monitoring and Compliance coordinate compliance.*

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**NOTICE:** All graduation requirements documented in the 2012-2013 Standard Course Offerings Guide reflect Virginia Department of Education and Fairfax County Public Schools' expectations at the time of publication.

## **WHAT SHOULD THE MIDDLE SCHOOL STUDENT EXPECT?**

### **TIME**

School begins at 7:50 a.m. and ends at 2:40 p.m. Each class will average 48 minutes in length. Students have 4 minutes between classes.

### **LUNCH**

The lunch period is 30 minutes. The student's schedule will determine the lunch period assigned.

### **LOCKERS**

Each student is assigned a hall locker. Students will also have a locker assigned in physical education class and certain electives. Locker combinations should not be given to other students.

### **CLASSES**

Students are enrolled in seven classes each semester. Most classes will be for the entire year; some classes are only for a semester.

### **COUGARS PAWS**

All students are assigned an eighth period class designed to provide opportunities for house building activities, individual remediation, enrichment, or developing time management and organization skills.

### **HOUSES**

Middle school is the critical transitional link between the self-contained classroom of the elementary school and the departmental structure at the high school level. Our house model is an integral part of the middle school program. Teams of teachers collaborate with others in order to address the following goals:

- Create a rigorous academic program and nurturing environment
- Provide positive recognition for all students
- Identify and support diverse characteristics and needs of adolescent students
- Communicate with parents on a regular basis

### **SCHOOL COUNSELING SERVICES**

Middle school counselors help students make the transition from elementary to middle school and from middle school to high school. Each student is assigned a counselor based on his/her house assignment. School counselors help students with course selections and give assistance with day-to-day school challenges. The school counseling program is designed to facilitate academic planning appropriate to each student's abilities, interests, and life goals. Counselors promote students' personal, social, and emotional growth. Counselors implement and advocate for students by implementing appropriate intervention techniques and involving educational and community resources in the students' development as needed. Counselors provide individual and group counseling, academic guidance, crisis intervention, and career awareness activities.

### **AFTER SCHOOL ACTIVITIES**

Three days per week students may stay after school for academic support or other extra-curricular activities.

## Curriculum Overview

What courses do middle school students study?

**Seventh** grade students take the following required full-year courses:

English	Mathematics
Investigations in Environmental Science	Health/Physical Education
United States History, 1865 to the Present	

**Eighth** grade students take the following required full-year courses:

English	Mathematics
Investigating Matter and Energy	Health/Physical Education
Civics and Economics	

All students complete their seven period schedules with elective courses. A schedule is completed by making one of the following choices:

Choice 1: Two full year electives

Choice 2: One full year elective and two semester electives

Choice 3: Four semester electives

**Seventh** grade students complete their seven period schedules with these elective courses:

<u>Semester Long</u>	<u>Year Long</u>
Art Foundations	Band
Chorus	Chorus
Computer Solutions	Orchestra
Creative Writing	
Family and Consumer Science	
Introduction to Foreign Language	
Speech and Theatre Arts Appreciation	
Technology Exploration	

**Eighth** grade students complete their seven period schedules with these elective courses:

<u>Semester Long</u>	<u>Year Long</u>
Advanced Theatre Arts Appreciation	Band
Art Foundations	Chorus
Art Extensions	Orchestra
Chorus	World Language
Computer Solutions	
Creative Writing	
Digital Input Technologies	
Family and Consumer Science	
Computers in Art	
Speech and Theatre Arts Appreciation	
Technology Exploration	

## **SPECIAL PROGRAMS**

### **Advanced Academic Programs (AAP)**

Fairfax County Public Schools Advanced Academic Programs provide challenging learning experiences that are designed to meet the unique learning profile of a broad range of advanced learners. Through a continuum of opportunities, students engage in complex subject matter, preparing them for more challenging and rigorous classes as they advance in grade level. Advanced Academic courses at the middle school consist of honors courses and the Level IV center program. Students who have demonstrated high achievement, interest, and/or potential in one or more academic areas may enroll in honors courses.

### **AAP Level IV Center Program**

Fairfax County Public Schools offers a full-time classroom program for high-ability learners. Kilmer Middle School's Level IV Center Program provides specialized classes in English, science, mathematics, and social studies with differentiated instruction designed to challenge their advanced abilities. A countywide central screening committee determines eligibility for gifted center placement using test data, Gifted Behavior Rating Scale with Commentary, progress reports, and other scholastic information. Please visit <http://www.fcps.edu/is/aap/level4.shtml> for more information regarding eligibility and placement.

### **Honors Program**

Honors classes in middle school are open to all students who seek academic rigor. Students may enroll in Honors classes in any of the four core academic subject areas. Honors classes use a curriculum that extends the Program of Studies in depth and complexity. Honors classes seek to provide opportunities to build on individual student strengths, develop critical and creative thinking skills, and prepare students for advanced coursework in high school. Kilmer Middle School offers open enrollment in Honors English, science, history and mathematics at seventh and eighth grade. Mathematics 7 Honors is open enrollment for all students; however, there are specific requirements for enrollment in Algebra 1 Honors in 7<sup>th</sup> grade. Candidates for participation in the Honors Program are students who have performed well in previous classes, students who have performed at high levels on national standardized tests, and students who have consistently demonstrated a high level of academic success or outstanding ability or potential in specific subject areas.

### **English for Speakers of Other Languages (ESOL)**

The academic content of the ESOL curriculum is outlined in the FCPS ESOL Program of Studies and aligned with the Virginia Standards of Learning (SOL). ESOL students are assessed by WIDA\* English language proficiency (ELP) levels: Level 1 (Entering), Level 2 (Beginning), Level 3 (Developing), Level 4 (Expanding), Level 5 (Bridging), and Level 6 (Reaching). Students eligible for ESOL services are those with ELP levels 1, 2, 3, 4 & 5. Level 1-2 students are in ESOL classes five periods each day; Level 3 students have two periods per day, Level 4 students have one period of ESOL per day, and Level 5 students' academic progress is monitored. All ESOL students are eligible for LEP classroom and testing accommodations.

\* The Virginia Department of Education (VDOE) uses the World-Class Instruction, Design and Assessment (WIDA) English language proficiency levels.

## **Special Education Services**

The special education program at Kilmer Middle School offers a continuum of settings and a variety of services. Support for students with Learning Disabilities, Emotional Disabilities, Autism, Intellectual Disabilities, Hearing Impairments and Vision Impairments are provided through General Education Settings, General Education Settings with Special Education Support, and Special Education Settings. An Individual Education Plan (IEP), developed by the IEP team, determines which settings and services a student needs in order to access the appropriate curriculum.

General education classes with Special Education Support are composed of approximately 28-30 students and a general education teacher. Special Education support is provided by a special education teacher and can either be on a daily basis, a team taught class, or intermittently on a monitor consult basis.

We offer a variety of Special Education settings. These classes have a Special Education teacher and depending on the service, 6-12 students. Some of the classes are working on the Virginia Standards of Learning and will be expected to take the Standards of Learning (SOL) tests or the Virginia Grade Level Alternative (VGLA). The other classes are working on the Alternate Standards of Learning and these students will be expected to participate in the Virginia Alternate Assessment Program (VAAP).

Many special education students receive additional support services to address the specific needs identified in their IEP. Itinerant teachers come to Kilmer to assist students requiring occupational therapy, adapted physical education, vision/hearing services, and physical therapy. Students needing speech and language services are seen individually, or through their regular class schedule by our staff clinician.

## **Intervention/Support Classes**

Kilmer Middle School offers focused intervention classes during the school year to support students not yet demonstrating consistent mastery of grade level skills. The classes provide direct remediation of content skills necessary to understand mathematics, science, social studies, reading, and English. Students are selected for these classes based upon their report card grades, SOL scores and teacher recommendations.

### Algebra Readiness/Power Mathematics

This is a one-semester additional mathematics course. This course provides students with foundational concepts and skills to support success with current mathematics explorations and to enhance experiences with future mathematics study. The courses focuses on fundamental skills with integer operations, order of operations, equivalence, percent and percent applications, along with area and graphing concepts.

### Read 180

This is a year-long course offered to students who are reading below grade level. The program includes small group instruction that is reinforced by individualized, independent reading and practice at a computer station. The goal of this course is to enable students to be more successful in English.

### Learning Seminar

This is a one-semester course that supports students who need assistance with organization, study skills, test-taking strategies, and time-management skills to complete short and long term assignments/projects; as well as, strengthens the students' basic skills in English, social studies, and science with the goal to close learning gaps.

### Action Literacy

This is a one-semester additional English/social studies course. This course provides an opportunity for students to improve reading and study skills. Students learn reading strategies that improve comprehension of fiction and nonfiction material. The class includes direct instruction in reading, comprehension, vocabulary, and the writing process using both literature selections and social studies content material. Reading competencies addressed in the Virginia Standards of Learning are incorporated into the course objectives.

### Responsive Writing

Responsive Writing is a one-semester English Writing SOL support class for 8<sup>th</sup> grade students. This small intervention class will focus on implementing the writing process and applying the Six Traits of Writing. The classes are capped at 15 students. Built around best practices in writing such as conferring, using mentor text, and supporting real-world writing, this class offers students strategies that enable them to write effectively.

Courses are subject to staffing availability. This class will replace one of your student's elective courses.

## **PLANNING AHEAD**

Middle school is not too early to start thinking about your future choices in high school and beyond. At Kilmer Middle School, the school counselors will present classroom guidance lessons to assist students in exploring future choices in a course of study as well as career possibilities. The process of making school and career connections begins with developing an academic and career plan that reflects a student's abilities and interests; includes career goals; makes connections between education and the student's future endeavors. As parents, you can start by reviewing the promotion policy and graduation requirements outlined in this course catalog.

### **High School Level Courses**

Algebra, geometry, and foreign language are high school level courses offered to eighth graders. When middle school students meet the prerequisite and/or select these courses, their final grades are calculated into their high school grade point average and class rank. Upon successful completion of these courses, credit shall be counted for specified subjects and total number of units required for high school graduation. Parents/guardians and students should begin now to prepare for the academic options available in high school. Advanced academic programs are open to all students committed to rigorous academic work. **For all advanced programs (AP, IB, or TJHSST), algebra and the study of a world language should begin in eighth grade.** Further information about the advanced academic programs may be obtained by contacting a school counselor or coordinator at the high school.

# 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 9th grade for the first time. The following applies to 9<sup>th</sup> grade students who enter high school in 2011-2012 and beyond.

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 receive credit toward graduation for high school courses taken and passed 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 Course Requirements (8 VAC 20-131-50)		
Subject Area	Standard Credits	Verified Credits
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	
*World Language, Fine Arts or Career and Technical Ed <sup>7</sup>	2	
Economics & Personal Finance	1	
Electives <sup>4</sup>	3	
Student Selected Test <sup>5</sup>		1
<b>Total Credits</b>	<b>22</b>	<b>6</b>

\*Foreign Language is designated World Language in Fairfax County Public Schools.

<sup>1</sup> Courses completed to satisfy this requirement shall include at least two different course selections from among: Algebra I, Geometry, Algebra II, or other mathematics courses above the level of Algebra II. The Board of Education shall 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: earth sciences, biology, chemistry, or physics or completion of the sequence of science courses required for the International Baccalaureate Diploma. The Board shall approve courses to satisfy this requirement.

<sup>3</sup> Courses completed to satisfy this requirement shall include 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 as required by the Standards of Quality.

<sup>5</sup> A student may utilize additional tests for earning verified credit in computer science, technology, career and technical education, economics, or other areas as prescribed by the Board in 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 (i) the student selected verified credit and (ii) either a science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the Board as an additional test to verify student achievement.

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

# STANDARD TECHNICAL 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 9th grade for the first time. The following applies to 9<sup>th</sup> grade students who enter high school in 2012-2013 and beyond.

To graduate from high school with a Standard Technical Diploma, students shall meet the minimum requirements 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 receive credit toward graduation for high school courses taken and passed 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 Technical Diploma Course Requirements (8 VAC 20-131-50)		
Subject Area	Standard Credits	Verified Credits
English	4	2
Mathematics <sup>1</sup>	3	1
Laboratory Science <sup>2,5</sup>	3	1
History and Social Sciences <sup>3,5</sup>	4	1
Health and Physical Education	2	
Fine Arts or *World Language	1	
Economics & Personal Finance	1	
Career and Technical Education <sup>4</sup>	4	
Student Selected Test <sup>6</sup>		1
<b>Total Credits</b>	<b>22</b>	<b>6</b>

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

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

<sup>3</sup> Courses completed to satisfy this requirement shall include 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 completed to satisfy this requirement must include a career concentration as approved by the Board. If a career concentration includes a specific assessment approved by the Board and the student is eligible to take the assessment, then the student must take this assessment.

<sup>5</sup> Students who complete a career and technical education program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification or an occupational competency credential from a recognized industry or trade or professional association or acquires a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification competency credential or license for (i) the student selected verified credit and (ii) either a science or history and social science verified credit when the certification license or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the Board as an additional test to verify student achievement.

<sup>6</sup> A student may utilize additional tests for earning verified credit in computer science, technology, career and technical education, economics or other areas as prescribed by the Board in 8 VAC 20-131-110.

# ADVANCED STUDIES DIPLOMA

## 26 CREDIT DIPLOMA REQUIREMENTS FOR GRADUATION

**The requirements for a student to earn a diploma shall be those in effect when the student enters the 9<sup>th</sup> grade for the first time. The following applies to 9<sup>th</sup> grade students who enter high school in 2011-2012 and beyond.**

To graduate from high school with an Advanced Studies Diploma, students shall meet the minimum requirements as outlined below which include 26 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 receive credit toward graduation for high school courses taken and passed 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.**

<b>Advanced Studies Diploma Course Requirements (8 VAC 20-131-50)</b>		
<b>Subject Area</b>	<b>Standard Credits</b>	<b>Verified Credits</b>
English	4	2
Mathematics <sup>1</sup>	4	2
Laboratory Science <sup>2</sup>	4	2
History and Social Sciences <sup>3</sup>	4	2
*World Language <sup>4</sup>	3	
Health and Physical Education	2	
Fine Arts or Career and Technical Ed	1	
Economics & Personal Finance	1	
Electives	3	
Student Selected Test <sup>5</sup>		1
<b>Total Credits</b>	<b>26</b>	<b>9</b>

\*Foreign Language is designated World Language in Fairfax County Public Schools.

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

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

<sup>3</sup> Courses completed to satisfy this requirement shall include 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 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, economics, or other areas as prescribed by the Board in 8 VAC 20-131-110.

## **ADVANCED TECHNICAL DIPLOMA**

### **26 CREDIT DIPLOMA REQUIREMENTS FOR GRADUATION**

**The requirements for a student to earn a diploma shall be those in effect when the student enters the 9th grade for the first time. The following applies to 9<sup>th</sup> grade students who enter high school in 2012-2013 and beyond.**

To graduate from high school with an Advanced Technical Diploma, students shall meet the minimum requirements as outlined below which include 26 credits, 9 of which must be verified credits. Any student who meets the requirements for both the Advanced Studies and the Advanced Technical Diploma may choose between these two diplomas. 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 receive credit toward graduation for high school courses taken and passed 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.**

<b>Advanced Technical Diploma Course Requirements (8 VAC 20-131-110)</b>		
<b>Subject Area</b>	<b>Standard Credits</b>	<b>Verified Credits</b>
English	4	2
Mathematics <sup>1</sup>	4	2
Laboratory Science <sup>2</sup>	4	2
History and Social Sciences <sup>3</sup>	4	2
*World Language <sup>4</sup>	3	
Health and Physical Education	2	
Economics & Personal Finance	1	
Fine Arts or Career and Technical	1	
Career and Technical Education <sup>5</sup>	3	
Student Selected Test <sup>6</sup>		1
<b>Total Credits</b>	<b>26</b>	<b>9</b>

\*Foreign Language is designated World Language in Fairfax County Public Schools.

<sup>1</sup> Courses completed to satisfy this requirement shall include at least three different course selections from among: Algebra I, Geometry, Algebra II, or other mathematics courses above the level of Algebra II. The Board of Education shall approve courses to satisfy the 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 shall approve 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 World History/Geography I and World History/Geography II. AP World History satisfies the requirement for World History/Geography II.

<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> Courses completed to satisfy this requirement must include a career concentration as approved by the Board. If a career concentration includes a specific assessment approved by the Board and the student is eligible to take the assessment, then the student must take this assessment.

<sup>6</sup> A student may utilize additional tests for earning verified credit in computer science, technology, career or technical education, economics, or other areas as prescribed by the Board in 8 VAC 20-131-110.

## **MODIFIED STANDARD DIPLOMA**

### **20 CREDIT DIPLOMA REQUIREMENT 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. The following applies to 9<sup>th</sup> grade students who entered high school in 2000-2001 and beyond.**

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 including the student, when appropriate, at any point after the student's eighth grade year. There are no verified credit requirements for the Modified Standard Diploma. 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 for the literacy and numeracy requirements.

A student who has chosen to pursue a Modified Standard Diploma shall also be allowed to pursue the Standard Diploma, Advanced Studies Diploma, or Standard Technical Diploma or Advanced Technical Diploma (based on year of entry into 9<sup>th</sup> grade) at any time throughout the high school career. The student may not be excluded from courses and tests required to earn a Standard, Advanced Studies, Standard Technical, or Advanced Technical Diploma.

<b>Modified Standard Diploma Course Requirements (8 VAC 20-131-50)</b>	
<b>Subject Area</b>	<b>Standard Credits</b>
English	4
Mathematics <sup>1</sup>	3
Science <sup>2</sup>	2
History and Social Sciences <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 probability and statistics in courses that have been approved by the Board of Education.

<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 at 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 race, color, sex, religion, national origin, marital status, 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 (571-423-2280) regarding access to facilities; Office of Equity and Compliance (571-423-3050 or dial 711 for access to Telecommunications Relay Services (TRS)), regarding equal employment opportunity, discrimination, and sexual harassment issues; Due Process and Eligibility (703-317-3000), 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.

## GRADING SYSTEM

### Effective September 2009

FCPS adopted a new grading scale effective September 2009. Changes in the FCPS grading policy include a modified ten-point grading scale that uses pluses and minuses. An asterisk (\*) is used on the transcript to distinguish B+, C+, and D+ grades earned prior to September 2009. For example, B\* = B+.

A (93-100) = 4.0	C (73-76) = 2.0
A- (90-92) = 3.7	C- (70-72) = 1.7
B+ (87-89) = 3.3	D+ (67-69) = 1.3
B (83-86) = 3.0	D (64-66) = 1.0
B- (80-82) = 2.7	F (below 64) = 0.0
C+ (77-79) = 2.3	

### Grading System Prior to September 2009

A (94-100) = 4.0	C (74-79) = 2.0
B+ (90-93) = 3.5	D+ (70-73) = 1.5
B (84-89) = 3.0	D (64-69) = 1.0
C+ (80-83) = 2.5	F (below 64) = 0.0

## GRADE POINT AVERAGE

Middle schools do not calculate a grade-point average. High school grade point average (GPA) is calculated on the basis of **all courses for which high school 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.

Algebra 1 Honors, Geometry Honors, and Algebra 2 Honors receive an additional 0.5 weight added to the final grade upon successful completion of the course. Successful completion is defined as completing the course with a passing grade. For example, a final grade of A in an honors class shall receive 4.5 quality points.

High school credit bearing 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). Fairfax County Public Schools does not rank its students.

## EXPUNGING HIGH SCHOOL COURSES TAKEN IN MIDDLE SCHOOL

In accordance with Virginia state regulations, FCPS Regulation 2430 permits parents of students who take a high school credit-bearing course in middle school to request that the grade be omitted from the student's high school transcript and the student not earn high school credit for the course. ***Parents must make this request in writing no later than the end of the first nine weeks of the school year following completion of the course.*** The form to make this request, along with the process for making the request, is available at: <http://www.fcps.edu/it/forms/is104.pdf> or through your student's school counselor. Parents are strongly advised to discuss this decision with their student's school counselor and the impact of expunging a course on desired high school diploma type and standard and verified credit requirements.

## COURSES TAKEN OUTSIDE OF FCPS

Currently enrolled FCPS students who wish to take a course outside of FCPS and transfer back the credit must have written approval from their school prior to enrolling in the course. The course must meet the requirements outlined in the current version of FCPS regulation 2460 and Virginia state regulations. For additional information about pursuing coursework outside of FCPS for credit, please contact your school counselor.

## WITHDRAW POLICY

For the first grading period only, a student has five days after the date on which report cards are sent home in which to drop a course without having a grade recorded. Courses dropped are not counted in the grade point average except when an F is received for the course. Middle schools do not calculate grade-point averages; however, if a high school credit course is taken by a middle school student, courses dropped are not counted in the high school grade-point average except when an F is received for the course. Unless the principal approves an exception, a student may not withdraw during the final quarter of a course if he or she is passing the course. 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.

## **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 demonstrate proficiency in 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, at the discretion of the principal, and encouraged to participate in an intervention program. Based upon the extent to which a student demonstrates knowledge and competency of identified standards of achievement in an intervention program, he/she is promoted or retained. Students who are promoted may receive continued intervention throughout the following school year. If students do not participate in an intervention program, they are retained at the discretion of the principal.

Students who earn an “F” in three or four core courses are retained, at the discretion of the principal. To be placed in grade 9, the student must be promoted from the 8<sup>th</sup> grade.

## **WORLD LANGUAGES PROFICIENCY CREDIT**

The Credit Exam for World Languages is given each fall to students who wish to demonstrate written proficiency in one of several languages: Amharic, Arabic, Bengali, Chinese, Farsi, French, German, Hindi, Japanese, Korean, Nepali, Punjabi, Russian, Somali, Spanish, Tagalog/Pilipino, Telugu, Twi, Urdu, or Vietnamese. Students who are successful on the exam receive two world languages credits which may be used to fulfill the world languages requirements/electives of the Advanced Studies, Advanced Technical, Standard Technical or Standard Diplomas. In addition, middle school

students in grades 6-8 enrolled in ESOL 5720-5730 courses may receive up to two world languages credits towards high school graduation requirements in the two-plus-two option for fulfilling the world languages requirement. High school students enrolled in ESOL 5720 courses may receive elective or up to two world languages credits toward high school graduation requirements in the two-plus-two option for fulfilling the world languages requirement. For more information on the exam, go to: <http://www.fcps.edu/is/worldlanguages/creditem/in dex.shtml> or contact the World Languages Team at 571-423-4602.

## **ADVANCED ACADEMIC PROGRAMS**

Fairfax County Public Schools Advanced Academic Programs provide challenging learning experiences that are designed to meet the unique learning profile of a broad range of advanced learners. Through a continuum of opportunities, students engage in complex subject matter, preparing them for more challenging and rigorous classes as they advance in grade level. Advanced Academic courses at the middle school consist of honors courses and the Level IV center program. Students who have demonstrated high achievement, interest, and/or potential in one or more academic areas may enroll in honors courses. Students eligible for full time Level IV center placement have the option to take full honors at their local middle school.

Advanced Academic courses in high school are open to all students who seek academic rigor. Students have the opportunity to enroll in honors courses as underclassmen and continue in Advanced Placement (AP), International Baccalaureate (IB), and dual enrollment courses. Students may earn college credits based on the results of their examinations (AP or IB) or course grade (dual enrollment). 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 on the transfer process, please visit the web site at: <http://www.fcps.edu/is/aap/index.shtml>.

AP and IB courses are advanced-level courses with external exams. Students who take AP and IB courses are required to complete the examinations.

The Advanced Academic program 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, Level IV, IB, or AP fulfill this requirement.

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 progress from honors to AP, and IB, provides a continuous and balanced advanced academic program.

### **Advanced Placement in High School**

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 complete the end-of-course AP exam. Students may receive college credit and/or placement based upon their exam grades. The AP program is offered in English, social studies, mathematics, science, world 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 in High School**

Annandale, Edison, Lee, Marshall, Mount Vernon, Robinson, South Lakes, and Stuart High Schools offer the International Baccalaureate (IB) Diploma and the World Program. To qualify for the IB Diploma, students must select at least one subject from each of six IB subject groups including English, world languages, 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 complete the end-of-course IB exams. 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 may also take IB courses in areas of academic strength and interest. IB diploma course students take one or more IB courses and the associated exam(s) and receive recognition 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 571-423-3770 or at: <http://www.tjhsst.edu/abouttj/admissions/index.html>

## **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/Directives/topicalindexQR.shtml#REVE>. Students eligible for the federal Free and Reduced-Price meals program may have course and test fees waived. For more information, see your school counselor.

## ENGLISH

### ENGLISH 7

Grade: 7

Duration: 36 weeks (year)

Students read and study a variety of literature, building on an understanding of reading as a process that includes analyzing and comprehending texts. Language study includes vocabulary building, learning about grammar, and spelling. Through varied and frequent writing assignments, students build on their understanding of writing as a process that includes drafting, revising, editing, proofreading, and publishing. They use writing to develop ideas and learn new concepts. Students also learn discussion skills and oral communication skills, and learn to adapt speaking and listening to the audience, topic, purpose, and situation. Reading and writing competencies addressed in the Virginia Standards of Learning are incorporated into the course objectives.

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

### ENGLISH 7 HN

Grade: 7

Duration: 36 weeks (year)

This course extends the standard program of studies for English 7. As students read and study a variety of literature, building on an understanding of reading as a process that includes analyzing and interpreting the text, they make connections across time, place, and subject; perform as a practitioner or scholar in a discipline; and self-assess and reflect on their learning and the learning process. Instruction is enriched and extended through research-based practices designed to engage and challenge advanced learners, e.g. problem-based learning, research, and investigations.

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

### ENGLISH 8

Grade: 8

Duration: 36 weeks (year)

Students read and study a variety of literature, building on an understanding of reading as a process that includes analyzing and interpreting the text. Language study includes vocabulary building, learning about grammar, and spelling. Through varied and frequent writing assignments, students build on their understanding of writing as a process that includes drafting, revising, editing, proofreading, and publishing. Students practice a variety of writing forms including informational/technical and essay writing. All students learn to adapt speaking and writing skills to the audience, topic, purpose, and situation. Reading and writing competencies addressed in the Virginia Standards of Learning are incorporated into the course objectives.

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

### ENGLISH 8 HN

Grade: 8

Duration: 36 weeks (year)

This course extends the standard program of studies for English 8. As students read and study a variety of literature, building on an understanding of reading as a process that includes analyzing and interpreting the text, they make connections across time, place and subject; perform as a practitioner or scholar in a discipline; and self-assess and reflect on their learning and the learning process. Instruction is enriched and extended through research-based practices designed to engage and challenge advanced learners, e.g. problem-based learning, research, and investigations.

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

### CREATIVE WRITING

Grade: 8

Duration: 18 weeks (semester)

Students develop their creative writing skills with emphasis on building skills and expertise as writers. Instruction will focus on the writing of poetry, short stories, plays, etc. Students refine their skills using the Six

Traits of Writing through planning, drafting, revising, and editing written work. Students expand their writing skills through analyzing and evaluating their own writing and that of others.

## ENGLISH FOR SPEAKERS OF OTHER LANGUAGES

### BEGINNING ESOL ENGLISH (Section 1)

WIDA ELP Level 1 & 2

Grades: 7, 8

Duration: 36 weeks (year)

This is one of two English classes in which WIDA ELP Level 1 & 2 students may be enrolled. This class is designed to support the development of academic language and skills through alignment with the grade level Language Arts standards. It maintains a focus on vocabulary development, literacy skills and the writing process. This course may be repeated.

### BEGINNING ESOL ENGLISH (Section 2)

WIDA ELP 1 & 2 English

Grades: 7, 8

Duration: 36 weeks (year)

This is the second of two English classes in which WIDA ELP Levels 1 & 2 students may be enrolled. This class is designed to support the development of academic language and skills through alignment with the grade level Language Arts standards. It maintains a focus on vocabulary development, literacy skills and the writing process. This course may be repeated.

### ESOL US HISTORY 7

WIDA ELP LEVEL 1 & 2

Grade: 7

Duration: 36 weeks (year)

This is the Social Studies class in which grade 7 WIDA ELP Level 1 & 2 students are enrolled. It is aligned with the grade 7 Standards of Learning and the FCPS POS. This class is designed to support the development of academic language and skills through alignment with the grade level Social Studies Standards. It supports content vocabulary development as well as academic discourse of Social Studies.

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

### ESOL CIVICS & ECONOMICS 8

WIDA ELP Level 1 & 2

Grade: 8

Duration: 36 weeks (year)

This is the Social Studies class in which grade 8 WIDA ELP Level 1 & 2 students are enrolled. This class is designed to support the development of academic language and skills through alignment with the grade 8 Civics and Economics standards. It supports the development of vocabulary and academic discourse of Social Studies.

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

### ESOL FOCUS SCIENCE

WIDA ELP LEVEL 1 & 2

Grades: 7, 8

Duration: 36 weeks (year)

This course is the science course for WIDA ELP Level 1 & 2 students. It is designed to develop the academic language of science through scaffolded grade level labs. Students explore the scientific process along with key vocabulary and concepts through Life and Physical Science. This course may be repeated.

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

**ESOL FAST MATH**  
**WIDA ELP Level 1 & 2**  
**Grades: 7, 8**

**Duration: 36 weeks (year)**

This is the course for WIDA ELP Level 1 & 2 students who have significant gaps of two or more years below grade level in mathematics skills & concepts. This course is an articulated mathematics curriculum from the grade 7 mathematics standards. FAST Math is designed and developed around a framework of skills progression to accommodate multiple entry points that recognize students' different strengths and supports differentiated instruction within the FAST Math Class.

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

**DEVELOPING ESOL ENGLISH**  
**WIDA ELP LEVEL 2 & 3**  
**Grades: 7, 8**

**Credit: one**  
**Duration: 36 weeks (year)**

This is the English language class in which WIDA ELP Levels 2 & 3 students may be enrolled. This class is designed to support the development of academic language and skills through alignment with the grade level Language Arts standards. It maintains a focus on vocabulary development, literacy skills and the writing process. When appropriate, Level 3 ESOL students should be enrolled in grade level English. This course may be repeated.

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

**ESOL ACADEMIC LANGUAGE**  
**WIDA ELP LEVEL 3 & 4**  
**Grades: 7, 8**

**Credit: one**  
**Duration: 36 weeks (year)**

The class is designed to enrich students' academic language across the curriculum. Students develop academic language through targeted instruction in vocabulary, reading strategies, content writing and academic discourse models for continued success in grade level courses. WIDA ELP Level 4 students are enrolled in both this course and a grade level English class. This course may be taken by WIDA ELP Level 3 students in conjunction with Developing ESOL English (572061). This course may be repeated.

**FINE ARTS**  
**MUSIC**

**BEGINNING BAND**  
**Grades: 7, 8**  
**Prerequisite: none**

**Duration: 36 weeks (year)**

Beginning level band classes develop skills on woodwind, brass, or percussion instruments. Guidance will be given by the instructor in the selection of an instrument. Simple duets, rounds and other ensemble literature will be performed in class. Students must meet both the school day and after-school participation requirements to receive credit for the course.

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

**INTERMEDIATE BAND (Cadet band)**  
**Grades: 7, 8**  
**Prerequisite: Successful audition**

**Duration: 36 weeks (year)**

Intermediate level band students will continue to develop skills on woodwind, brass, or percussion instruments. A variety of musical styles will be studied through the playing of band literature. Students must meet both the school day and after-school participation requirements to receive credit for the course.

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

**INTERMEDIATE BAND (Concert Band)**  
**Grades: 7, 8**  
**Prerequisite: Successful audition**

**Duration: 36 weeks (year)**

Intermediate level band students will continue to develop skills on woodwind, brass, or percussion instruments. A variety of musical styles will be studied through the playing of band literature. Students must meet both the school day and after-school participation requirements to receive credit for the course.

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

**ADVANCED BAND**  
**Grades: 7, 8**  
**Prerequisite: Successful audition**

**Duration: 36 weeks (year)**

Advanced level band offers instruction to the advanced player. In-depth study of musical styles will be realized through challenging band literature. Students must meet both the school day and after-school participation requirements to receive credit for the course.

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

**PERCUSSION ENSEMBLE (Intermediate level)**  
**Grades: 7, 8**  
**Prerequisite: Successful audition**

**Duration: 36 weeks (year)**

This course is designed to meet specific needs of percussionists. Content includes study of appropriate ensemble literature, and rehearsal and performance techniques from the various areas of musical composition. Instrumentation of the group is at the discretion of the instructor. Students must meet both the school day and after-school participation requirements to receive credit for the course.

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

**BEGINNING ORCHESTRA**  
**Grades: 7, 8**  
**Prerequisite: none**

**Duration: 36 weeks (year)**

Beginning level string class introduces students to the violin, viola, cello and double bass, and develops beginning skills. Guidance will be given by the instructor in the selection of an instrument. Simple duets, rounds, and other literature will be performed in class. Students must meet both the school day and after-school participation requirements to receive credit for the course.

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

**INTERMEDIATE ORCHESTRA**  
**Grades: 7, 8**  
**Prerequisite: Successful audition**

**Duration: 36 weeks (year)**

This course offers the opportunity to participate in string orchestra ensemble. Additionally, intermediate level orchestra students will continue to develop skills on violin, viola, cello, and double bass. A variety of musical styles will be studied through the playing of appropriate string orchestra literature. Students must meet both the school day and after-school participation requirements to receive credit for the course.

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

**ADVANCED ORCHESTRA**  
**Grades: 7, 8**  
**Prerequisite: Successful audition**

**Duration: 36 weeks (year)**

Advanced Orchestra offers instruction to the experienced player through in-depth study and performance of challenging string orchestra literature, with an emphasis on upper level skills. Students must meet both the school day and after-school participation requirements to receive credit for the course.

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

### STRING ENSEMBLE

Grades: 7, 8

Duration: 36 weeks (year)

Prerequisite: Successful audition

This ensemble is designed to meet specific needs and/or interests for string instruments. Content includes study of appropriate ensemble literature, and rehearsal and performance techniques from the various areas of musical composition. Instrumentation of the group is at the discretion of the instructor. Students must meet both the school day and after-school participation requirements to receive credit for the course.

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

### CHORUS

Grades: 7, 8

Duration: 18 weeks (semester)

This course provides instruction in proper vocal techniques, music fundamentals, and rehearsal practices. Through a variety of choral literature, students will experience two and/or three-part singing. Types of performances may include concert choral performances, choral choreography, and/or musical dramas. Students must meet both the school day and after-school participation requirements to receive credit for the course.

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

### WOMEN'S CHORUS

Grades: 7, 8

Duration: 36 weeks (year)

Prerequisite: none

Students participate in a choral experience designed to develop skills as individual musicians and as members of a women's ensemble. Emphasis is placed upon vocalization and sight-singing through the use of appropriate choral literature. Students must meet both the school day and after-school participation requirements to receive credit for the course.

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

### MEN'S CHORUS

Grades: 7, 8

Duration: 36 weeks (year)

Prerequisite: none

Students participate in a choral experience designed to develop skills as individual musicians and as members of a men's ensemble. Emphasis is placed upon vocalization and sight-singing through the use of appropriate choral literature. Students must meet both the school day and after-school participation requirements to receive credit for the course.

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

### ADVANCED MIXED CHORUS

Grades: 7, 8

Duration: 36 weeks (year)

Prerequisite: Successful audition

This course offers advanced instruction in vocal techniques, music fundamentals, and sight reading. Through a variety of challenging choral literature, students will experience three and/or four-part singing. Types of performances may include concert choral performances, choral choreography, and/or musical dramas. Students must meet both the school day and after-school participation requirements to receive credit for the course.

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

### ADVANCED WOMEN'S CHORUS

Grades: 7, 8

Duration: 36 weeks (year)

Prerequisite: Successful audition

This course offers advanced instruction in vocal techniques, music fundamentals, and sight-reading. Through a variety of challenging choral literature, students will experience three and/or four-part singing. Types of performances may include concert choral performances, choral choreography, and/or musical dramas. Students must meet both the school

day and after-school participation requirements to receive credit for the course.

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

## FINE ARTS THEATRE ARTS

### SPEECH AND THEATRE ARTS APPRECIATION

Grades: 7, 8

Duration: 18 weeks (semester)

Students develop an appreciation of speech and theatre arts through an introduction to the basic concepts and skills relating to oral communication and acting. They begin to develop poise and confidence in speaking, and they develop skills in listening, collaborating, and discussing in group situations. They participate in a variety of dramatic activities by exploring improvisation and interpretation. Course may consist of speech topics, drama topics, or a combination of both.

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

### ADVANCED THEATRE ARTS APPRECIATION

Grade: 8

Duration: 18 weeks (semester)

Prerequisite: Theatre Arts Course in Grade 7 and/or recommendation of the theatre or speech arts instructor.

Students who are continuing the study of theatre arts for a second year will be taught to apply and expand the skills developed in the introductory class. They will participate in a variety of dramatic activities and perform for varied audiences. This course is designed for students who are interested in an expanded study of theatre arts and oral communication.

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

## FINE ARTS VISUAL ARTS

### ART FOUNDATIONS

Grades: 7, 8

Duration: 18 weeks (semester)

Explore a variety of art materials, develop art techniques, and use creative thinking skills to express ideas and viewpoints about personal experiences and the world. Produce meaningful and unique drawings, paintings, prints, sculptures, ceramics and crafts in a studio setting. Study artists and their works to gain understanding of the artistic process and learn about art produced at different times and in diverse cultures. Make interdisciplinary connections based on the Virginia Standards of Learning for all disciplines.

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

### ART EXTENSIONS

Grade: 8

Duration: 18 weeks (semester)

Prerequisite: Art Foundations or 8<sup>th</sup> grade standing

Use new materials and techniques to refine art-making skills. Students begin to develop a personal style and attain a high level of quality and craftsmanship in drawing, painting, printmaking, sculpture, ceramics and crafts. Interpret and express feelings and ideas in innovative ways and make interdisciplinary connections based on the Virginia Standards of Learning for all disciplines. Study artists from different times and diverse cultures and learn to critique personal artworks and the works of others to inform art-making.

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

## COMPUTERS IN ART

**Grade: 8** **Duration: 18 weeks (semester)**  
**Prerequisite: Art Foundations or eighth grade standing**

Integrate the computer and associated technology with traditional art media and practices to create original artwork. Work with a variety of software applications including Adobe Photoshop and Adobe Illustrator or other available software to explore subjects, ideas and themes related to living in the world. Make interdisciplinary connections based on the Virginia Standards of Learning for all disciplines and develop knowledge regarding ethical issues concerning computer generated imagery. Prior computer experience is not required.

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

## HEALTH and PHYSICAL EDUCATION

### HEALTH AND PHYSICAL EDUCATION 7

**Grade: 7** **Duration: 36 weeks (year)**

Students strengthen and/or master basic skills developed at the elementary level. Emphasis is on highly organized lead-up activities, modified games, and fitness and wellness activities. Content areas include rhythmic activities and dance, physical fitness, wellness-related testing, fitness planning, and application of skills in selected games and sports. Health units include alcohol, tobacco, and other drug use prevention, personal safety, injury and violence prevention, community and consumer health, emotional and social health, and human growth and development.

### HEALTH AND PHYSICAL EDUCATION 8

**Grade: 8** **Duration: 36 weeks (year)**

Students continue to strengthen and/or master basic skills, and participate in wellness activities and wellness-related testing and fitness planning. Content areas include rhythmic activities and dance, and application of skills in selected games and sports. Students participate in lifetime sports and activities for lifetime wellness planning. Health units include alcohol, tobacco, and other drug use prevention, personal safety, injury and violence prevention, community and consumer health, emotional and social health, and human growth and development.

### ADAPTED PHYSICAL EDUCATION

**Grades: 7, 8** **Duration: 36 weeks (year)**  
**Prerequisite: Student's I.E.P. designates Adapted Physical Education**

Adapted physical education is a developmental course for general education and/or special education students. This course serves students who are temporarily or permanently physically disabled or have deficiencies in motor coordination and/or physical fitness. This course is individualized and is directed toward improvement of deficiencies. The course includes specifically selected activities that are designed for the student's level of performance and designed to improve deficiencies, and maximize participation. Students in adapted physical education will participate in health education units required of their grade level.

## MATHEMATICS

### MATHEMATICS 7

**Grade: 7** **Duration: 36 weeks (year)**  
**Prerequisite: Grade 6 mathematics**

Students examine algebra- and geometry-preparatory concepts and skills; strategies for collecting, analyzing, and interpreting data; and number concepts and skills especially proportional reasoning. Reasoning, problem solving, communication, concept representation, and connections among mathematical ideas are emphasized in a hands-on learning environment.

Graphing calculators and computers are integrated with instruction. This course provides students the opportunity to acquire the concepts and skills necessary for success in Algebra I or Algebra I Honors.

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

### MATHEMATICS 7 HN

**Grade: 7** **Duration: 36 weeks (year)**

The depth and level of understanding in Mathematics 7 Honors is beyond the scope of Mathematics 7. This course is based on Mathematics 8 curriculum and includes extensions and enrichment. Emphasis is placed on mathematical reasoning, non-routine problem solving, and algebraic connections among mathematical ideas. This course provides students the opportunity to acquire the concepts and skills necessary for success in Algebra I or Algebra I Honors.

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

### MATHEMATICS 8

**Grade: 8** **Duration: 36 weeks (year)**  
**Prerequisite: Mathematics 7**

Students extend their study of algebra- and geometry-preparatory concepts and skills; strategies for collecting, analyzing, and interpreting data; and number concepts and skills especially proportional reasoning. Reasoning, problem solving, communication, concept representation, and connections among mathematical ideas are emphasized in a hands-on learning environment. Graphing calculators and computers are integrated with instruction. This course provides students the opportunity to acquire the concepts and skills necessary for success in Algebra I or Algebra I Honors.

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

### ALGEBRA 1

**Grade: 8** **Credit: one**  
**Duration: 36 weeks (year)**  
**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, polynomials, and statistics.

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

### ALGEBRA 1 HONORS

**Grades: 7, 8** **Credit: one/weighted +.5**  
**Duration: 36 weeks (year)**  
**Prerequisite: Mathematics 7**

The depth and level of understanding expected in Algebra I Honors is beyond the scope of Algebra I. Students are expected to master algebraic mechanics and understand the underlying theory, as well as apply the concepts to real-world situations in a meaningful way. Students extend knowledge and understanding of the real number system and its properties through the study of variables, expressions, equations, inequalities, and the analysis of data from real world phenomena. Emphasis is placed on algebraic connections to arithmetic, geometry, and statistics. Calculators and computer technologies are integral tools. Graphing calculators are an essential tool for every student to explore graphical, numerical, and symbolic relationships.

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

Students who have mastered the standards of Mathematics 7 and 8 in grade 7 are eligible to take either Algebra 1 or Algebra 1 Honors in grade 8. Algebra becomes a part of the high school transcript record, is included in the determination of the high school grade point average (GPA), and counts as one of the required mathematics credits for high school graduation. Parents may request that the Algebra grade be omitted from the student's

transcript and the student not earn high school credit for the course. Students taking Algebra in grade 8 must pass the course to be promoted to grade 9.

### **GEOMETRY HONORS**

**Grade: 8**

**Prerequisite: Algebra 1**

**Duration: 36 weeks (year)**

**Credit: one/weighted +.5**

The depth and level of understanding expected in Geometry Honors is beyond the scope of Geometry. 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. Students investigate non-Euclidean geometries, formal logic, and use deductive proofs to verify theorems. 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.**

*It is recommended/required that 8<sup>th</sup> grade students take Algebra I and a world language if they are considering Thomas Jefferson High School for Science and Technology (TJHSST) or an Advance Placement (AP) or International Baccalaureate (IB) diploma.*

## **SCIENCE**

### **INVESTIGATIONS IN ENVIRONMENTAL SCIENCE**

**Grade: 7**

**Duration: 36 weeks (year)**

Investigations in Environmental Science builds upon the experiences in the life sciences introduced to students in upper-elementary grades. Cellular structure and function, heredity, diversity, populations and ecosystems are content strands developed through a sequence of hands-on investigations. To augment the inquiry-based investigations, computer technologies including graphing calculators, Vernier probe ware, CD-ROMs, and streaming videos are used to build background knowledge and enhance student understanding. Process skills related to scientific investigation, reasoning, and logic are integrated throughout the course as students carry out investigations, collect and analyze data, and formulate conclusions.

### **INVESTIGATIONS IN ENVIRONMENTAL SCIENCE HN**

**Grade: 7**

**Duration: 36 weeks (year)**

This course extends the standard program of studies for life science. As they study the content strands of cellular structure and function, heredity, diversity, populations and ecosystems the students will think conceptually; make connections across time, place and subject areas; perform as a practitioner or scholar in a discipline; and self-assess and reflect on their learning and the learning process. Instruction is enriched and extended through research-based practices designed to engage and challenge advanced learners, e.g. problem-based learning, research, and investigations.

### **INVESTIGATING MATTER AND ENERGY**

**Grade: 8**

**Duration: 36 weeks (year)**

Investigating Matter and Energy builds upon the experiences in the physical sciences introduced to students in the upper-elementary grades. Properties of matter, energy forms and their transformations, and forces and motion are content strands developed through a sequence of hands-on investigations. To augment the inquiry-based investigations, computer technologies including graphing calculators, Vernier probe ware, CD-ROMs, and streaming videos are used to build background knowledge and enhance student understanding. Process skills related to scientific investigation, reasoning, and logic are integrated throughout the course as students carry

out investigations, collect and analyze data, and formulate conclusions. The end of course test covers content from grades 6, 7, and 8.

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

### **INVESTIGATING MATTER AND ENERGY HN**

**Grade: 8**

**Duration: 36 weeks (year)**

This course extends the standard program of studies for Investigating physical science. As they study the content strands of properties of matter, energy forms and their transformations, and forces and motion the students will think conceptually; make connections across time, place and subject areas; perform as a practitioner or scholar in a discipline; and self-assess and reflect on their learning and the learning process. Instruction is enriched and extended through research-based practices designed to engage and challenge advanced learners, e.g. problem-based learning, research, and investigations. The end of course test covers content from grades 6, 7, and 8.

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

## **SOCIAL STUDIES**

### **UNITED STATES HISTORY, 1865 TO THE PRESENT**

**Grade: 7**

**Duration: 36 weeks (year)**

The grade seven program provides a survey of American history since 1865. This course incorporates the four strands of history, geography, civics, and economics. Important trends in American history are identified by the analysis of the role of ideas, individuals, and important events. Students develop historical-thinking skills and extend their understanding of how economics and geography shapes history.

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

### **US HISTORY 7 HN**

**Grade: 7**

**Duration: 36 weeks (year)**

This course extends the standard program of studies for US History in grade 7, a survey of American history since 1865. As they study the four strands of history, geography, civics, and economics the students will think conceptually; make connections across time, place and subject areas; perform as a practitioner or scholar in a discipline; and self-assess and reflect on their learning and the learning process. Instruction is enriched and extended through research-based practices designed to engage and challenge advanced learners, e.g. problem-based learning, research, and investigations.

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

### **CIVICS AND ECONOMICS**

**Grade: 8**

**Duration: 36 weeks (year)**

The grade eight program is designed to prepare students to be responsible, productive citizens in a democratic republic and an interconnected world. Students will gain an understanding of the concepts and processes of democratic government and the American economic system. Students examine the role that citizens play in the political, governmental, and economic systems in the United States. Students will acquire knowledge of the structure and operation of these systems at the national, state and local levels. A service learning component helps students personalize citizenship education.

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

**CIVICS 8 HN****Grade: 8****Duration: 36 weeks (year)**

This course extends the standard program of studies for Honors Civics and Economics in grade 8 which is designed to prepare students to be responsible, productive citizens in a democratic republic and an interconnected world. As they gain an understanding of the concepts and processes of democratic government and the American economic system the students will think conceptually; make connections across time, place and subject areas; perform as a practitioner or scholar in a discipline; and self-assess and reflect on their learning and the learning process. Instruction is enriched and extended through research-based practices designed to engage and challenge advanced learners, e.g. problem-based learning, research, and investigations. A service learning component helps students personalize citizenship education.

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

## WORLD LANGUAGES

**INTRODUCTION TO FOREIGN LANGUAGE (IFL)****Grade: 7****Duration: 18 weeks (semester)****Prerequisite: none**

Students are introduced to one or more world languages and cultures. The languages most often studied are French, German, Latin, and Spanish, but Chinese, Japanese, and Russian may also be included. Students learn the most basic structures, vocabulary, and expressions in each language and study the culture of the people who speak them. They are exposed to the basic steps and study habits necessary to learn a world language. Students are made aware of how knowledge of world languages enriches a person's life and expands the options of career goals. The 18-week course can include as many as four languages. This course does not count as a world languages credit.

**FRENCH 1****Grade: 8****Credit: one****Credit: one Duration: 36 weeks (year)****Prerequisite: none**

Students develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. This communication is evidenced in all four language skills - listening, speaking, reading and writing - with emphasis on the ability to communicate orally and in writing. Students begin to explore and study the POS themes of Personal and Family Life, School Life, Social Life, and Community Life. For middle school students, this credit becomes a part of the high school transcript, is included in the determination of the high school grade point average (GPA), and counts toward fulfilling the world languages requirement of the high school Advanced Studies diploma. It also counts toward the total number of credits required for graduation.

**SPANISH 1****Grade: 8****Credit: one****Duration: 36 weeks (year)****Prerequisite: none**

Students develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. This communication is evidenced in all four language skills - listening, speaking, reading and writing - with emphasis on the ability to communicate orally and in writing. Students begin to explore and study the POS themes of Personal and Family Life, School Life, Social Life, and Community Life. For middle school students, this credit becomes a part of the high school transcript, is included in the determination of the high school grade point average (GPA), and counts toward fulfilling the world languages requirements of the high school Advanced Studies diploma. It also counts toward the total number of credits required for graduation.

**SPANISH FOR FLUENT SPEAKERS 1****Grade: 8****Credit: one****Duration: 36 weeks (year)****Prerequisite: Permission from instructor**

This course offers fluent speakers of Spanish the opportunity to strengthen their basic skills in reading and writing Spanish. The students learn about the Hispanic contributions to the English language and American culture. The students also study the major historical figures and events of Spanish-speaking countries. The course is conducted in Spanish and counts toward fulfilling the world languages requirement. Middle School: credit becomes a part of the high school transcript, is included in the determination of the high school grade point average (GPA), and counts toward fulfilling the world languages requirements of the high school Advanced Studies diploma. It also counts toward the total number of credits required for graduation.

**CHINESE 1****Grade: 8****Credit: one****Duration: 36 weeks (year)****Prerequisite: none**

Students develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. This communication is evidenced in all four language skills - listening, speaking, reading and writing - with emphasis on the ability to communicate orally and in writing. Students begin to explore and study the themes of Personal and Family Life, School Life, Social Life, and Community Life. For middle school students, this credit becomes a part of the high school transcript, is included in the determination of the high school grade point average (GPA), and counts toward fulfilling the world languages requirement of the high school Advanced Studies diploma. It also counts toward the total number of credits required for graduation.

**CHINESE 1 PART A****Grade: 7****Credit: non-credit****Duration: 18 weeks (semester)****Prerequisite: Foreign Language in the Elementary School (FLES)**

Students begin to develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. This communication is evidenced in all four language skills - listening, speaking, reading and writing - with emphasis on the ability to communicate orally and in writing. Students begin to explore and study the POS themes and topics of Chinese Level 1. Students also explore traditions, customs, beliefs, and cultural contributions and how these elements relate to language. This course does not count as a world languages high school credit.

**CHINESE 1 PART B****Grade: 8****Credit: one****Duration: 36 weeks (year)****Prerequisite: Chinese 1, Part A**

Students continue to develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. This communication is evidenced in all four language skills - listening, speaking, reading and writing - with emphasis on the ability to communicate orally and in writing. Students continue to explore and study the POS themes of Personal and Family Life, School Life, Social Life, and Community Life. Credit becomes a part of the high school transcript, is included in the determination of the high school grade point average (GPA), and counts towards fulfilling the world languages requirement of the high school Advanced Studies diploma. It also counts towards the number of credits required for high school graduation.

**LATIN 1****Grade: 8****Credit: one****Duration: 36 weeks (year)****Prerequisite: none**

Students learn basic language structures and essential elements of Latin pronunciation in order to be able to read simple passages in Latin. The relationship of English to Latin is emphasized in vocabulary building, word derivation, and meanings of prefixes and suffixes. Language structures and syntax are developed through the study of literary passages. The geography, history, government and the culture of the Roman Empire are studied. For middle school students, this credit becomes a part of the high school transcript, is included in the determination of the high school grade point average (GPA), and counts toward fulfilling the world languages requirements of the high school Advanced Studies diploma. It also counts toward the total number of credits required for graduation.

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## BUSINESS & INFORMATION TECHNOLOGY

### COMPUTER SOLUTIONS

Grades: 7, 8

Duration: 18 weeks (semester)

Computer Solutions teaches concepts in database, spreadsheet, presentation, publishing, and Internet skills. The Computer Solutions course extends student expertise in a project-based curriculum. The Computer Solutions course is intended to serve as a bridge to the high school business department curriculum.

### DIGITAL INPUT TECHNOLOGIES

Grade: 8

Duration: 18 weeks (semester)

Prerequisite: Computer Solutions or equivalent skill

Digital Input Technologies introduces new and emerging input devices (e.g., speech- and handwriting-recognition software, headset/microphone, personal data assistant [PDA], scanner, digital camera, digital video camera, keyboard, and mouse) to prepare students for using tools that are becoming standard in the workplace and in everyday life.

## FAMILY & CONSUMER SCIENCES

### FAMILY AND CONSUMER SCIENCES 7

Grade: 7

Duration: 18 weeks (semester)

This semester course uses higher order thinking skills that will help students develop responsible and positive attitudes toward their societal roles. Through lab experiences and simulated activities with peers, students will develop basic skills in sewing, clothing care, food management, care of others, and management of space and self.

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

### FAMILY AND CONSUMER SCIENCES 8

Grade: 8

Duration: 18 weeks (semester)

This semester course uses higher order thinking skills and simulated life experiences that enable the student to meet challenges in clothing and food management, career awareness, fitness and wellness, personal development, and relationships with others. Career exploration activities assist students with high school course selection.

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

## TECHNOLOGY AND ENGINEERING EDUCATION

### TECHNOLOGY EXPLORATION 7

Grade: 7

Duration: 18 weeks (semester)

This course challenges young men and women of all levels to develop higher order problem solving skills by stimulating creativity in a hands-on learning environment. Academic subject disciplines such as applied physics, algebra and geometry powerfully come alive as students design, build and test modern structure and vehicle prototypes. Students acquire 21st Century Skills like communication and team problem solving, through the mastery of engineering concepts such as CAD and mechanical advantage. Schools equipped with modular "synergistic" labs provide active exploration of a wide variety technologies and related careers in a dynamic computer based-learning environment.

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

### TECHNOLOGY EXPLORATION 8

Grade: 8

Duration: 18 weeks (semester)

In this course young men and women will experience how science, technology, engineering, and mathematics interact to create our technological society. By active participation in research, design, fabrication, and prototype testing, students will explore various topics in Technology, such as structural engineering and transportation systems. Students will develop problem solving strategies and work place skills that will be useful in 21st century careers. This course is a dynamic approach to many academic subject areas to include mathematics and science by physically demonstrating these concepts in real world applications with a focus on critical thinking skills and problem solving. Schools equipped with modular "synergistic" labs provide active exploration of a wide variety technologies and related careers in a computer based-learning environment.

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

### TECHNOLOGY EDUCATION

Grade: 7

Duration: 18 weeks (semester)

Prerequisite: Placement in the AAP Level IV program

This course provides opportunities for students to apply technology to real world situations. The academic subjects become relevant through simulations of the professional and technical worlds of technology. State of the art technologies and processes will be available as students investigate, collect, organize, analyze, interpret and present their results. Students will be encouraged to use creative and critical thinking to acquire skills to be independent learners and decision makers as they rotate through content organizers of communication, transportation and manufacturing.

### AVID

#### Advancement via Individual Determination

Grade: 8

Duration: 36 weeks (year)

Prerequisite: Participants selected through application and interview process.

Corequisite: Concurrent enrollment in either algebra or a world language.

This course is designed to support motivated, capable students in pursuing a rigorous course of study leading to acceptance to and success in a four-year college or university. Through a variety of instructional techniques, students develop skills in higher-level thinking, writing across the curriculum, and reading strategies for accessing challenging course material. Students develop time management, note taking, research, organization, and other skills fundamental to success in higher-level math, social studies, English, science, and world language courses. Students participate in college, career, and cultural exploration activities, including field trips.