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<p><b>NOTICE:</b> 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.</p>
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**Graduation  
Requirements for  
Students Entering the  
9<sup>th</sup> Grade for the First  
Time Prior to  
2011-2012**

# 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 entered high school prior to 2011-2012.

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	
Fine Arts or Career and Technical Ed	1	
Electives <sup>4</sup>	5	
Student Selected Test <sup>5</sup>		1
<b>Total Credits</b>	<b>22</b>	<b>6</b>

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

<sup>2</sup> Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines: earth sciences, biology, chemistry, or physics. The Board may approve additional courses to satisfy this requirement.

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

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

<sup>5</sup> A student may utilize additional tests for earning verified credit in computer science, technology, career and technical education or other areas as prescribed by the Board of Education 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 educational 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 sciences verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the Board of Education as an additional test to verify student achievement.

## **ADVANCED STUDIES DIPLOMA**

### **24 CREDIT DIPLOMA REQUIREMENTS FOR GRADUATION**

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

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

Students 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 Science <sup>3</sup>	4	2
*World Language <sup>4</sup>	3	
Health and Physical Education	2	
Fine Arts or Career and Technical Ed	1	
Electives	2	
Student Selected Test <sup>5</sup>		1
<b>Total Credits</b>	<b>24</b>	<b>9</b>

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

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

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

<sup>3</sup> Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and 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 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.

**Graduation  
Requirements for  
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9<sup>th</sup> Grade for the First  
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# 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.

# 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.**

Advanced Studies Diploma Course Requirements (8 VAC 20-131-50)		
Subject Area	Standard Credits	Verified Credits
English	4	2
Mathematics <sup>1</sup>	4	2
Laboratory Science <sup>2</sup>	4	2
History and Social 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.

# 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.

### **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.

**Additional Diploma  
Options for Students  
Entering the 9<sup>th</sup> Grade  
for the First Time in  
2012-2013 and Beyond**

# 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 diploma type applies to 9th 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.**

<b>Standard Technical 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>	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>

\*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, 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 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 diploma type applies to 9th 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</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.

## STATE DIPLOMA SEALS

1. The **Governor's Seal** shall be awarded to students who complete the requirements for an Advanced Studies or Advanced Technical Diploma with an average grade of "B" or better and successfully complete college-level coursework that will earn the student at least nine transferrable college credits in Advanced Placement (AP), International Baccalaureate (IB), Cambridge, or dual enrollment courses.
2. Students who complete the requirements for a Standard, Standard Technical, Advanced Studies, or Advanced Technical Diploma with an average grade of "A" shall receive a **Board of Education Seal** on the diploma.
3. The **Board of Education's Career and Technical Education Seal** will be awarded to students who earn a Standard, Standard Technical, Advanced Studies, or Advanced Technical Diploma and complete a prescribed sequence of courses in a career and technical education concentration or specialization that they choose and maintain a "B" or better average in those courses OR pass an examination or an occupational competency assessment in a career and technical education concentration or specialization that confers certification or occupational competency credential from a recognized industry, trade or professional association OR acquire a professional license in that career and technical education field from the Commonwealth of Virginia. The Board shall approve all professional licenses and examinations used to satisfy these requirements.
4. The **Board of Education's Seal of Advanced Mathematics and Technology** will be awarded to students who earn a Standard, Standard Technical, Advanced Studies, or Advanced Technical Diploma and (i) satisfy all of the mathematics requirements for the Advanced Studies or Advanced Technical Diploma (four units of credit including Algebra II; two verified units of credit) with a "B" average or better; and (ii) either (a) pass an examination in a career and technical education field that confers certification from a recognized industry, or trade or professional association; (b) acquire a professional license in a career and technical education field from the Commonwealth of Virginia; or (c) pass an examination approved by the Board that confers college-level credit in a technology or computer science area. The Board shall approve all professional licenses and examinations used to satisfy these requirements.
5. The **Board of Education's Seal for Excellence in Civics Education** will be awarded to students who earn a Standard, Standard Technical, Advanced Studies, Advanced Technical Diploma, or Modified Standard Diploma and: (i) complete Virginia and United States History and Virginia and United States Government courses with a grade of "B" or higher; and, (ii) have good attendance and no disciplinary infractions as determined by local school board policies and, (iii) complete 50 hours of voluntary participation in community service or extracurricular activities. Activities that would satisfy the requirements of clause (iii) of this subdivision include: (a) volunteering for a charitable or religious organization that provides services to the poor, sick or less fortunate; (b) participating in Boy Scouts, Girl Scouts, or similar youth organizations; (c) participating in JROTC; (d) participating in political campaigns or government internships, or Boys State, Girls State, or Model General Assembly; or (e) participating in school-sponsored extracurricular activities that have a civics focus. Any student who enlists in the United States military prior to graduation will be deemed to have met this community service requirement.

(NOTE: As in the past, the Board of Education Seal and the Governor's Seal are not to be interchanged among diplomas and may only be used when the conditions cited have been met. The seal should be placed in the lower left quarter of the diploma. Students who earn the Board of Education or the Governor's Seal may also earn the Career and Technical Education, the Advanced Mathematics and Technology, or the Civics Education Seals.)

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

### 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

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.

Advanced Placement (AP) courses and specified International Baccalaureate (IB) courses receive an additional 1.0 added to the final grade upon successful completion of the course. Successful completion is defined as completing the course with a passing grade and completing the corresponding AP or IB exam. For example, a final grade of A in an AP/IB course shall receive 5.0 quality points for purposes of calculating grade point average.

Honors courses in mathematics, science, English, social studies, and designated Thomas Jefferson High School courses, 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. In these disciplines, students have a choice of taking either a non-weighted standard level course or the weighted honors level course.

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.

## PASS-FAIL

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

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

## AUDIT

In special circumstances, students may be allowed to attend one course without receiving credit for it. The audit application must be completed, submitted, and approved prior to the beginning of the course. Students may audit a course one year and then take it for credit the next year. Students who audit a course must meet all attendance requirements and strive toward completion of POS standards, benchmarks, and indicators. The decision may not be reversed with the exception of ESOL students placed in a content class who may be changed from audit to credit status at the request of the content teacher and ESOL department chair if the student demonstrates mastery of the course content.

## 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.

### High School

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

To be placed in grade:	The student must:
9	Be promoted from 8th grade
10	Be promoted from 9 <sup>th</sup> grade and earned at least 5 standard units of credit.
11	Earned at least 10 standard units of credit.
12	Have a planned program providing for sufficient credits to qualify for graduation the following June or August.

## 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/index.shtml> or contact the World Languages Team at 571-423-4602.

## POSTSECONDARY PLANNING

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

## ADVANCED ACADEMIC PROGRAMS

Advanced Academic Programs at the high school level are comprised of honors courses at the 9<sup>th</sup> and 10<sup>th</sup> grade levels, and the Advanced Placement (AP) or International Baccalaureate (IB) programs at the 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grade levels. Advanced Academic Programs are open to all students committed to rigorous academic work. Student transfer applications may be submitted for an AP or IB program if the base school does not offer the desired program of study. For more information on the program 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. **(For more information, see Grade Point Average.)**

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, IB or AP fulfill this requirement.

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

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

### **Advanced Placement**

Centreville, Chantilly, Fairfax, Falls Church, Hayfield, Herndon, Lake Braddock, Langley, Madison, McLean, Oakton, South County, West Potomac, West Springfield, Westfield, and Woodson High Schools offer the Advanced Placement (AP) program. Individual AP courses are also offered at other high schools. All students enrolled in an AP course are required to 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**

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.

Annandale, Lee, Mount Vernon, South Lakes, and Stuart offer the IB Career-related Certificate (IBCC). To qualify for the IBCC students must complete a 2-year CTE sequence, 2 IB DP courses and demonstrate world language acquisition. IBCC candidates must also complete community service, take the Approaches to Learning course, and complete a reflective project related to their CTE course of study.

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>.

## CAREER AND TECHNICAL EDUCATION

Course descriptions for Career and Technical Education (CTE) courses can be found under Business and Information Technology, Family and Consumer Sciences, Health and Medical Sciences, Marketing, Technology Education, and Trade and Industrial in sections of the *Standard Course Offerings* guide. School counselors can provide further information on courses available at the following locations: Chantilly, Edison, Fairfax, Falls Church, Marshall, and West Potomac High School Academies, as well as at Tysons Corner Center, Fair Oaks Shopping Center, and Spring Village Residential Construction Site. Please visit the CTE web site at <http://www.fcps.edu/is/cte/index.shtml>.

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

### STUDENT FEES

Courses that require a student fee for consumable materials have been designated in this catalog. The schedule of divisionwide student fees to be charged for any elective course can be found in Notice5922 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.

Notes:

## FCPS ONLINE COURSES

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

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

The following courses are currently available online:

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

## HIGH SCHOOL ACADEMIES

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

### 2011-2012 HIGH SCHOOL ACADEMY COURSE OFFERINGS

#### CHANTILLY ACADEMY: Engineering and Scientific Technology; Health and Human Services

<http://www.fcps.edu/ChantillyAcademy/>

Air Force JROTC	Criminal Justice	Exploring Health Sciences
Animal Science	Culinary Arts	Exploring the Language of Medicine
Automotive Collision Service	Dental Careers	Geographic Information Systems
Automotive Technology	Early Childhood Careers	Girls Exploring Engineering (Engineering Sys.)
Carpentry	Engineering Mathematics	Independent Research – Engineering
Cisco	Engineering Physics	Medical Assistant
Computer Systems Technology - A+	Engineering Systems	Network Administration (Microsoft)
Cosmetology	Entrepreneurship	Oracle
		Pharmacy Technician

#### EDISON ACADEMY: International Studies and Business; Engineering and Scientific Technology

<http://www.fcps.edu/EdisonAcademy>

Animal Science	Cosmetology	Hotel Marketing
Automotive Collision Service	Culinary Arts	Landscape Architecture & Turf Management
Automotive Technology	Electrical Construction & Engineering	Network Administration (Microsoft)
Computer Systems Technology - A+	Heating, Ventilation, AC, & Refrigeration	Oracle

#### FAIRFAX ACADEMY: Communications and the Arts

<http://www.fcps.edu/FairfaxAcademy/>

Chinese	Korean	Professional Photography Studio
Dance	Music and Computer Technology	Professional Television Production
Fashion Design	Professional Musical Theatre & Actor's Studio	

#### FALLS CHURCH ACADEMY: Health and Human Services

<http://www.fcps.edu/FallsChurchHS/academy/index.html>

Criminal Justice	Exploring the Language of Medicine	Pharmacy Technician
Dental Careers	Fire and Emergency Medical Sciences	Practical Nursing
Exploring Health Sciences	Medical Assistant	

#### MARSHALL ACADEMY: International Studies and Business; Engineering and Scientific Technology

<http://www.fcps.edu/MarshallAcademy/>

Aerospace Science	Computer Systems Technology - A+	Entrepreneurship
Automotive Collision Service	Cosmetology	Hotel Marketing
Automotive Technology	Criminal Justice	Network Administration (Microsoft)
Chinese	Culinary Arts	

#### WEST POTOMAC ACADEMY: Communications and the Arts; Health and Human Services

<http://www.fcps.edu/WestPotomacAcademy/>

Criminal Justice	Exploring Health Sciences	Music and Computer Technology
Dance	Exploring the Language of Medicine	Pharmacy Technician
Dental Careers	Fashion Design	Physical Therapy/Occupational Therapy
Early Childhood Careers	Medical Assistant	Professional Television Production

## BUSINESS & INFORMATION TECHNOLOGY

### ACCOUNTING (632000)

Grades: 9, 10, 11, 12

Credit: one

Accounting offers students the opportunity to learn about the financial operations of modern business enterprises and prepares students to make better financial decisions for the future. Students study accounting concepts for sole proprietorships, partnerships, and corporations to understand the fundamental accounting equation, the business transaction analysis process, and the elements of financial reporting. Interpretation of accounting information is mastered through decision-making and problem-solving approaches that include source documents, case studies, and simulations. Technology integration and related accounting software applications are used to enhance skills to analyze and evaluate financial situations. Internet learning activities are used to reinforce research, communication, and team building skills. Course topics include forms of ownership, accounts receivable/accounts payable systems, payroll, taxes, and banking activities. Upon completion of this course, students will be able to complete an accounting cycle from transactions to financial statements. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

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

### ADVANCED ACCOUNTING (632100)

Grades: 10, 11, 12

Credit: one

Prerequisite: Accounting (632000)

Students continue to master accounting principles and procedures, adding new topics about managerial accounting, cost accounting, financial analysis, and business ethics. Content areas include property, plant and equipment, corporate investments, bonds, notes payable and receivables, amortizations, cash flow statements, and ratio analysis for the corporate structure. Spreadsheet analysis and accounting software applications provide the opportunity for higher-level thinking skill activities and authentic simulations enhance teamwork, decision making, and communication skills. Students also develop an understanding of career opportunities as they complete career exploration activities. Upon completion, students should be able to demonstrate an understanding of the principles of decision making, problem solving and critical thinking, and apply them to both business and personal financial situations. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. This course is also available online.

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

### ADVANCED INFORMATION SYSTEMS (661300)

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: Information Systems (661200), Computer Solutions (615030, 31, 32), Digital Input Technologies (660932) or equivalent skill

Advanced Information Systems provides students with the opportunity to develop professional computer and technology skills in a project-oriented and student-centered environment. Working independently or in teams, students apply problem-solving, decision-making, creative-thinking, and communication skills to relevant, real-life situations through a series of software and peripheral applications. Instruction in current and emerging information technology includes operating systems, networking and

hardware principles, document preparation, presentation tools, spreadsheet analysis and charts preparation, relational database management, technical writing, desktop publishing, copyright issues, and basic web page design. Upon completion of this course, students will be able to apply technology to analyze and solve problems and to complete technology tasks efficiently and effectively. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

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

### ADVANCED PROGRAMMING (664100)

Grades: 10, 11, 12

Credit: one

Prerequisite: Programming, Computer Science, or equivalent skill

Building on a foundation of programming skills, students will use object-oriented programming to develop applications for Windows, database, multimedia, games, mobile, and/or Web environments. Students will have the opportunity to explore and create applications related to the information technology and game design industries.

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

### BUSINESS COOPERATIVE INTERNSHIP (679920)

(Formerly Cooperative Office Education-COE)

Grades: 10, 11, 12

Credit: one

Corequisite: Student must be concurrently enrolled in a business course.

Business Cooperative Internship allows students to apply what they have learned in the classroom to the real world. The internship experience combines a business course with employment in a business-related field that reflects the student's current career interests. The program offers valuable work experience, enhances employment skills, and develops marketable skills. This course, taken in conjunction with another business course, will earn one to two units of credit. Students who successfully complete 396 hours of supervised on-the-job training in a related occupation will earn one credit. Students who successfully complete 720 hours of supervised on-the-job training in a related occupation will earn two credits.

### BUSINESS LAW (613232)

Grades: 9, 10, 11, 12

Credit: one-half

Business Law provides students with the basic knowledge to become a better informed citizen, employee, and consumer. The course offers students the opportunities to study the nature and function of our legal system, courts, and procedures. Topics include contracts, sales agreements, torts, constitutional law, criminal law, and family law. Students focus on consumer rights and responsibilities, examine legal aspects of employment, research careers in law, and discuss the impact of laws on travelers and those living abroad. Enriched with student projects, debates, mock trials, field trips, guest speakers, and Internet activities, the course helps students understand the laws affecting businesses and consumers.

**Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal.**

**BUSINESS MANAGEMENT (613632)****Grades: 9, 10, 11, 12****Credit: one-half**

Students study basic management concepts and leadership styles as they explore business ownership, planning, economics, international business, and human relations issues such as employee motivation and conflict resolution. Through engaging software simulations, students learn to utilize efficiently and effectively the basic management functions of planning, organizing, staffing, directing, and controlling, and their impact on human and capital resources. Upon completion of this course, students will develop a business plan for a real or simulated business.

**Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal.**

**DESIGN, MULTIMEDIA, AND WEB TECHNOLOGIES (663000)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Information Systems (661200) or equivalent skill**

This product-oriented course introduces the student to multimedia presentations, desktop publications, and web page creation. Hands-on activities are used as students develop skills, master techniques, and prepare products for a client-based environment. Students learn to create professional slideshow presentations using animation, sound, and videos. Students also create brochures, flyers, business advertisements, and many other useful documents using Adobe products. The course also introduces students to document construction for publishing on the World Wide Web using authoring software. Units of instruction include design and layout, typeface selection, electronic scanners and scanned images, image editing, digital cameras and images, and video capturing. Internet research and copyright laws are emphasized. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

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

**ECONOMICS AND PERSONAL FINANCE (612000)****Grades: 9, 10, 11, 12****Credit: one**

Instruction in economics and personal finance prepares students to function effectively as consumers, savers, investors, entrepreneurs, and active citizens. Students learn how economics and markets operate and how the United States' economy is interconnected with the global economy. On a personal level, students learn that their own human capital (knowledge and skills) is their most valuable resource. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. Beginning with students entering ninth grade in fall 2011, one standard unit of credit in Economics and Personal Finance is required for graduation.

**Industry certification may be available as part of this course. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

**IB BUSINESS AND MANAGEMENT SL (613508)****Grades: 10, 11, 12****Credit: one/weighted +1.0**

The IB Business and Management SL course is designed to provide a broad introduction to the basic principles and practices of businesses and other organizations, both profit-making and nonprofit in nature. Fundamental principles and skills are studied in local, national and international context, thus affording the opportunity to reflect the differences in perspectives and cultures. Instruction includes units in introduction to business, marketing, finance, accounting, and human resource management. For students attending base schools that have the IB program, this course may serve as an elective ("Sixth Subject") in the IB Diploma program or may be taken independently for an IB certificate. These IB students are required to take the IB exam, and the course carries a weighted credit of 1.0 on the student's GPA. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

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

**IB BUSINESS AND MANAGEMENT HL (613509)****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: IB Business and Management SL (613508)**

This course is the second segment of a two-year series. It will continue and expand the curriculum of the first-year course and will require a written research project. The class is designed to promote the importance of exploring business issues from different cultural perspectives, to encourage a holistic view of the world of business, to enable the student to develop the capacity to think critically, and to enhance the student's ability to make decisions. Through the assessment of data from a variety of sources, students will identify social factors, cultural factors, and ethical considerations in the actions of organizations as well as examine the impact of the actions of organizations on the internal and external environment. For students attending base schools that have the IB program, this course may serve as an elective ("Sixth Subject") in the IB Diploma program or may be taken independently for an IB certificate. These IB students are required to take the IB exam, and the course carries a weighted credit of 1.0 on the student's GPA. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

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

**INFORMATION SYSTEMS (661200)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Computer Solutions Digital Input Technologies or equivalent skill**

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

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

**INFORMATION TECHNOLOGY FUNDAMENTALS (667000)**  
**Grades: 9, 10, 11, 12** **Credit: one**

Information Technology (IT) Fundamentals introduces the essential skills needed for students to pursue specialized programs leading to technical and professional careers and certifications in the IT industry. Hands-on, engaging activities provide students with the opportunity to investigate career opportunities in four major IT areas: Information Services and Support, Network Systems, Programming and Software Development, and Interactive Media.

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

**PRINCIPLES OF BUSINESS (611500)**  
**Grades: 9, 10** **Credit: one**

Students study the American business system as part of our total economic environment and become skillful in selecting and using goods and services to manage their personal and business affairs. Topics covered are banking, insurance, financial management, credit, savings and investments, consumer decisions, labor and management relations, and usage of computers in business and industry. This course is an excellent introduction course for IB Business and Management.

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

**PROGRAMMING (664000)**  
**Grades: 9, 10, 11, 12** **Credit: one**  
**Prerequisite: Computer related course or equivalent skills**

Students explore computer concepts, apply logic procedures, and implement programming procedures with one or more languages, such as Visual Basic.Net. Graphical User Interfaces may be used as students design and develop interactive multimedia applications. In addition, HTML or JavaScript may be employed to create Web pages. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

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

**WEB PAGE DEVELOPMENT (663100)**  
**Grades: 9, 10, 11, 12** **Credit: one**  
**Prerequisite: Information Systems (661200) or equivalent skill**

This course provides students the opportunity to study, develop and design sophisticated web pages in a client-based business environment. Basics of HTML, DHTML, scripting, and the use of authoring software are covered. Students are also provided instruction in preparing and editing Web page images, applying advanced design techniques and features, creating vector animations, and managing web site directory structures. Skill development will be achieved through hands-on activities that help students to design web pages for various audiences and uses. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

**Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing**

**this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

**CISCO 1 PART A (854232)**  
**Grades: 10, 11, 12** **Credit: one-half**  
**Prerequisite: Computer related course or equivalent skill**  
**Corequisite: Cisco 1 Part B**  
**(Chantilly Academy - transportation may be provided)**

This is part A of a full year course. Part A is taken in the fall semester. Students also register and take Cisco 1 part B in the spring semester. This course teaches students the skills needed to obtain entry-level home network installer jobs. It also helps students develop some of the skills needed to become network technicians, computer technicians, cable installers, and help-desk technicians. It provides a hands-on introduction to networking and the Internet, using tools and hardware commonly found in home and small business environments. Labs include PC installation, Internet connectivity, wireless connectivity, file and print sharing, and the installation of game consoles, scanners, and cameras. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. For more information, visit the academy web site.

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

**CISCO 1 PART B (854332)**  
**Grades: 10, 11, 12** **Credit: one-half**  
**Prerequisite: Cisco 1 Part A**  
**Corequisite: Cisco 1 Part A**  
**(Chantilly Academy - transportation may be provided)**

This is part B of a full year course. Part B is taken in the spring semester. Students also register and take Cisco 1 part A in the fall semester. This course prepares students for jobs as network technicians and helps them develop additional skills required for computer technicians and help desk technicians. It provides a basic overview of routing and remote access, addressing, and security. It also familiarizes students with servers that provide e-mail services, Web space, and authenticated access. Students learn about the soft skills required for help desk and customer service positions, and the final chapter helps them prepare for the CCENT certification exam. Network monitoring and basic troubleshooting skills are taught in context. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. For more information, visit the academy web site.

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

**CISCO 2 PART A (854432)****Grades: 11, 12****Credit: one-half****Prerequisite: Cisco 1 Part A and B****Corequisite: Cisco 2 Part B****(Chantilly Academy - transportation may be provided)**

This is part A of a full year course. Part A is taken in the fall semester. Students also register and take Cisco 2 part B in the spring semester. This course familiarizes students with the equipment applications and protocols installed in enterprise networks, with a focus on switched networks, IP Telephony requirements, and security. It also introduces advanced routing protocols such as Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF) Protocol. Hands-on exercises, including configuration, installation, and troubleshooting, reinforce student learning. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. For more information, visit the academy web site.

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

**CISCO 2 PART B (854532)****Grades: 11, 12****Credit: one-half****Prerequisite: Cisco 1 Part A and B****Corequisite: Cisco 2 Part A****(Chantilly Academy - transportation may be provided)**

This is part B of a full year course. Part B is taken in the spring semester. Students also register and take Cisco 2 part A in the fall semester. This course is designed for students interested in pursuing a career in the computer industry. Students will install, configure, upgrade, diagnose, troubleshoot and perform preventive maintenance on computer motherboards, processors, and memory chips. Other areas of study will include basic networking, software operation of Windows and DOS, memory management, and preventive maintenance. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. For more information, visit the academy web site.

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

**COMPUTER SYSTEMS TECHNOLOGY - A+ LEVEL 1 (862232)****Grades: 10, 11, 12****Credit: one****Prerequisite: Computer related course or equivalent skill****Corequisite: Computer Systems Technology - A+ Level 2****(Chantilly, Edison and Marshall Academies - transportation may be provided)**

Students also register for Computer Systems Technology - A+ Level 2 in the spring. Students enter the world of computer technology and gain practical experience in assembling a computer system, installing an operating system, troubleshooting computers and peripherals, and using system tools and diagnostic software. They develop skills in computer networking and resource sharing. In addition, students explore the relationships between internal and external computer components. Emphasis is placed on customer service skills and career exploration. Upon successful completion of the course, students may qualify to take the A+ certification exam. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. For more information, visit the academy web site.

**Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and**

**Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit.**

**COMPUTER SYSTEMS TECHNOLOGY - A+ LEVEL 2 (862332)****Grades: 10, 11, 12****Credit: one****Prerequisite: Computer related course or equivalent skill****Corequisite: Computer Systems Technology - A+ Level 1****(Chantilly, Edison and Marshall Academies - transportation may be provided)**

Students also register for Computer Systems Technology - A+ Level 1 in the fall. Building on the foundation of Computer Systems Technology - A+ Level 1, this advanced course provides students with training in procedures for optimizing and troubleshooting concepts for computer systems and subsystems. Students explore wireless technologies (e.g., Bluetooth, Wi-Fi) and create and configure a network. Emphasis is placed on technical proficiency, skill-building, and workplace readiness. The course prepares students for postsecondary education and training, and a successful career in information technology. Upon successful completion of the course, students may qualify to take the A+ Certification exam. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. For more information, visit the academy web sites.

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

**NETWORK ADMINISTRATION 1 (665032)****Grades: 10, 11, 12****Credit: one****Prerequisite: Computer related course, Algebra 1, or equivalent skill****(Chantilly, Edison and Marshall Academies - transportation may be provided)**

Network Administration is a comprehensive, hands-on computer course in which students are taught basic networking skills using Windows and Microsoft Server. Topics covered throughout the year include network concepts, installation, configuration, management, and troubleshooting. Network Administration is designed to teach many aspects of computer support and network administration. Students learn networking concepts, from usage to components, and set up peer-to-peer network systems and client server networks. Students install and configure network cards and connect them to networks. Students learn how to install the operating systems, set up and manage accounts, load software, and set up and implement security plans. Upon successful completion of Network Administration, students may elect to obtain industry-recognized professional certification by taking the Microsoft Certified Professional (MCP) exams leading to Microsoft Certified Systems Administrator (MCSA), Microsoft Certified Desktop Support Technician (MCDST) and Microsoft Certified Systems Engineer (MCSE). The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. For more information, visit the academy web site.

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

**NETWORK ADMINISTRATION 2 (665132)****Grades: 10, 11****Credit: one****Prerequisite: Network Administration 1 (Chantilly, Edison and Marshall Academies - transportation may be provided)**

Network Administration 2 is designed to continue teaching aspects of network administration-focusing on management and support of network users and systems. Time is spent discussing responsibilities of computer professionals, training end users, evaluating new technology, developing system policies, troubleshooting workstations, managing network services and protocols, and effectively using e-business communications. Students learn communications protocols, troubleshooting techniques for systems and client server networks, web site management and other advanced networking topics. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. For more information, visit the academy web site.

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

**ORACLE 1 (666032)****Grades: 10, 11, 12****Credit: one****Prerequisite: Computer related course or equivalent skill (Chantilly and Edison Academy - transportation may be provided)**

This is an advanced information technology class that provides complete, hands-on computer training in data modeling and database application software with an emphasis on Oracle 9i. An example of an Oracle web site would be Amazon.com. Students taking this course will be prepared to take Oracle's Introduction to SQL (Structured Query Language) programming exam. Preparation for careers is a major component of this class. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. For more information, visit the academy web site.

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

**ORACLE 2 (666232)****Grades: 11, 12****Credit: one****Prerequisite: Oracle 1 (Chantilly and Edison Academies - transportation may be provided)**

This advanced information technology class offers supervised self-study opportunities for students interested in learning PL/SQL. Students who have previously passed the Oracle SQL exam and pass the PL/SQL exam will earn the Oracle Certified Associate (OCA) designation. The cooperative education (Business Cooperative Internship--679920) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. For more information, visit the academy web site.

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

**ENGLISH****ENGLISH 9 (113000)****Grades: 9****Credit: one****Prerequisite: English 8**

Students read and analyze a variety of literary and nonfiction texts, exploring the characteristics of different forms and the techniques authors use to achieve their intended purpose. Language study extends students' vocabulary through learning about connotations, denotations, word origins, and structures. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments. Through narrative, expository, and persuasive writings, students build on their understanding of writing as a process of prewriting, drafting, revising, and publishing. In the research process, students find, evaluate, and select appropriate sources to access information to create a research product. They also develop communication skills through listening to and practicing oral presentations. (This is a Standards of Learning aligned course, which is tested in 11th grade.)

**ENGLISH 9 HONORS (113036)****Grades: 9****Credit: one/weighted +.5****Prerequisite: English 8**

English 9 Honors deepens and advances the curriculum of English 9. Students read and analyze a variety of literary and nonfiction texts, exploring the characteristics of different forms and the techniques authors use to achieve their intended purpose. Language study extends students' vocabulary through learning about connotations, denotations, word origins, and structures. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments. Through narrative, expository, and persuasive writings, students build on their understanding of writing as a process of prewriting, drafting, revising, and publishing. In the research process, students find, evaluate, and select appropriate sources to access information to create a research product. They also develop communication skills through listening to and practicing oral presentations. (This is a Standards of Learning aligned course, which is tested in 11th grade.)

**TRANSITIONAL ENGLISH 9 (113095)****Grades: 9****Credit: one**

Transitional English 9 is intended to be taken concurrently with English for Speakers of other Languages (ESOL) Level 4 to serve as a transition from ESOL to the mainstream English program. Students read and analyze a variety of literary and nonfiction texts, exploring the characteristics of different forms and the techniques authors use to achieve their intended purpose. Language study extends students' vocabulary through learning about connotations, denotations, word origins, and structures. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments. Through narrative, expository, and persuasive writings, students build on their understanding of writing as a process of prewriting, drafting, revising, and publishing. In the research process, students find, evaluate, and select appropriate sources to access information to create a research product. They also develop communication skills through listening to and practicing oral presentations. (This is a Standards of Learning aligned course, which is tested in 11th grade.)

**ENGLISH 10 (114000)****Grades: 10****Credit: one****Prerequisite: English 9**

Students read and analyze a variety of literary and nonfiction texts, comparing and contrasting the techniques authors use in literature of different cultures and eras. Language study continues to extend students' vocabulary through learning about connotations, denotations, word origins, and structures. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments. With an emphasis on expository and analytic writing, students expand their understanding of writing as a process and develop their skills in revising to address a specific audience and purpose. In the research process, students collect, evaluate, organize, and present accurate and valid information to create a research product. They also improve communication and collaboration skills through small and large group discussions and presentations. (This is a Standards of Learning aligned course, which is tested in 11th grade.)

**ENGLISH 10 HONORS (114036)****Grades: 10****Credit: one/weighted +.5****Prerequisite: English 9**

English 10 Honors deepens and advances the curriculum of English 10. Students read and analyze a variety of literary and nonfiction texts, comparing and contrasting the techniques authors use in literature of different cultures and eras. Language study continues to extend students' vocabulary through learning about connotations, denotations, word origins, and structures. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments. With an emphasis on expository and analytic writing, students expand their understanding of writing as a process and develop their skills in revising to address a specific audience and purpose. In the research process, students collect, evaluate, organize, and present accurate and valid information to create a research product. They also improve communication and collaboration skills through small and large group discussions and presentations. (This is a Standards of Learning aligned course, which is tested in 11th grade.)

**ENGLISH 11 (115000)****Grades: 11****Credit: one****Prerequisite: English 10**

Students read and analyze a variety of literary and nonfiction texts, comparing themes of various works and analyzing expository materials to draw conclusions. Language study continues through the application of rules for sentence formation, usage, spelling, and mechanics. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments. With an emphasis on persuasive writing, students apply their skills and adapt content, vocabulary, voice, and tone to a specific audience and purpose. In the research process, students analyze, evaluate, synthesize, and organize information from a variety of sources to produce a research product. They also refine their oral communication skills through gathering and organizing evidence to support a position in informative and persuasive presentations.

**ENGLISH 11 HONORS (115036)****Grades: 11****Credit: one/weighted****+.5**

English 11 Honors deepens and advances the curriculum of English 11. Students read and analyze a variety of literary and nonfiction texts, comparing themes of various works and analyzing expository materials to draw conclusions. Language study continues through the application of rules for sentence formation, usage, spelling, and mechanics. Students apply their understanding of grammar, capitalization, punctuation, spelling, sentence structure, and paragraphing to varied and frequent writing assignments. With an emphasis on persuasive writing, students apply their skills and adapt content, vocabulary, voice, and tone to a specific audience and purpose. In the research process, students analyze, evaluate, synthesize, and organize information from a variety of sources to produce a research product. They also refine their oral communication skills through gathering and organizing evidence to support a position in informative and persuasive presentations.

**Students are required to take the Standards of Learning Reading and Writing Test.**

**IB ENGLISH LITERATURE I HL (115009)****Grades: 11****Credit: one/weighted +1.0****Prerequisite: English 10**

This is the first year of a two-year intensive college-level study of language and literature in English. Over these two years students develop their analytical and creative powers of expression, both in oral and written communication. They practice the skills involved in writing and speaking in a variety of styles and situations, using English as a means of effective communication and as a key to the study of other disciplines. Students are introduced not only to major classical works of literature, but also to a range of contemporary writing. They also study different genres, styles, and contexts through the comparative study of works from various cultures. IB English Literature I HL together with IB English Literature II HL prepares students for the higher level exam.

**ENGLISH 12 (116000)****Grades: 12****Credit: one****Prerequisite: English 11**

Students read and analyze a variety of literary texts, recognizing major forms and their stylistic elements. Using nonfiction texts, students will analyze and synthesize information to solve problems. Language study expands students' general and specialized vocabulary through speaking, listening, reading, and viewing. Writing includes the production of informational, expository, and persuasive/argumentative papers, logically organized demonstrating knowledgeable judgments, and effective conclusions. They also apply their oral communication skills to craft formal oral presentations and their listening skills to analyze the relationships among purpose, audience and content of presentations.

**ENGLISH 12 Dual Enrollment (1160DE)****Grades: 12****Credit: one****Prerequisite: English 11**

English 12 Dual Enrollment is a rigorous course which allows students to earn college credit while completing English 12 requirements. This year long/two semester course introduces students to critical thinking and the fundamentals of academic writing. Through the writing process, students refine topics; develop and support ideas; investigate, evaluate, and incorporate appropriate resources; edit for effective style and usage; and determine appropriate approaches for a variety of contexts, audiences, and purposes. The course requires students to locate, evaluate, integrate, and document sources. Students develop these competencies through the examination of a range of texts about the human experience. The students are dually enrolled in South Lakes High School and Northern Virginia Community College. Successful completion of the course earns the student high school English 12 credit and two semesters of college English at NVCC (English 111 and 112). Students must earn a passing grade in the course at the end of the first semester in order to remain in the class. NVCC tuition costs apply to this course (approx \$100).

**IB ENGLISH LITERATURE II HL (116009)****Grades: 12****Credit: one/weighted +1.0****Prerequisite: IB English 1**

This is the second year of a two-year course in which students continue a rigorous study of language and literature in English. They demonstrate an increasing proficiency in creative and analytical thinking skills through reading, writing and speaking. They develop an understanding of the techniques involved in literary study and criticism, and engage in a detailed and critical examination of written works from world literature. Students develop an appreciation for, and lifelong interest in literature and language. Students are required to take the higher level English Literature IB exam. Students may earn college credit if a qualifying score is achieved.

**CREATIVE WRITING 1 (117100)****Grades: 9, 10, 11, 12****Credit: one**

This course provides students an opportunity for additional writing instruction beyond the standard English program. Experimentation with many forms of writing is encouraged, with an emphasis on poetry, short stories, plays, and all forms of descriptive writing. Students continue to expand and refine their ability to write through analyzing and evaluating their own writing and that of other students. Students may also participate in the layout, design, and overall production of a high school literary magazine.

**CREATIVE WRITING 2 (117200)****Grades: 10, 11, 12****Credit: one****Prerequisite: Creative Writing 1**

This course provides students an opportunity for further exploration of creative writing. Students continue to experiment with many forms of writing, with an emphasis on poetry, short stories, plays, and all forms of descriptive writing. Students hone their writing skills by attempting more advanced work while also working collaboratively with other students on revision and critique. Students may also participate in the layout, design, and overall production of a high school literary magazine.

**DEVELOPING LITERACIES (118060)****Grades: 9****Credit: one**

Developing Literacies provides direct instruction of content area reading skills necessary to understand the content of mathematics, science, social studies, and English. The course focuses on the reading skills necessary for successful completion of the SOL tests given in the four core areas.

**EXPANDING LITERACIES 1 (151500)****Grades: 10, 11****Credit: one**

Expanding Literacies provides direct intervention of reading skills and English content necessary to pass the EOC English: Reading and/or the EOC English: Writing SOL tests, which students take in eleventh grade. Verified credit on both tests is required in order to earn a Standard Diploma. This course counts as a sequential elective when taken after Developing Literacies.

**FILM STUDY (144632)****Grades: 9, 10, 11, 12****Credit: one-half**

This course involves the study of classic and award-winning films. Students critique both the artistic and technical merits of the films. They study the development of theme, plot, characterization, and setting in each production. They learn the vocabulary associated with film and use this vocabulary when discussing or writing about films. Students may create their own short films.

**JOURNALISM 1 (120000)****Grades: 9, 10, 11, 12****Credit: one**

In Journalism 1 students learn the history and language of journalism; develop communication skills in writing, designing and editing for a variety of media; understand news and the process of publication; and become more critical readers and viewers of mass media.

**JOURNALISM 2 (121000)****Grades: 10, 11, 12****Credit: one****Prerequisite: Journalism 1**

In Journalism 2 students learn and apply techniques of layout, design and desktop publishing. Students develop a more sophisticated level of journalistic writing and participate in the operation and production of the high school newspaper and/or student produced webpage. This course requires some after school time.

**JOURNALISM 3 (121100)****Grades: 11, 12****Credit: one****Prerequisite: Journalism 2**

In addition to enhancing their skills as reporters, students in Journalism 3 learn the role of editorial leadership, develop a personal sense of professionalism, understand the role of the newspaper in society, and become productive members of the newspaper and/or student produced webpage staff. Students also learn business and circulation management. This course requires some after school time.

**PHOTOJOURNALISM 1 (121500)****Grades: 10, 11, 12****Credit: one****Prerequisite: Journalism 1 or instructor permission**

In Photojournalism 1, students learn the principles of interviewing, copywriting, photography, layout, and design. Students will use publishing software to create pages for the school's yearbook. This course requires some after-school time.

**PHOTOJOURNALISM 2 (121600)****Grades: 11, 12****Credit: one****Prerequisite: Photojournalism 1**

In Photojournalism 2, students develop their copywriting skills and advance their photography and design skills as they create pages for the school's yearbook. They may become section editors. This course requires some after-school time.

**PHOTOJOURNALISM 3 (121700)****Grades: 11, 12****Credit: one****Prerequisite: Photojournalism 2**

In Photojournalism 3, students refine their copywriting skills and advance their computer and photography skills, develop individual style, and may assume leadership roles as members of the yearbook staff's editorial board. This course requires some after-school time.

**SPEECH COMMUNICATION (130032)****Grades: 9, 10, 11, 12****Credit: one-half**

Speech Communication is designed to introduce students to the basics of speech communication. Students participate in a variety of speech activities, which help them develop self-confidence and poise through preparation, performance, and evaluation. Students participate in interpersonal, group, and public speaking activities.

**BROADCAST JOURNALISM (122026)****Grades: 10, 11, 12****Credit: one****Prerequisite: Journalism 1****(Offered at Fairfax Academy only - transportation may be provided)**

In this course, students will learn and practice the language and processes of broadcast journalism and reporting. They will develop an understanding of the role and responsibilities of broadcast journalists.

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

## ENGLISH FOR SPEAKERS OF OTHER LANGUAGES

**ESOL LEVEL 2 BEGINNING (571014, 571015, 571016)****Grades: 9, 10, 11****Credit: one**

Students engage in listening, speaking, reading and writing English through an integrated language arts and content curriculum. The class is aligned with English 9 language arts standards. Emphasis is placed on building background knowledge and developing academic language proficiency in social studies, science and language arts. Students take three periods of ESOL classes: two content-based and one literature-based. Students enrolled in this course also take 571015 and 571016. These courses earn elective credits and may be repeated for additional elective credits.

**ESOL LEVEL 3 DEVELOPING (572091, 572092)****Grades: 9, 10, 11****Credit: one**

Students continue to develop listening, speaking, reading, and writing skills. They read more challenging fiction and non-fiction texts to increase academic vocabulary. Emphasis is placed on developing reading, writing, and learning strategies to support academic content classes. The class is aligned with English 9 language arts standards. Students enrolled in 572091 also take 572092. 572091 is a literature-based class and 572092 is a content-based class. A total of two credits from 572091 and 572092 may be used as world languages credits. This course may be repeated for elective credit.

**ESOL LEVEL 4 EXPANDING (573000)****Grades: 9, 10, 11****Credit: one**

This course is taken concurrently with Transitional English 9 or English 9. ESOL and English teachers work together to provide a comprehensive program based on the English 9 POS. Students read a variety of literature and relate life situations to literary themes. They continue to develop their reading and writing skills and study the structure of the English language through an integrated language arts curriculum. Students refine their listening and speaking skills through class discussions and oral presentations. This course follows grade 9 English language arts Standards of Learning and FCPS POS. This course may be repeated for elective credit.

**INDIVIDUALIZED MATH (312190)****Grades: 9, 10, 11****Credit: one**

The purpose of this course is to provide the foundational skills necessary to enter Algebra 1 for ESOL students who are performing below the fifth grade level in mathematics. Students examine algebra- and geometry-preparatory concepts and skills; strategies for collecting, analyzing, and interpreting data; and number concepts and skills emphasizing proportional reasoning. Problem solving, communication, concept representation, and connections among mathematical ideas are presented in a hands-on learning environment. Students may need up to two years to complete the course, but should move to the next course as soon as their mathematics skills warrant. This course emphasizes language objectives in addition to mathematics objectives and does not meet the mathematics graduation requirements; students earn elective credit.

**CONCEPTS SCIENCE (462260)****Grades: 9, 10, 11****Credit: one**

This course, taught by science or ESOL teachers, is designed for ESOL Level 1 and 2 students. The course provides the students with background information, essential vocabulary, and the basic concepts and skills in preparation for taking biology. This course can be offered on a semester basis for a half credit. Concepts Science is an elective and does not satisfy the state science graduation requirements. This course can be repeated for elective credit.

**WORLD CONCEPTS (299660)****Grades: 9, 10, 11****Credit: one**

This course provides students with background information, key vocabulary, and basic concepts in preparation for taking World History and Geography 1. Course content includes map skills and geographic themes. This course is designed for ESOL level 1 and 2 students. This course may be repeated for credit. World Concepts is an elective and does not satisfy the state Social Studies requirements for graduation

**FAMILY & CONSUMER SCIENCES**

**\*Not all of the courses in this area can be offered at SLHS.**

**Students wishing to enroll in those courses may need to travel to another school in the area.**

**\*CHILD DEVELOPMENT AND PARENTING (823200)****Grades: 10, 11, 12****Credit: one**

This course is designed to focus on assessing the impact of the parenting role in society; taking responsibility for personal growth within the parenting role; preparing for a healthy, emotional, and physical beginning for parent and child; meeting developmental needs of children and adolescents; building positive parent-child relationships; using positive guidance to promote self-discipline, self-esteem, and socially responsible behavior; obtaining parenting information, support, and assistance; and, planning ways that families and society can share in nurturing children and adolescents. The basic skills of mathematics, science, and communications will be highlighted when appropriate in the content.

**Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma.**

**CULINARY ARTS 1 (827524)****Grades: 11, 12  
South Lakes HS****Credit: two**

This course is dedicated to providing students with a working knowledge of classical culinary techniques. Through lecture, hands-on work and projects, the students will learn the skills needed for a career in the food service industry. Training in sanitation, hot food production, meat identification and fabrication, pantry, breakfast cookery, purchasing, and basic culinary skills is offered. Curriculum also includes culinary mathematics, field trips, and competitive events.

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

**CULINARY ARTS 2 (827624)****Grades: 11, 12  
South Lakes HS****Credit: two**

This course builds on the skills learned in Culinary Arts 1. Further advanced instruction in table service, baking, pastries, and management techniques is emphasized. Students create a plan for establishing a restaurant that includes menu selection and preparation, facilities design, and management components. During the second semester, selected students may participate in internship activities as an option in cooperation with the local business community. Students completing Culinary Arts 1 (827527) and Culinary Arts 2 (827627) with a grade of "B" or better may be eligible to articulate credit at Stratford University, Johnson and Wales University, or The Art Institute of Washington.

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

**EARLY CHILDHOOD CAREERS 1 (828527)****Non-academy****Grades: 10, 11, 12****Credit: two**

**(Sites have cooperative education experiences for students through the FCPS Head Start Program; transportation may be provided for high school students to Chantilly and West Potomac Academies.)**

This course is designed to combine the study of child growth and development with participation in the planning and operation of a preschool laboratory for three- and four-year-olds. Opportunity is provided for students to prepare for careers involving children and for the responsibility of making daily decisions that affect children. Career opportunities that involve working with children are explored, such as social work, education, psychology, child-care, and medicine. Students enrolling in this course may be required to complete an application and/or have approval of the instructor.

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

**EARLY CHILDHOOD CAREERS 2 (828627)****Grades: 11, 12****Credit: two****Prerequisite: Early Childhood Careers 1 (828527)**

**(Sites have cooperative education experiences for students through the FCPS Head Start Program; transportation may be provided for high school students to Chantilly and West Potomac Academies.)**

This course is a double-period course with classroom instruction and child development/preschool laboratory experience. Class instruction expands on the skills of Early Childhood Careers 1 and includes development of employment strategies. Individual projects and training plans are required for school laboratory work experiences. Students enrolling in this course may be required to complete an application and/or have approval of the instructor.

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

**FASHION DESIGN 1 (828027)****Grades: 11, 12****Credit: two****Prerequisite: Art 1 (912000), Fashion Marketing (814000), or**

**Introduction To Interior And Fashion Design (825432). A performance review may be required.**

**(Fairfax and West Potomac Academies - transportation may be provided)**

The Fashion Design 1 students will begin to explore an in-depth creative process and develop technical and presentation skills in the field of fashion design. The program will emphasize design concepts, sketching, draping, pattern making, and garment construction. These skills will enable the student to design and construct a project from creative conception to completion. (Students interested in this course should also see Fashion Marketing 1 under Marketing.) For more information, visit the academy web site.

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

**FASHION DESIGN 2 (828127)****Grades: 11, 12****Credit: two**

**Prerequisite: Fashion Design 1 (848027) or Portfolio Review (examples of student work) and/or a performance review may be required. (Fairfax and West Potomac Academies - transportation may be provided)**

The Fashion Design 2 curriculum will continue to foster and explore the creative process and develop advanced technical skills in the field of fashion design. The student will build on existing skills in the areas of design concepts, sketching, pattern making, and garment construction. These skills will enable the student to develop a fashion portfolio and to execute a fashion line from conception to completion. Students will begin to develop a level of professionalism that is standard in the industry. (Students interested in this course should also see Fashion Marketing 1 under Marketing.) For more information, visit the academy web site.

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

**\*GOURMET AND INTERNATIONAL FOODS (825900)****Grades: 10, 11, 12****Credit: one**

This course allows students to explore food safety and sanitation, food preparation and presentation of foods, global cuisines, and a variety of careers related to the hospitality, tourism and recreation industry. Skills in mathematics, science, and communications will be reinforced throughout the curriculum. In addition, emerging technologies used in related industries will be incorporated. Students completing Gourmet and International Foods with a "B" or better may be eligible to articulate up to four credits at Stratford University.

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

**\*LIFE PLANNING (822700)****Grades: 9, 10, 11, 12****Credit: one**

This course is designed to focus on managing resources to achieve personal goals; making informed consumer choices; creating a living environment that supports the well-being of individuals; evaluating types of housing; maintaining a living environment that supports the well-being of self and family; living in a global environment; making decisions related to clothing; maintaining clothing for self and others; planning food choices that meet the health needs of individuals and families; and, preparing and serving nutritious foods. In addition, focus is placed on developing a life-management plan; caring for self and others to ensure wellness; building and maintaining constructive interpersonal relationships; building and maintaining strong, functional families; developing strategies for lifelong career planning, coordinating personal and career responsibilities; and, establishing a plan for using resources. The basic skills of mathematics, science, and communications will be highlighted when appropriate in the content.

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

**\*RELATIONSHIPS (822500)****Grades: 10, 11, 12****Credit: one**

This course is designed to focus on enhancing personal development of self and others throughout the life span; enhancing self-esteem of self and others; managing stressful situations; formulating a plan to achieve career goals; forming healthy, caring relationships with family members; forming healthy, caring relationships with peers; managing conflict; evaluating the importance of responsible parenting for individuals, families, and society; analyzing the significance of the family; nurturing human development in the family throughout the life span; analyzing factors related to forming a family; analyzing factors that build and maintain healthy family relationships; developing communication patterns that enhance family relationships; dealing effectively with family stress, conflicts, and crises;

managing work and family roles and responsibilities; and, analyzing social forces that influence families across the life span. The basic skills of mathematics, science, and communications will be highlighted when appropriate in the content.

**Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma.**

## FINE ARTS

### DANCE

**DANCE 1 (931100)****Grades: 9, 10, 11, 12****Credit: one**

Students will develop skills in basic movement fundamentals, placement and alignment, standard floor positions, and beginning dance technique for selected dance forms (modern, improvisation, jazz, ballet). Students will also develop dance vocabulary, study dance history, gain competence in critiquing skills, learn improvisational skills, and develop further performance skills. Students must meet both the school day and after-school participation requirements to receive credit for the course. This course may be used to satisfy the graduation requirement for a credit in fine arts.

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

**DANCE 2/MODERN/JAZZ DANCE (931300)****Grades: 10, 11, 12****Credit: one****Prerequisite: Dance 1**

Students will focus on intensive work and proficiency in alignment, selected techniques, flexibility, and strength. Students will broaden knowledge of dance history, anatomy, theory, vocabulary, criticism, and composition. Students will continue to develop choreographic and performance skills including the use of improvisation. Students must meet both the school day and after-school participation requirements to receive credit for the course. This course may be used to satisfy the graduation requirement for a credit in fine arts.

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

**DANCE 3 (931500)****Grades: 11, 12****Credit: one****Prerequisite: DANCE 2**

Students will focus on more intensive work and proficiency in alignment, selected techniques, flexibility, and strength. Students will continue to broaden knowledge of dance history, anatomy, theory, vocabulary, criticism, and composition. Students will continue to develop choreographic and performance skills including the use of improvisation. Students must meet both the school day and after-school participation requirements to receive credit for the course. This course may be used to satisfy the graduation requirement for a credit in fine arts.

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

## FINE ARTS MUSIC

### INTERMEDIATE BAND (923315)

**\*For students not participating in Marching Band.**

### ADVANCED BAND (923415)

**\*For students who participate in Marching Band.**

#### *South Lakes Symphonic Band*

Level 1

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: Successful audition

Students in this course form the representative performing band for the school. Emphasis is placed on the sequential development of advanced technical skills and on the study of related literature. Based on successful completion of sequential concepts for each level, students will continue as specified in course level. Marching band techniques, rehearsals, and performances are included in this course. 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 (923416)

#### *South Lakes Wind Ensemble*

Level 2

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: Successful audition

Students in this course form the representative performing band for the school. Emphasis is placed on the sequential development of advanced technical skills and on the study of related literature. Based on successful completion of sequential concepts for each level, students will continue as specified in course level. Marching band techniques, rehearsals, and performances are included in this course. 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.**

### JAZZ ENSEMBLE (924015)

Level 1

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: Successful audition or permission of the instructor

Corequisite: Schools may require membership in an intermediate or advanced band class, and may require participation in marching band.

The instrumental jazz ensemble curriculum emphasizes improvisation and styles of the jazz idiom. Content includes the study of blues scale patterns and harmonic progressions innate in jazz music. Content also includes the study of the appropriate jazz literature and rehearsal and performance techniques from the jazz idiom. Instrumentation of the jazz ensemble 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.**

### PERCUSSION ENSEMBLE (925015)

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: Successful audition

Corequisite: Schools may also require membership in an intermediate or advanced band, chorus or orchestra class. Participation in marching band may be required for wind and/or percussion students.

This course is designed to meet specific needs of percussionists. Content includes study of the 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.**

### ENSEMBLES - Flag Corp (925032)

Grades: 9, 10, 11, 12

Credit: one-half

Prerequisite: Successful audition

Corequisite: Schools may require membership in intermediate or advanced band, chorus or orchestra class.

This course is designed to meet specific needs and/or interests. Content includes study of the 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.**

### GUITAR 1 (924515)

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: none

Students learn the fundamentals of guitar. Guitar instruction emphasizes basic technique, reading, progressions, and music theory. Instructional literature is selected from classical and contemporary repertoire. Guest artists and field trips to performances and/or seminars may also be part of the curriculum.

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

### GUITAR 2 (924516)

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: Successful audition or successful completion of Guitar 1 or permission of the instructor

Students continue to develop skills on the guitar. Guitar instruction emphasizes intermediate technique, reading, progressions, and music theory. Instructional literature is selected from classical and contemporary repertoire. Guest artists and field trips to performances and/or seminars may also be part of the curriculum.

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

### GUITAR 3 (924517)

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: Successful audition or successful completion of Guitar 2 or permission of the instructor

Students continue to develop skills on the guitar. Guitar instruction emphasizes advanced technique, reading, progressions, and music theory. Instructional literature is selected from classical and contemporary repertoire. Guest artists and field trips to performances and/or seminars may also be part of the curriculum.

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

### INTERMEDIATE ORCHESTRA (923815)

Level 1

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: Attainment of beginning level skills and permission of instructor

The course offers instruction in the development of intermediate and advanced performing skills, including individual playing and ensemble techniques, and disciplinary skills needed for performance. 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 (923916)**

Level 2

Grades: 9, 10, 11, 12

Prerequisite: Successful audition

Credit: one

**STRING ENSEMBLE (925016)***Chamber Orchestra*

Level 3

Grades: 9, 10, 11, 12

Prerequisite: Successful audition

Corequisite: Schools may require membership in intermediate or advanced orchestra class.

Credit: one

This course is designed to meet specific needs and/or interests. Content includes study of the 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.**

**MIXED CHORUS (926015)**

Grades: 9, 10, 11, 12

Prerequisite: none

Credit: one

Students will participate in a chorus of mixed voices. Emphasis is placed upon correct vocal performance techniques and sight-singing through the study of appropriate choral literature. Based on successful completion of sequential concepts for each level, students will continue as specified in course level. 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 (926017)***Men's Camerata*

Grades: 9, 10, 11, 12

Prerequisite: none

Credit: one

Students will participate in a chorus of men's voices. Emphasis is placed upon correct vocal performance techniques and sight-singing through the study of appropriate choral literature. Based on successful completion of sequential concepts for each level, students will continue as specified in course level. 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 (926016)***Women's Chorale*

Grades: 9, 10, 11, 12

Prerequisite: none

Credit: one

Students will participate in a chorus of women's voices. Emphasis is placed upon correct vocal performance techniques and sight-singing through the study of appropriate choral literature. Based on successful completion of sequential concepts for each level, students will continue as specified in course level. 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 (928915)***Chamber Singers*

Level 1

Grades: 10, 11, 12

Prerequisite: Successful audition

Credit: one

Students are offered advanced choral experiences for mixed voices. Emphasis is placed on the development of musicianship and proficiency in ensemble performance. Course content includes a study of choral literature, vocal techniques, and sight-singing. Based on successful completion of sequential concepts for each level, students will continue as specified in course level. 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 (928916)***Bella Voce*

Grades: 10, 11, 12

Prerequisite: Successful audition

Credit: one

Students are offered advanced choral experiences for women's voices. Emphasis is placed on the development of musicianship and proficiency in ensemble performance. Course content includes a study of choral literature, vocal techniques, and sight-singing. Based on successful completion of sequential concepts for each level, students will continue as specified in course level. 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.**

**SHOW/SWING CHOIR (929615)**

Grades: 9, 10, 11, 12

Prerequisite: Successful audition

Corequisite: May require membership in another music class

Credit: one

Students are offered choral experiences in the appropriate genre. Emphasis is placed on the development of musicianship and proficiency in ensemble performance. Course content includes a study of appropriate literature, vocal techniques, sight-singing, and choreography. Students must meet both the school day and after-school participation requirements to receive credit for the course. **This class will meet during regular school hours.**

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

**IB MUSIC I (922508)**

Standard Level Year 1

Grades: 11

Credit: one/weighted +1.0

**Prerequisite: Students will audition for higher level ensembles within the music department if appropriate; recommendation of previous music teacher; completion of announced summer assignment.**

**Corequisite: Enrollment in advanced level performance ensemble course**

Students engage in advanced study of musical performance. An in-depth study of the historical perspective of music including Western society and other world societies is included. Students study cultures and traditions of various regions of the world and gain an insight into the political, social, and economic conditions that impact composers and performers. The study of traditional music in western society focuses on broad periods of time in history and includes specific style, form, and structure of vocal and instrumental music with analyses of specific works from those periods. This course also provides a solid foundation in the fundamentals of music including: intervals, pitch and rhythmic patterns, chords and chord progressions, and musical terms applicable to listening to and performance of musical literature. Students are required to be a member of an advanced level performance ensemble to participate in the course if the ensemble instrumentation is appropriate. Students are required to take the standard level exam at the end of year 2.

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

**IB MUSIC SL II (922608)**

Standard Level year 2

**IB MUSIC HL II (922609)**

Higher Level year 2

Grades: 12

Credit: one/weighted +1.0

**Prerequisite: Students will audition for higher level ensembles within the music department if appropriate; recommendation of previous music teacher; completion of announced summer assignment.**

**Corequisite: Enrollment in an advanced level performance ensemble course**

Students engage in advanced study of musical performance. An in-depth study of the historical perspective of music including Western society and other world societies is included. Students study cultures and traditions of various regions of the world and gain an insight into the political, social, and economic conditions that impact composers and performers. The study of traditional music in western society focuses on broad periods of time in history and includes specific style, form, and structure of vocal and instrumental music with analyses of specific works from those periods. This course also provides a solid foundation in the fundamentals of music including: intervals, pitch and rhythmic patterns, chords and chord progressions, and musical terms applicable to listening to and performance

of musical literature. Students are required to be a member of an advanced level performance ensemble to participate in the course if the ensemble instrumentation is appropriate. Students are required to take the higher level exam at the end of year 2.

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

#### **MUSIC AND COMPUTER TECHNOLOGY 1 (922527)**

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

**Prerequisite: Advanced Music Theory or a music theory background (Interview may be required with the instructor.)**

**(Selected sites or transportation may be provided to Fairfax or West Potomac Academies)**

Students will explore the use of computers and other electronic technologies in music including: Musical Instrumental Digital Interface (MIDI), analog and digital synthesis, sequencing, acoustics, sound processing, and electronic musical composition using the latest music industry software and the internet. For more information, visit the academy web site.

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

#### **MUSIC AND COMPUTER TECHNOLOGY 2 (922627)**

**Grades: 12** **Credit: two**

**Prerequisite: Music and Computer Technology 1**

**(Selected site or transportation may be provided to Fairfax or West Potomac Academies)**

Students will expand on the use of computers and other electronic technologies developed in Music and Computer Technology I including: Musical Instrumental Digital Interface (MIDI), analog and digital synthesis, sequencing, acoustics, sound processing, and electronic musical composition using the latest music industry software and the internet. For more information, visit the academy web site.

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

#### **PROFESSIONAL MUSICAL THEATRE AND ACTOR'S STUDIO 1 (143027)**

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

**Prerequisite: One of the following: Theatre Arts, Chorus, or Dance.**

**Audition is also required of all applicants. (See Fairfax Academy website for audition information.)**

**(Selected sites or transportation may be provided to Fairfax Academy or West Potomac Academy.)**

Students will study advanced performance techniques specific to both classic and modern American musical theatre including acting, body/stage movement, and singing technique. Students will explore the history of musical theatre as well as current topics related to auditioning and resume development. Students will participate in school-based performances that may be in conjunction with students from an advanced technical theatre course. For more information, visit the academy web site.

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

#### **PROFESSIONAL MUSICAL THEATRE AND ACTOR'S STUDIO 2 (144027)**

**Grades: 12** **Credit: two**

**Prerequisite: Professional Musical Theatre and Actor's Studio 1**

**(Selected sites or transportation may be provided to Fairfax Academy or West Potomac Academy.)**

Students will continue to study advanced performance techniques specific to both classic and modern American musical theatre including acting, body/stage movement, and singing technique. Students will continue to explore the history of musical theatre as well as current topics related to auditioning and resume development. Students will participate in school-based performances that may be in conjunction with students from an advanced technical theatre course. For more information, visit the academy web site.

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

#### **PROFESSIONAL MUSICAL THEATRE AND ACTOR'S STUDIO 3 (145027)**

**Grades: 12** **Credit: two**

**Prerequisite: Professional Musical Theatre and Actor's Studio 2 or teacher recommendation**

**(Selected sites or transportation may be provided to Fairfax Academy or West Potomac Academy.)**

Students will expand and deepen their knowledge and skills developed in levels 1 and 2. Outside class projects such as auditioning for community, high school, semi-professional and professional theatres, scene directing, reviewing performances in the area, and interviewing area professionals will be required. Also required will be in-class presentations on topics of interest or areas of expertise. For more information, visit the academy web site.

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

### **FINE ARTS THEATRE ARTS**

#### **THEATRE ARTS 1 (141000)**

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

**Credit: one**

Theatre Arts 1 provides students with a survey of the theatre arts, allowing students the opportunities to experience and appreciate dramatic literature, and participate in the creative processes of performance and production. The course emphasizes skill development and provides theatrical opportunities that enable students to determine personal areas of interest. Participation in co-curricular theatre productions may be arranged. This course may be used to satisfy the graduation requirement for a credit in fine and practical arts.

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

#### **THEATRE ARTS 2 (142000)**

**Grades: 10, 11, 12**

**Credit: one**

**Prerequisite: Theatre Arts 1 and/or recommendation of the theatre arts instructor.**

Theatre Arts 2 integrates and builds upon concepts and skills from Theatre Arts 1. Through various modes of expression and performance, students investigate dramatic literature, theatrical styles, and historical periods. Students will study and respond to a variety of theatre experiences that will refine their communicative, collaborative, analytical, interpretive, and problem solving skills. Students will expand their artistic abilities and appreciation of the theatrical arts. Students must meet both the school day and after-school participation requirements to receive credit for the course. This course may be used to satisfy the graduation requirement for a credit in fine and practical arts.

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

#### **THEATRE ARTS 3 (143000)**

**Grades: 11, 12**

**Credit: one**

**Prerequisite: Theatre Arts 2 and/or recommendation of the theatre arts instructor.**

Students exhibit independence, discipline, and commitment to the theatre process through their work on assigned projects. Advanced work in acting skills and preparation, play analysis, and character interpretation are expected. Collaboration with actors and directors is augmented by special assignments and opportunities. Students must meet both the school day and after-school participation requirements to receive credit for the course. This course may be used to satisfy the graduation requirement for a credit in fine arts.

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

**THEATRE ARTS 4 (144000)****Grades: 12****Credit: one****Prerequisite: Theatre Arts 3 and/or recommendation of the theatre arts instructor.**

Students identify areas of special interest in theatre arts, and initiate and complete major research and/or creative projects, such as playwriting, producing, directing, designing, and stage-managing. Emphasis is placed on in-depth study and completion of projects, assumption of leadership roles, and expansion of criteria for self-evaluation. Students will analyze and evaluate scripts, concentrate on vocal and physical dramatics, and undertake a special theatre project in their area of specialization. Students are expected to assume leadership positions in co-curricular theatre productions. Participation in major projects related to the co-curricular theatre productions may be required. Students must meet both the school day and after-school participation requirements to receive credit for the course. This course may be used to satisfy the graduation requirement for a credit in arts.

**This course requires a student materials fee as listed in FCPS Notice 5922.****TECHNICAL THEATRE 1 (143511)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Theatre Arts 1 and/or recommendation of theatre arts instructor.**

Students explore various areas of technical theatre such as lighting, costumes, sound, scenery, makeup, properties, and theatre management. An analysis of dramatic literature leads students to an understanding of the design and production process. Participation in co-curricular productions is strongly encouraged. This course may be used to satisfy the graduation requirement for a credit in fine arts.

**This course requires a student materials fee as listed in FCPS Notice 5922.****TECHNICAL THEATRE 2 (143512)****Grades: 10, 11, 12****Credit: one****Prerequisite: Technical Theatre 1 and/or recommendation of theatre arts instructor**

Students apply technical theatre knowledge and skills by participating in a variety of theatre lab activities and practical projects. Emphasis is on script interpretation and execution of the design concept. Students will collaborate to effectively and safely create functional scenery, properties, lighting, sound, costumes and makeup, and to develop stage management, business and public relations skills. Students must meet both the school day and after-school participation requirements to receive credit for the course. This course may be used to satisfy the graduation requirement for a credit in fine arts.

**This course requires a student materials fee as listed in FCPS Notice 5922.****TECHNICAL THEATRE 3 (143513)****Grades: 11, 12****Credit: one****Prerequisite: Technical Theatre 2 or recommendation of the instructor**

Students exhibit independence, discipline, and commitment to the theatre process through their work on assigned projects. Advanced work in technical elements of production is augmented by special assignments and opportunities. Students must meet both the school day and after-school participation requirements to receive credit for the course. This course may be used to satisfy the graduation requirement for a credit in fine arts.

**This course requires a student materials fee as listed in FCPS Notice 5922.****IB THEATRE ARTS I (143008)****Standard Level year 1****Grades: 11****Credit: one/weighted +1.0****Prerequisite: Theatre Arts 1 and 2 strongly recommended or by permission of theatre arts instructor**

Students engage in an in-depth study of the nature, theories, and processes of theatre and theatrical production through both practical and theoretical applications of the art form. Concurrently, students involve their senses, bodies and emotions to understand the forms theatre takes in cultures other than their own. Students will develop a portfolio including a journal and visual materials that catalog the development of the student's performance skills and production contributions. Summer assignment may be required. Students are required to take the standard level exam at the end of year 2.

**This course requires a student materials fee as listed in FCPS Notice 5922.****IB THEATRE ARTS SL (144008)****Standard level year 2****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: IB Theatre Arts Standard Level year one**

Students expand upon an in-depth study of the nature, theories and processes of theatre and theatrical production through both practical and theoretical applications of the art form. Concurrently, students involve their senses, bodies and emotions to understand the forms theatre takes in cultures other than their own. Students complete a critical evaluation of an external production that becomes part of their 3000 word portfolio. Students develop a high degree of aptitude in acting, directing, playwriting, or design. Summer assignment may be required. Students are required to take the standard level exam at the end of this course.

**This course requires a student materials fee as listed in FCPS Notice 5922.****IB THEATRE ARTS HL (143009)****Higher Level year 1****Grades: 11****Credit: one/weighted +1.0****Prerequisite: Theatre Arts 1 and 2 strongly recommended or by permission of instructor**

Students engage in an in-depth study of the nature, theories, and processes of theatre and theatrical production through both practical and theoretical applications of the art form. Concurrently, students involve their senses, bodies and emotions to understand the forms theatre takes in cultures other than their own. Students will develop a portfolio including a journal and visual materials that catalog the development of the student's performance skills and production contributions. Students develop a high degree of aptitude in acting, directing, playwriting, or design. Summer assignment may be required. Students are required to take the higher level exam at the end of year 2.

**This course requires a student materials fee as listed in FCPS Notice 5922.****IB THEATRE ARTS HL II (144009)****Higher Level year 2****Grades: 12****Credit: one/weighted +1.0****Prerequisite: IB Theatre Arts Higher Level year one**

Students expand upon an in-depth study of the nature, theories and processes of theatre and theatrical production through both practical and theoretical applications of the art form. Concurrently, students involve their senses, bodies and emotions to understand the forms theatre takes in cultures other than their own. Students complete a critical evaluation of an external production plus an individual study consisting of a self-designed project that becomes part of their 4500 word portfolio. Students develop a high degree of aptitude in acting, directing, playwriting, or design. Summer assignment may be required. Students are required to take the higher level exam at the end of this course.

**This course requires a student materials fee as listed in FCPS Notice 5922.****ADVANCED TECHNICAL THEATRE 1 (143527)****Grades: 11, 12****Credit: two****Prerequisite: 11th or 12th grade standing, Technical Theatre 2, or permission of instructor****(Fairfax Academy - transportation may be provided)**

Students will explore advanced topics specifically in theatrical design, including set, lighting, sound, costuming, and dramaturgy. Students will learn how to find inspiration for design; explore artistic elements such as color, line, texture, and shape; draft using an architect scale rule; understand and implement McCandless and additive/subtractive color theories; as well as research and effectively draw human figures. Students are given time to focus on design with the emphasis on taking these acquired skills back to their base school to employ them practically, and they will focus on the creation of a professional portfolio. For more information, visit the academy web site.

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

**ADVANCED TECHNICAL THEATRE 2 (143567)****Grades: 12****Credit: two****Prerequisite: Advanced Technical Theatre 1 (Fairfax Academy - transportation may be provided)**

Students will explore advanced topics specifically in theatrical design, including set, lighting, sound, costuming, and dramaturgy. Students will learn how to find inspiration for design; explore artistic elements such as color, line, texture, and shape; draft using an architect scale rule; understand and implement McCandless and additive/subtractive color theories; as well as research and effectively draw human figures. Students are given time to focus on design with the emphasis on taking these acquired skills back to their base school to employ them practically, and they will focus on the creation of a professional portfolio. For more information, visit the academy web site.

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

**PROFESSIONAL MUSICAL THEATRE AND ACTOR'S STUDIO 1 (143027)****Grades: 11, 12****Credit: two****Prerequisite: One of the following: Theatre Arts, Chorus, or Dance. Audition is also required of all applicants. (See Fairfax Academy website for audition information.)****(Selected sites or transportation may be provided to Fairfax Academy or West Potomac Academy.)**

Students will study advanced performance techniques specific to both classic and modern American musical theatre including acting, body/stage movement, and singing technique. Students will explore the history of musical theatre as well as current topics related to auditioning and resume development. Students will participate in school-based performances that may be in conjunction with students from an advanced technical theatre course. For more information, visit the academy web site.

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

**PROFESSIONAL MUSICAL THEATRE AND ACTOR'S STUDIO 2 (144026)****Grades: 12****Credit: one****Prerequisite: Professional Musical Theatre and Actor's Studio 1 (Selected sites or transportation may be provided to Fairfax Academy)**

Students will continue study of advanced performance techniques specific to both classic and modern American musical theatre including acting, body/stage movement, and singing technique. Students will continue exploration of the history of musical theatre as well as current topics related to auditioning and resume development. Students will participate in school-based performances that may be in conjunction with students from an advanced technical theatre course. For more information, visit the academy web site.

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

**PROFESSIONAL MUSICAL THEATRE AND ACTOR'S STUDIO 2 (144027)****Grades: 12****Credit: two****Prerequisite: Professional Musical Theatre and Actor's Studio 1 (Selected sites or transportation may be provided to Fairfax Academy or West Potomac Academy.)**

Students will continue to study advanced performance techniques specific to both classic and modern American musical theatre including acting, body/stage movement, and singing technique. Students will continue to explore the history of musical theatre as well as current topics related to auditioning and resume development. Students will participate in school-based performances that may be in conjunction with students from an advanced technical theatre course. For more information, visit the academy web site.

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

**PROFESSIONAL MUSICAL THEATRE AND ACTOR'S STUDIO 3 (145027)****Grades: 12****Credit: two****Prerequisite: Professional Musical Theatre and Actor's Studio 2 or teacher recommendation****(Selected sites or transportation may be provided to Fairfax Academy or West Potomac Academy.)**

Students will expand and deepen their knowledge and skills developed in levels 1 and 2. Outside class projects such as auditioning for community, high school, semi-professional and professional theatres, scene directing, reviewing performances in the area, and interviewing area professionals will be required. Also required will be in-class presentations on topics of interest or areas of expertise. For more information, visit the academy web site.

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

**FINE ARTS  
VISUAL ARTS****STUDIO ART & DESIGN 1 (912000)****Grades: 9, 10, 11, 12****Credit: one**

Explore a variety of exciting opportunities and materials to inform the artmaking process. Learn to think conceptually and realize potential as a creative and critical thinker in order to meet the challenges of 21st century living. Explore personal interests while developing skills in the areas of drawing, painting, printmaking, ceramics, sculpture, and digital media. Course content includes art production, art appreciation, and studies in visual culture.

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

**STUDIO ART & DESIGN 2 (913000)****Grades: 10, 11, 12****Credit: one****Prerequisite: STUDIO ART AND DESIGN 1**

Cultivate previously developed artistic knowledge and skills learned in Studio Art and Design 1. Explore new combinations and possibilities in the use of two-dimensional and three-dimensional media including technological applications. Investigate contemporary topics as they relate to artistic expression and design. Ask questions, solve problems, create products, and communicate ideas in innovative ways. Course content includes art production, design thinking, art history and criticism, aesthetics, and studies in visual culture.

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

**STUDIO ART & DESIGN 3 (914000)****Grades: 11, 12****Credit: one****Prerequisite: STUDIO ART AND DESIGN 2**

Expand and improve artistic understandings and skills by using creative processes. Develop an individual style and voice to communicate ideas. Articulate responses to personal and global issues through the integration of traditional and electronic media. Present artworks in diverse formats. Course content includes art production, design application, art history, criticism, aesthetics, and studies in visual culture.

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

**STUDIO ART & DESIGN 4: PORTFOLIO PREPARATION GENERAL (914700)****Grades: 12****Credit: one****Prerequisite: STUDIO ART AND DESIGN 3**

Engage in advanced study of art production, art history, aesthetics, and art criticism while maintaining the attitude and self-discipline of a working artist. Practice and exhibit technical proficiency and personal style, work in advanced media, and apply professional presentation techniques to develop and prepare artwork for exhibitions and portfolios. Demonstrate quality, concentration, and breadth of experience in a body of work and select work for personal exhibitions, exit portfolios, and presentation portfolios.

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

**CERAMICS 1 (FULL YEAR) (917560)****Grades: 10, 11, 12****Credit: one****Prerequisite: Studio Art and Design 1 or permission of the instructor**

Practice and apply three-dimensional design and ceramic techniques. Explore a variety of materials and approaches to create functional and decorative ceramic objects. Think creatively and critically to meet challenges and solve problems in innovative ways. Study the history of ceramics and leading contemporary ceramic artists to inform artmaking. Compile and maintain a required ceramic art portfolio.

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

**CERAMICS 1 (FALL SEMESTER) (917563)****Grades: 10, 11, 12****Credit: one-half****Prerequisite: Studio Art and Design 1 or permission of the instructor**

Practice and apply three-dimensional design and ceramic techniques. Explore a variety of materials and approaches to create functional and decorative ceramic objects. Think creatively and critically to meet challenges and solve problems in innovative ways. Study the history of ceramics and leading contemporary ceramic artists to inform artmaking. Compile and maintain a required ceramic art portfolio.

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

**CERAMICS 1 (SPRING SEMESTER) (917564)****Grades: 10, 11, 12****Credit: one-half****Prerequisite: Studio Art and Design 1 or permission of the instructor**

Practice and apply three-dimensional design and ceramic techniques. Explore a variety of materials and approaches to create functional and decorative ceramic objects. Think creatively and critically to meet challenges and solve problems in innovative ways. Study the history of ceramics and leading contemporary ceramic artists to inform artmaking. Compile and maintain a required ceramic art portfolio.

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

**CERAMICS 2 (FULL YEAR) (917660)****Grades: 11, 12****Credit: one****Prerequisite: CERAMICS 1 (3-D STUDIO ART)**

Engage in advanced study of ceramics to acquire and apply in-depth knowledge of ceramic processes. Explore form and material to sharpen techniques and to create original ceramic objects. Study historical and cultural styles and leading practitioners to inform artmaking. Improve understanding and production through critique and evaluation processes. Use professional exhibition techniques to arrange a comprehensive display of personal work and the work of others. Compile a culminating ceramic art portfolio evidencing expressive content, quality, concentration, and breadth of experience.

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

**CERAMICS 2 (FALL SEMESTER) (917667)****Grades: 10, 11, 12****Credit: one-half****Prerequisite: CERAMICS 1 (3-D STUDIO ART)**

Engage in advanced study of ceramics to acquire and apply in-depth knowledge of ceramic processes. Explore form and material to sharpen techniques and to create original ceramic objects. Study historical and cultural styles and leading practitioners to inform artmaking. Improve understanding and production through critique and evaluation processes. Use professional exhibition techniques to arrange a comprehensive display of personal work and the work of others. Compile a culminating ceramic art portfolio evidencing expressive content, quality, concentration, and breadth of experience.

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

**CERAMICS 2 (SPRING SEMESTER) (917668)****Grades: 10, 11, 12****Credit: one-half****Prerequisite: CERAMICS 1 (3-D STUDIO ART)**

Engage in advanced study of ceramics to acquire and apply in-depth knowledge of ceramic processes. Explore form and material to sharpen techniques and to create original ceramic objects. Study historical and cultural styles and leading practitioners to inform artmaking. Improve

understanding and production through critique and evaluation processes. Use professional exhibition techniques to arrange a comprehensive display of personal work and the work of others. Compile a culminating ceramic art portfolio evidencing expressive content, quality, concentration, and breadth of experience.

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

**3-D STUDIO ART 3: PORTFOLIO PREPARATION (914763)****Grades: 12****Credit: one****Prerequisite: 3-D STUDIO ART 2**

Engage in advanced study of three-dimensional studio art processes, aesthetics, and criticism. Use advanced level three-dimensional materials and equipment to produce meaningful artworks that exhibit technical proficiency and personal style. Communicate ideas in unique and innovative ways and demonstrate initiative and commitment to the pursuit of artistic expression. Organize and present an exhibition of personal artworks and the work of others. Compile a body of work in a final portfolio.

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

**COMPUTER GRAPHICS 1 (918011)****Grades: 9, 10, 11, 12****Credit: one**

Think creatively and solve visual problems to create personally expressive, original artworks using technology. Develop expertise in the use of computers, scanners, and digital cameras for artmaking. Use Adobe Photoshop, Adobe Illustrator, Bryce 3-D, and Adobe Flash in the areas of motion graphics/animation, graphic design, and digital imaging. Learn to address ethical issues concerning computer generated imagery. No prior computer experience is required.

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

**COMPUTER GRAPHICS 2 (918111)****Grades: 10, 11, 12****Credit: one****Prerequisite: COMPUTER GRAPHICS 1**

Expand knowledge in the application of computer hardware and software to create personally expressive, original art. Solve complex visual problems within the areas of multimedia presentations, motion graphics/animation, graphic design, and digital imaging using Adobe Photoshop, Adobe Illustrator and Adobe Flash. Prepare a final required portfolio for evaluation.

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

**COMPUTER GRAPHICS 3 (918211)****Grades: 11, 12****Credit: one****Prerequisite: COMPUTER GRAPHICS 2**

Expand knowledge and ability in the application of hardware and software to create personally expressive, original art. Create visual solutions using a variety of media, including motion graphics/animation, graphic design, game development, web design and print design. A final portfolio or demo reel is required for evaluation.

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

**COMPUTER GRAPHICS 4: PORTFOLIO PREPARATION (919911)****Grades: 12****Credit: one****Prerequisite: COMPUTER GRAPHICS 3**

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

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

**PHOTOGRAPHY 1 (919311)****Darkroom Photography****Grades: 9, 10, 11, 12****Credit: one**

Explore and practice standard black and white photographic processes through the use of cameras, films, light effects, and application of basic darkroom techniques. Be introduced to digital photographic processes. Produce meaningful photographs that express ideas about experiences and observations of the world. Study the history of photography and the work of well known photographers to inform artmaking. Develop a beginning portfolio.

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

**PHOTOGRAPHY 2 (919411)****Darkroom Photography****Grades: 10, 11, 12****Credit: one****Prerequisite: PHOTOGRAPHY 1**

Expand on the study of black and white photography and digital processes. Acquire and apply in-depth knowledge of photographic equipment, films, and specialized processes to include digital applications. Investigate leading exponents, equipment, and techniques from an historical perspective. Learn to critique and evaluate personal artwork and photographic works of others. Examine photography and its relationship to other art forms. Prepare a portfolio of meaningful artworks that demonstrate expressive content and quality of craftsmanship.

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

**PHOTOGRAPHY 3 (919511)****Darkroom Photography****Grades: 11, 12****Credit: one****Prerequisite: PHOTOGRAPHY 2**

Develop a thematic path that integrates an in-depth exploration of film and digital processes. Explore various career paths in photography such as Photo Journalism, Commercial and Fine Art Photography. Apply professional exhibition techniques to present own work. Develop a quality portfolio that effectively illustrates a personal voice.

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

**VISUAL COMMUNICATIONS 1 (915311)****Digital Photography****Grades: 9, 10, 11, 12****Credit: one**

Develop and apply techniques in visual communication through the use of traditional and electronic media. Create original artworks for a variety of intended purposes such as personal, commercial, informational, social, cultural and environmental. Develop an understanding of ways in which artists communicate meaningful ideas for a specific purpose or intent. Become familiar with ethical issues related to the field of visual communications. Maintain a traditional and non-traditional sketchbook in addition to compiling a beginning visual communications portfolio.

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

**VISUAL COMMUNICATIONS 2 (915411)****Digital Photography****Grades: 10, 11, 12****Credit: one****Prerequisite: VISUAL COMMUNICATIONS 1**

Create original works that express depth of thought and complex ideas through visual communication. Use a variety of 2-D, 3-D, and 4-D traditional and electronic media to communicate ideas related to personal, commercial, informational, social, political, cultural, spiritual, or environmental issues. Work with design components, consider technical aspects and focus on ways to interact with the viewer in communication of ideas. Maximize creative approaches and take into account the parameters of a client-driven environment. Conduct oral presentations and critiques and compile a required portfolio based on evidence of content, design quality, and technical skill. Address ethical issues related to the field of visual communications.

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

**VISUAL COMMUNICATIONS 3: PORTFOLIO PREPARATION****(915511)****Digital Photography****Grades: 11, 12****Credit: one****Prerequisite: VISUAL COMMUNICATIONS 2**

Refine technical skills and develop a personal style in an advanced study of visual communications. Exhibit initiative, commitment, and an openness to new approaches and conduct an in-depth exploration of a specific idea or theme. Consider aesthetics and issues related to the influence of mass media and visual culture in the development of personal artistic style, and use of symbolism and content. Compile a required final portfolio evidencing effective content, quality, concentration, and breadth of experience. Arrange and present an exhibition of personal artwork. Address ethical issues related to the field of visual communications.

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

**IB VISUAL ARTS I (914908)****Standard Level year 1****Grades: 11****Credit: one/weighted +1.0****Prerequisite: Studio Art and Design 1 and 2 or permission of instructor**

Students engage in advanced study of art processes, aesthetic issues, art criticism, and art history and culture while maintaining the self-discipline of the working artist. They exhibit technical proficiency and personal style while working in advanced media, and arrange an art show of their own work using professional exhibiting techniques. A culminating portfolio evidencing quality, a thematic series, breadth of work, progress over time, and highest level of achievement will be required. An investigation workbook which evidences critical research in an area agreed upon by the teacher and the student is required. Students are required to take the standard level exam at the end of year 2. Standard level students must complete the IB Visual Arts I requirements within a two-year period.

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

**IB VISUAL ARTS HL (914909)****Higher Level year 1****Grades: 11****Credit: one/weighted +1.0****Prerequisite: Studio Art and Design 1 and 2 or permission of instructor**

Students engage in advanced study of art processes, aesthetic issues, art criticism, and art history and culture while maintaining the self-discipline of the working artist. They exhibit technical proficiency and personal style while working in advanced media, and arrange an art show of their own work using professional exhibiting techniques. A culminating portfolio evidencing quality, a thematic series, breadth of work, progress over time, and highest level of achievement will be required. An investigation workbook which evidences critical research in an area agreed upon by the teacher and the student is required. Designed for the highly motivated visual arts student with imaginative and creative abilities, who may wish to pursue the visual arts at the university or college level. Students are required to take the higher level exam at the end of year 2. Higher level students must complete the Visual Arts II requirements within a two-year period.

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

**IB VISUAL ARTS SL II (915108)****Standard Level year 2****Grades: 12****Credit: one/weighted +1.0****Prerequisite: IB VISUAL ARTS I Standard Level Year 1**

Students engage in advanced study of art processes, aesthetic issues, art criticism, and art history and culture while maintaining the self-discipline of the working artist. They exhibit technical proficiency and personal style while working in advanced media, and arrange an art show of their own work using professional exhibiting techniques. A culminating portfolio evidencing quality, a thematic series, breadth of work, progress over time, and highest level of achievement will be required. An investigation workbook which evidences critical research in an area agreed upon by the teacher and the student is required. Students are required to take the standard level exam at the end of year 2. Standard level students must complete the IB Visual Arts I requirements within a two-year period.

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

**IB VISUAL ARTS HL II (915109)**

Higher Level year 2

Grades: 12

Credit: one/weighted +1.0

Prerequisite: IB VISUAL ARTS HL 1 year 1

Students engage in advanced study of art processes, aesthetic issues, art criticism, and art history and culture while maintaining the self-discipline of the working artist. They exhibit technical proficiency and personal style while working in advanced media, and arrange an art show of their own work using professional exhibiting techniques. A culminating portfolio evidencing quality, a thematic series, breadth of work, progress over time, and highest level of achievement will be required. An investigation workbook which evidences critical research in an area agreed upon by the teacher and the student is required. Designed for the highly motivated visual arts student with imaginative and creative abilities, who may wish to pursue the visual arts at the university or college level. Students are required to take the higher level exam at the end of year 2. Higher level students must complete the IB Visual Arts II requirements within a two-year period.

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

**GENERAL****ARMY JUNIOR RESERVE OFFICERS' TRAINING CORPS (AJROTC) (791312)**

Leadership Education and Training 1 (LET 1)

Grades: 9, 10, 11, 12

Credit: one

This course is the first in a sequence that combines the development of critical thinking, planning, communication, and organizational skills with a study of the fundamental aspects of American citizenship, map reading, first aid, physical fitness, and an overview of American history. Students learn of the dangers of substance abuse and the importance of goal-setting. Additionally, they have the opportunity to study Army customs, consumer education and budgeting, ceremonial drill, and current events. This program is only offered on-site at West Potomac, Hayfield, Edison, and South Lakes High Schools and Lake Braddock Secondary. Students may be granted pupil placement if course enrollment is desired. Army JROTC program provides a four-year, sequential program of instruction that emphasizes academic preparation, citizenship, leadership, and character development for all students in grades 9 - 12. The sequence of courses is progressive and builds upon the previous year's curriculum.

**Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma.**

**ARMY JUNIOR RESERVE OFFICERS' TRAINING CORPS (AJROTC) (791612)**

Leadership Education and Training 2 (LET 2)

Grades: 10, 11, 12

Credit: one

Prerequisite: LET 1

This full-year course builds upon the skills and knowledge taught in LET 1. Students continue their study of citizenship by examining ethical behavior and the principles of participatory democracy. They develop team-building skills while learning the fundamentals of drill. Students study leadership and management qualities, first aid skills, intermediate map-reading skills, American history and different aspects of technology and communication. This program is only offered on-site at West Potomac, Hayfield, Edison, and South Lakes High Schools and Lake Braddock Secondary. Students may be granted pupil placement if course enrollment is desired. Army JROTC program provides a four-year, sequential program of instruction that emphasizes academic preparation, citizenship, leadership, and character development for all students in grades 9 - 12. The sequence of courses is progressive and builds upon the previous year's curriculum.

**Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma.**

**ARMY JUNIOR RESERVE OFFICERS' TRAINING CORPS (AJROTC) (791812)**

Leadership Education and Training 3 (LET 3)

Grades: 11, 12

Credit: one

Prerequisite: LET 2

LET 3 students begin to apply leadership and leadership assessment principles, heighten their communication skills, and assist in teaching basic military skills such as map reading, first aid, and drill. Students are given the opportunity to solve different types of problems and supervise subordinates. This program is only offered on-site at West Potomac, Hayfield, Edison, and South Lakes High Schools and Lake Braddock Secondary. Students may be granted pupil placement if course enrollment is desired. Army JROTC program provides a four-year, sequential program of instruction that emphasizes academic preparation, citizenship, leadership, and character development for all students in grades 9 - 12. The sequence of courses is progressive and builds upon the previous year's curriculum.

**Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma.**

**ARMY JUNIOR RESERVE OFFICERS' TRAINING CORPS (AJROTC) (791912)**

Leadership Education and Training 4 (LET 4)

Grades: 12

Credit: one

Prerequisite: LET 3

LET 4 gives students the opportunities to lead, supervise, teach and coach younger students. They apply previously learned knowledge and principles of communication, leadership, ethical reasoning, and decision-making. Students enhance their knowledge of American history and learn to market themselves for a job. This program is only offered on-site at West Potomac, Hayfield, Edison, and South Lakes High Schools and Lake Braddock Secondary. Students may be granted pupil placement if course enrollment is desired. Army JROTC program provides a four-year, sequential program of instruction that emphasizes academic preparation, citizenship, leadership, and character development for all students in grades 9 - 12. The sequence of courses is progressive and builds upon the previous year's curriculum.

**Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma.**

**LEADERSHIP TRAINING 1 (980814)**

AJROTC

Grades: 11, 12

Credit: one

This course provides leadership training to interested students. It is especially appropriate for AJROTC students. The course includes understanding leadership, assessment of leadership styles, planning and organization skills, relationship building and problem solving. Special focus will be placed on organization, time management, election processes, financial planning, opinion surveys, communication techniques, and community liaison.

**LEADERSHIP TRAINING 1 (980800)**

Student Government

Grades: 9, 10, 11, 12

Credit: one

This course provides leadership training to interested students. It is especially appropriate for student body officers, organizational leaders, and class officers. The course includes understanding leadership, assessment of leadership styles, planning and organization skills, relationship building and problem solving. Focus will be placed on organization, time management, election processes, financial planning, opinion surveys, communication techniques, and becoming a community liaison. Student government and class activities will be the basis around which most of the course work is designed.

**IB APPROACH TO LEARNING 1 (984011)****Grades: 11****Credit: non-credit**

The IB Approaches to Learning (ATL) course challenges IB Career-related Certificate (IBCC) students in the areas of thinking, intercultural understanding, communication, and personal development. The focus of the ATL course is studying what we know in a specified career and technical field of knowledge and how we know it. Students are led to make connections among their classroom and non-classroom knowledge and experience, and they examine the ethics, value judgments, and belief systems of the various disciplines. Through the ATL course, students will develop good intellectual habits; practical problem-solving skills; ethical, creative and lateral thinking skills; self-awareness; individual strengths and limitations; intercultural awareness; communication skills; personal and interpersonal skills for the workplace and beyond; the skills of reflection and critical thinking in personal, social and professional situations; and an understanding that many questions, issues or problems do not always have simple right or wrong answers. IBCC students will produce a reflective project that investigates and focuses on an ethical dimension of an issue arising from the student's career/vocational studies. The reflective project is intended to promote high-level research and writing skills, intellectual discovery and creativity. This course carries a weighted grade.

**IB THEORY OF KNOWLEDGE (982008)****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: Enrollment in the IB program**

The IB Theory of Knowledge (TOK) course challenges students in the areas of critical thinking and integration of knowledge. The focus of the TOK course is studying what we know in the various fields of knowledge and how we know it. Students are led to make connections among their classroom and non-classroom knowledge and experience, and they examine the ethics, value judgments, and belief systems of the various disciplines. Students develop a critical awareness of the fields of knowledge; study the procedures, processes, and methodologies of each field; recognize the biases inherent in each discipline; understand and appreciate the importance of inquiry as a basis for knowledge; and apply standards of logic and reasoned argument to intellectual problems. Topic of study include comparing four ways of knowing, reason, sense perception, language and emotion; understanding different knowledge systems: mathematics, natural sciences, human sciences, and history, and understanding value judgment, bias, and culture across disciplines. This course carries a weighted grade.

**IB THEORY OF KNOWLEDGE (982018)****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: Enrollment in one or more IB courses.**

**\*Evening TOK is for students who cannot fit required courses into the regular school day. All evening TOK requests must be approved.**

The IB Theory of Knowledge (TOK) course challenges students in the areas of critical thinking and integration of knowledge. The focus of the TOK course is studying what we know in the various fields of knowledge and how we know it. Students are led to make connections among their classroom and non-classroom knowledge and experience, and they examine the ethics, value judgments, and belief systems of the various disciplines. Students develop a critical awareness of the fields of knowledge; study the procedures, processes, and methodologies of each field; recognize the biases inherent in each discipline; understand and appreciate the importance of inquiry as a basis for knowledge; and apply standards of logic and reasoned argument to intellectual problems. Topic of study include comparing four ways of knowing, reason, sense perception, language and emotion; understanding different knowledge systems: mathematics, natural sciences, human sciences, and history, and understanding value judgment, bias, and culture across disciplines. This course carries a weighted grade. 982018 is offered after school.

**HEALTH & MEDICAL SCIENCES****ANIMAL SCIENCE 1 (831027)****Grades: 10, 11, 12****Credit: two****(Chantilly and Edison Academies - transportation may be provided)**

Students interested in studying animals and desiring experience in the care of a variety of animals will benefit from this course. The course is designed for students interested in a career in the animal health care field. Core

curriculum includes animal anatomy, animal behavior, handling techniques, nutrition, disease pathology, sanitation, and disease control. Students gain hands-on experience working with laboratory animals. Students must purchase a lab apron and provide proof of current tetanus immunization for this course. For more information, visit the academy web site.

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

**ANIMAL SCIENCE 2 (831127)****Grades: 11, 12****Credit: two****Prerequisite: Animal Science 1 (831027)****(Chantilly and Edison Academies - transportation may be provided)**

Course content progresses from Animal Science 1 and includes more in-depth instruction and skill training necessary for a variety of high-tech animal science employment opportunities. Students continue to work with laboratory animals and have the opportunity to observe or participate at selected animal care facilities, such as veterinary clinics and grooming facilities, throughout the community. Students must purchase a lab apron and provide proof of current tetanus immunization for this course. CVA (Certified Veterinary Assistant) credential is available upon successful completion of internship and certification exam. For more information, visit the academy web site.

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

**DENTAL CAREERS 1 (832827)****Grades: 11, 12****Credit: two****(Chantilly, Falls Church, and West Potomac Academies- transportation may be provided)**

Dental Careers 1 is the first-level course of a two-year dental assisting program. The course content focuses on introducing all dental-related careers as well as competencies necessary to manage a dental office. The curriculum includes head and neck anatomy, infection control, tooth charting, and instrumentation. The dental skills relevant to the curriculum are practiced in a classroom dental clinic. Lab coats or scrubs must be purchased for this class. For more information, visit the academy web site. **Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.**

**DENTAL CAREERS 2 (832927)****Grades: 12****Credit: two****Prerequisite: Dental Careers 1 (832827)****(Chantilly, Falls Church, and West Potomac Academies - transportation may be provided)**

During the second year of this course, students refine advanced skills and learn more about the management of the office as well as the dental specialties of oral surgery, orthodontics, and periodontics. Students are provided the opportunity to experience an internship while participating in patient care at local dental offices and to earn a Dental Radiography Certification. Lab coats or scrubs must be purchased for this class. Students must purchase liability insurance and meet current dental health agency requirements to participate in clinical experiences. For more information, visit the academy web site.

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

**EXPLORING HEALTH SCIENCES (830226)**

**Grades: 10, 11, 12** **Credit: one**  
**(Chantilly, Falls Church, and West Potomac Academies - transportation may be provided) Please use course code 830226 for the semester course**

This is part one (fall semester) of a two-part, full-year course. Students must also register for part two, Exploring the Language of Medicine for the spring semester. It introduces the student to health care careers and develops basic skills common to all health and medical sciences. It is recommended as the first course for other health and medical sciences courses. This course focuses on exploring health careers, communication skills, safety, first aid, and Healthcare Provider CPR. It is offered at Chantilly, Falls Church, and West Potomac Academies. For more information, visit the academy web site.

**Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma.**

**EXPLORING THE LANGUAGE OF MEDICINE (838326)**

**Grades: 10, 11, 12** **Credit: one**  
**Prerequisite: Exploring Health Sciences**  
**(Chantilly, Falls Church, and West Potomac Academies - transportation may be provided) Please use course code 838326 for the semester course.**

This is part two (spring semester) of a two-part, full-year course. Students must also register for part one, Exploring Health Sciences for the fall semester. This course builds on the foundations of the Exploring Health Sciences course. Exploring the Language of Medicine is designed to help students learn medical terminology. It is presented in logical order, beginning with each body system's anatomy and physiology and progressing through pathology, diagnostic procedures, therapeutic interventions, and pharmacology. Concepts, terms, and abbreviations are also presented to the students. It is offered at Chantilly, Falls Church and West Potomac Academies. For more information, visit the academy web site.

**Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma.**

**FIRE AND EMERGENCY MEDICAL SCIENCES 1 (833326)**

**Grades: 11, 12** **Credit: one**  
**Prerequisite: Exploring Health Sciences and Exploring the Language of Medicine are recommended but not required.**  
**(Falls Church Academy - transportation may be provided)**

This is part one (fall semester) of a two-part, full-year course. Students must also register for part two, Fire and Emergency Medical Sciences 2 for the spring semester. Fire and Emergency Medical Sciences prepares the student to enter the workforce or pursue further education in the field of Emergency Medical Services (EMS) and Fire Science. The principles and practices of emergency response and fire fighting will be explored under the direct supervision of a certified EMT-B instructor. The curriculum consists of planned learning experiences in the classroom, laboratory, and faculty supervised clinical settings. Students will have the opportunity to observe and interact with a variety of patients experiencing varying degrees of injury or disease that are carefully selected to provide appropriate clinical learning experiences. As preparation, students will be provided with ample lab practice to fully prepare them for the clinical experience and minimize risks. During the course of study, students will have the opportunity to earn the following six certifications: Healthcare Provider CPR, Emergency Medical Technician-Basic (EMT-B), and Hazardous Materials Response, Bloodborne Pathogens, Community Emergency Response Team (CERT) and Introduction to Incident Command systems (ICS 100B). Offsite clinical lab opportunities at Northern Virginia Community College, Medical Education Center (NVCC MEC), and Fairfax County Fire and Rescue Academy will be available to the students. Students must purchase uniforms and liability insurance and meet current health agency requirements to participate in clinical experiences. Validated credit may be an option with NVCC. For more information, visit the academy web site.

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

**FIRE AND EMERGENCY MEDICAL SCIENCES 2 (833426)**

**Grades: 11, 12** **Credit: one**  
**Prerequisite: Fire & Emergency Medical Sciences 1 (833326)**  
**(Falls Church Academy - transportation may be provided)**

This is part two (spring semester) of a two-part, full-year course. Students must also register for part one, Fire and Emergency Medical Sciences 1 for the fall semester. Fire and Emergency Medical Sciences prepares the student to enter the workforce or pursue further education in the field of Emergency Medical Services (EMS) and Fire Science. The principles and practices of emergency response and fire fighting will be explored under the direct supervision of a certified EMT-B instructor. The curriculum consists of planned learning experiences in the classroom, laboratory, and faculty supervised clinical settings. Students will have the opportunity to observe and interact with a variety of patients experiencing varying degrees of injury or disease that are carefully selected to provide appropriate clinical learning experiences. As preparation, students will be provided with ample lab practice to fully prepare them for the clinical experience and minimize risks. During the course of study, students will have the opportunity to earn the following six certifications: Healthcare Provider CPR, Emergency Medical Technician-Basic (EMT-B), and Hazardous Materials Response, Bloodborne Pathogens, Community Emergency Response Team (CERT) and Introduction to Incident Command systems (ICS 100B). Offsite clinical lab opportunities at Northern Virginia Community College, Medical Education Center (NVCC MEC), and Fairfax County Fire and Rescue Academy will be available to the students. Students must purchase uniforms and liability insurance and meet current health agency requirements to participate in clinical experiences. Validated credit may be an option with NVCC. For more information, visit the academy web site.

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

**MEDICAL ASSISTANT 1 (834526)**

**Grades: 11, 12** **Credit: one**  
**Prerequisite: Exploring Health Sciences (830226) and Exploring the Language of Medicine (838326).**  
**(Chantilly, Falls Church and West Potomac Academies only - transportation may be provided)**

This is part one (fall semester) of a two-part, full-year course. Students must also register for part two, Medical Assistant 2 for the spring semester. Medical Assistant 1 allows students to develop entry-level skills and techniques to increase their knowledge base so that they may enter the health care field. Some of these skills and knowledge base areas include administrative and clinical medical assisting. Field trips to a variety of health care settings may be available. For more information, visit the academy web site.

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

**MEDICAL ASSISTANT 2 (834626)**

**Grades: 11, 12** **Credit: one**  
**Prerequisite: Medical Assistant 1 (834526)**  
**(Chantilly, Falls Church and West Potomac Academies only - transportation may be provided)**

This is part two (spring semester) of a two-part, full-year course. Students must also register for part one, Medical Assistant 1 for the fall semester. Students further develop medical-assisting skills and techniques learned in Medical Assistant 1. They also learn management of patient records, cardiopulmonary resuscitation, care and use of equipment, collection and analysis of laboratory specimens, special diagnostic testing, basic diseases and disorders, basic knowledge of treatment and medication, and job preparedness skills. Advanced on-the-job clinical experience in a health care facility may be available as a part of the course. Successful completion of the program may lead to employment in physicians' offices or clinics. Students must purchase uniforms and liability insurance and meet current health agency requirements to participate in clinical experiences. For more information, visit the academy web site.

**Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and**

Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

**PHARMACY TECHNICIAN 1 (830526)**  
Grades: 11, 12 Credit: one  
Prerequisite: Exploring Health Sciences and Exploring the Language of Medicine are recommended but not required.  
(Chantilly, Falls Church, and West Potomac Academies - transportation may be provided)

This is part one (fall semester) of a two-part, full-year course. Students must also register for part two, Pharmacy Technician 2 for the spring semester. The Pharmacy Technician course incorporates both classroom and clinical pharmacy experiences. The student will be given the opportunity to meet state pharmacy technician competencies as well as be exposed to the larger arena of pharmacy careers. Students in this course are eligible to sit for the Virginia Pharmacy Technician Certification provided they have a Social Security Number or a control number issued by the Virginia Department of Motor Vehicles as required by the Virginia Board of Pharmacy. For more information, visit the academy web site.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

**PHARMACY TECHNICIAN 2 (830626)**  
Grades: 11, 12 Credit: one  
Prerequisite: Pharmacy Technician 1  
(Chantilly, Falls Church, and West Potomac Academies - transportation may be provided)

This is part two (spring semester) of a two-part, full-year course. Students must also register for part one, Pharmacy Technician 1 for the fall semester. The Pharmacy Technician course incorporates both classroom and clinical pharmacy experiences. The student will be given the opportunity to meet state pharmacy technician competencies as well as be exposed to the larger arena of pharmacy careers. Students in this course are eligible to sit for the Virginia Pharmacy Technician Certification provided they have a Social Security Number or a control number issued by the Virginia Department of Motor Vehicles as required by the Virginia Board of Pharmacy. For more information, visit the academy web site.

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

**PHYSICAL THERAPY/OCCUPATIONAL THERAPY 1 (836527)**  
Grades: 11, 12 Credit: two  
Prerequisite: Biology 1, Exploring Health Sciences and Exploring the Language of Medicine are recommended but not required.  
(West Potomac Academy - transportation may be provided)

This course is designed to provide an introduction to the professions of physical and occupational therapy. Students will explore the principles and practices of therapists in the health care industry and may participate in a clinical experience under the direct supervision of a licensed physical and/or occupational therapist. Clinical skills in the areas of physical therapy and occupational therapy will enable students to gain experience in rehabilitative care, which is practiced throughout the continuum of care and across the lifespan of individuals. After successful completion of this course, students will be prepared for employment as a rehabilitation technician or students may seek higher education for specific degrees in a variety of fields such as physical therapy, occupational therapy, speech therapy, sports medicine, athletic training, chiropractic medicine, biology, or exercise physiology. Dual enrollment with Northern Virginia Community College may be available. Students must purchase scrubs and liability insurance and meet current health agency requirements to participate in clinical experiences. For more information, visit the academy web site.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement

for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

**PHYSICAL THERAPY/OCCUPATIONAL THERAPY 2 (836627)**  
Grades: 11, 12 Credit: two  
Prerequisite: Physical Therapy/Occupational Therapy 1 (836527)  
(West Potomac Academy - transportation may be provided)

Physical Therapy/Occupational Therapy 2 provides a more in-depth study of the topics covered in the first-level course with emphasis upon individual interests and strengths. Students will be able to select and participate in a clinical experience of their choice from a wide range of clinical settings serving diverse patient populations. The course work will focus on the advancement of problem-solving skills, hands-on techniques, and interpersonal skills with an introduction to clinical research. There will be a greater emphasis on musculoskeletal anatomy during the first two quarters of this course. This course is most appropriate for students anticipating employment or further studies in physical therapy, occupational therapy, or other related healthcare careers. Dual enrollment with Northern Virginia Community College may be available. Students must purchase scrubs and liability insurance and meet current health agency requirements to participate in clinical experiences. For more information, visit the academy web site.

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

**PRACTICAL NURSING 1 (835726)**  
Grades: 12 Credit: one  
Prerequisite: Biology 1 and Algebra 1. Exploring Health Sciences and Exploring the Language of Medicine are recommended but not required.  
(Falls Church Academy - transportation may be provided)

This is part one (fall semester) of a two-part, full-year course. Students must also register for part two, Practical Nursing 2 for the spring semester. This course offers preclinical nursing instruction during the student's senior year of high school. Foundations of nursing including communication, anatomy and physiology, and medical math, are the main units of focus. Competency-based instruction provides students with the skills needed to provide basic bedside nursing care used for hospitalized, nursing home, and homebound patients. Following successful completion of Practical Nursing 1 and 2, students electing to participate in the summer clinical are eligible to take the Certified Nursing Assistant (CNA) exam. Classes are held at Falls Church High School while community healthcare agencies serve as sites for the practical application of the learned competencies. Students must purchase uniforms and liability insurance and meet current health agency requirements to participate in clinical experiences. Eligibility for acceptance into nursing program includes strong algebra and biology grades, attendance, and student statement/essay. Successful completion of the Practical Nursing 1 and 2 courses allows students to take a nine-month, full-time postgraduate clinical internship program. The postgraduate clinical internship curriculum enables students to demonstrate advanced nursing competencies. Students in this course are eligible to sit for the Virginia Practical Nursing Licensing Exam (NCLEX) provided they have a Social Security Number or a control number issued by the Virginia Department of Motor Vehicles as required by the Virginia Board of Nursing. For more information, visit the academy web site.

Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

**PRACTICAL NURSING 2 (835826)**  
Grades: 12 Credit: one  
Prerequisite: PRACTICAL NURSING 1 (835726)  
(Falls Church Academy - transportation may be provided)

This is part two (spring semester) of a two-part, full-year course. Students must also register for part one, Practical Nursing 1 for the fall semester. This course offers preclinical nursing instruction during the student's senior year of high school. Foundations of nursing including communication, anatomy and physiology, and introduction to pharmacology, are the main units of focus. Competency-based instruction provides students with the skills needed to provide basic bedside nursing care used for hospitalized,

nursing home, and homebound patients. Following successful completion of Practical Nursing 1 and 2, students electing to participate in the summer clinical are eligible to take the Certified Nursing Assistant (CNA) exam. Classes are held at Falls Church High School while community healthcare agencies serve as sites for the practical application of the learned competencies. Students must purchase uniforms and liability insurance and meet current health agency requirements to participate in clinical experiences. Successful completion of the Practical Nursing 1 and 2 courses allows students to take a nine-month, full-time postgraduate clinical internship program. The postgraduate clinical internship curriculum enables students to demonstrate advanced nursing competencies. Students in this course are eligible to sit for the Virginia Practical Nursing Licensing Exam (NCLEX) provided they have a Social Security Number or a control number issued by the Virginia Department of Motor Vehicles as required by the Virginia Board of Nursing. For more information, visit the academy web site.

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

## HEALTH and PHYSICAL EDUCATION

### HEALTH AND PHYSICAL EDUCATION 9 (730000)

Grades: 9

Credit: one

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

### HEALTH AND PHYSICAL EDUCATION 10 (740500)

Grades: 10

Credit: one

**Prerequisite: Successful completion of Health and Physical Education, grade 9**

Students demonstrate competency in a lifetime sport or activity and demonstrate personal fitness planning. One quarter of the course includes instruction in the health education topics; personal and community health, nutrition, human growth and development, and injury and violence prevention. One quarter of the course includes the classroom component of driver education. The 90-minute Parent/Teen Traffic Safety Presentation is offered to fulfill the requirements of juvenile licensing. Grades from all quarters are averaged to determine the final course grade.

### SPORTS MEDICINE (763000)

Grades: 9, 10, 11, 12

Credit: one

**Prerequisite: Successful completion or concurrent enrollment in biology.**

Topics include medical professions, anatomy and physiology of skeletal and muscular systems, kinesiology, types of injuries, injury prevention and nutrition. Students may not take this course in lieu of the grade 9 or grade 10 Health or Physical Education requirements.

### PERSONAL FITNESS - LEVEL 1 Year (764011)

### PERSONAL FITNESS - LEVEL 1 Fall Semester (764061)

### PERSONAL FITNESS - LEVEL 1 Spring Semester (764062)

Grades: 10, 11, 12

Credit: one

**Prerequisite: Successful completion of Health and Physical Education, grade 9**

Students study and apply concepts related to human anatomy and physiology, kinesiology, nutrition, and personal fitness planning. Students will develop and participate in a personal fitness program to improve cardiorespiratory endurance, flexibility, muscular strength and endurance, and body composition. Students may not take this course in lieu of the grade 9 or grade 10 Health and Physical Education requirements.

### PERSONAL FITNESS - LEVEL 2 Year (764012)

### PERSONAL FITNESS - LEVEL 2 Fall Semester (764063)

### PERSONAL FITNESS - LEVEL 2 Spring Semester (764064)

Grades: 11, 12

Credit: one

**Prerequisite: Successful completion of Personal Fitness - Level 1**

Students extend and enrich their knowledge and the application of human anatomy and physiology, kinesiology, nutrition, and personal fitness planning. Students will develop and participate in a personal fitness program to improve cardiorespiratory endurance, flexibility, muscular strength and endurance, and body composition. Students will utilize concepts to assess, plan, monitor, and modify their individual personal fitness plan. Students may not take this course in lieu of the grade 9 or grade 10 Health and Physical Education requirements.

## MARKETING

### INTRODUCTION TO MARKETING (811000)

Grades: 9, 10

Credit: one

This introductory course in marketing enables students to gain a basic understanding of marketing principles, techniques, and career opportunities. Students will develop fundamental social, economic, mathematical, marketing, job search and decision-making skills necessary for successful initial employment in retail, wholesale, or service businesses. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. Field trips, guest speakers, and competitive events through DECA membership enhance the course work.

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

### MARKETING 1 (812000)

Grades: 10, 11, 12

Credit: one

Students are introduced to the foundations and functions involved in the successful marketing of goods, services and ideas to consumers. Students will study marketing and business foundations, career development, economics, selling, shortage prevention, human relations, communications, distribution, promotion, product planning, credit pricing, and marketing mathematics. Students may supplement the classroom instruction through participation in an internship experience, or they may enroll in the course without the additional commitment required through on-the-job training. While enrolled in this course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

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

### FASHION MARKETING 1 (814000)

Grades: 10, 11, 12

Credit: one

Fashion Marketing is a specialized course designed for students interested in the business aspect of the fashion industry. Curriculum units include an overview of basic apparel and accessories terminology, foundations and functions of business and marketing, sales and buying motives, economics, textiles, color, line and design, historical costume, career development, promotion, visual merchandising, and fashion show production. Cross curricular skills in research, merchandising mathematics, textile chemistry,

computer applications, and creative and technical writing are reinforced in this course. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. Work-based learning strategies appropriate for this course may include job shadowing, paid/unpaid internships, field trips, and/or cooperative education. Marketing simulations, case studies, projects, teamwork, guest speakers, and DECA competitions provide many opportunities for application of instructional competencies. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

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

#### **FASHION MARKETING 2 (814500)**

**Grades: 11, 12**

**Credit: one**

**Prerequisite: Marketing 1 (812000) or Fashion Marketing 1 (814000)**

This curriculum provides an in-depth study of merchandising techniques, fashion trends, fashion promotion, and management skills. Students may supplement the classroom instruction through an internship experience or they may enroll in the course without the additional commitment required through on-the-job training. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. (Students interested in this course should also see Fashion Design 1 under Family and Consumer Sciences.) The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

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

#### **SPORTS AND ENTERTAINMENT MARKETING (817500)**

**Grades: 10, 11, 12**

**Credit: one**

Sports and Entertainment Marketing is a unique and innovative course designed for students with an interest in the sports and entertainment industry. Instructional areas include: an orientation to the sports and entertainment industry, market analysis, decision making, event marketing, event execution, and the production of a culminating event and analysis of the event. Classroom instruction will be reinforced through the use of outside lectures, case studies, and field trip experiences. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

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

#### **ADVANCED SPORTS AND ENTERTAINMENT MARKETING**

**(817700)**

**Grades: 11, 12**

**Credit: one**

**Prerequisite: Sports and Entertainment Marketing (817500)**

Enrollment in this advanced-level course will allow students to expand their knowledge in the sports and entertainment field. Instructional topics include: contracts, the role of agents and personal managers, market research, planning and segmentation, group sales, business ethics, management, and entrepreneurship. Classroom instruction will be reinforced through the use of case studies, guest lecturers, and field trips. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

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

#### **MARKETING COOPERATIVE INTERNSHIP (CO-OP) (819920)**

**Grades: 10, 11, 12**

**Credit: one**

**Corequisite: Student must be concurrently enrolled in a Marketing or EFE course.**

#### **MARKETING COOPERATIVE INTERNSHIP (CO-OP) (819921)**

**Grades: 10, 11, 12**

**Credit: two**

**Corequisite: Student must be concurrently enrolled in a Marketing or EFE course.**

The Marketing Cooperative Internship (Co-op) option enhances classroom instruction by providing practical work experience that is relevant to students' career goals. Students enrolled in Co-op attend at least one marketing or EFE class and work a minimum of 720 hours (20 hours per week) in an approved, supervised marketing-related, part-time job for two credits.

#### **CLASSROOM-ON-THE-MALL: FASHION MARKETING 2 (814523)**

**Grades: 11, 12**

**Credit: one**

**Prerequisite: Marketing 1 (812000) or Fashion Marketing 1 (814000) (Fair Oaks Mall-transportation may be provided)**

This specialized program enables students to learn business organization as well as operation skills and techniques in a realistic business setting. Classes are held at the Fair Oaks Center shopping mall. Traditional classroom instruction in marketing, merchandising, and management is enhanced by the opportunity for students to meet and work with professionals in the mall businesses. This course provides an in-depth study of merchandising techniques, fashion trends, fashion promotion, and management skills. Students attend their base schools for regular classes and then travel to Fair Oaks Center shopping mall for both classroom instruction and related on-the-job training. The Holiday Gift Wrap Center at Fair Oaks Mall offers additional opportunities for real-life entrepreneurial experiences. Due to the unique structure of this program, excellent attendance is mandatory. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

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

**CLASSROOM-ON-THE-MALL: MARKETING MANAGEMENT (813223)**

**Grades: 11, 12** **Credit: one**  
**(Fair Oaks Mall and Tyson's Corner Center-transportation may be provided)**

This specialized program enables students to learn business organization as well as operation skills and techniques in a realistic business setting. Classes are held in the Fair Oaks and Tyson's Corner Center shopping malls. Traditional classroom instruction in marketing, merchandising, fashion and management is enhanced by the opportunity for students to meet and work with professionals in the mall businesses. Students will develop critical-thinking and decision-making skills through the application of marketing principles to small and large businesses, nonprofit organizations, service industries, and other institutions or associations that make products or provide services. Students attend their base schools for regular classes and then travel to Fair Oaks or Tyson's Corner Center shopping malls for both classroom instruction and related on-the-job training. The Holiday Gift Wrap Center at Fair Oaks Mall offers additional opportunities for real-life entrepreneurial experiences. Due to the unique structure of this program, excellent attendance is mandatory. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

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

**ENTREPRENEURSHIP 1 (909326)**

**Grades: 11, 12** **Credit: one**  
**(Marshall and Chantilly Academies - transportation may be provided)**

Entrepreneurship provides students opportunities for learning small business ownership skills. Students will experience the process of developing, financing, and marketing a new product or service through an interactive curriculum. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. Field trips, guest speakers, and DECA competitive events are used to enhance the course work. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. Students have a dual enrollment option with Northern Virginia Community College.

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

**ENTREPRENEURSHIP 2 (909416)**

**Grades: 12** **Credit: one**  
**Prerequisite: Entrepreneurship 1 (909326)**  
**(Marshall and Chantilly Academies - transportation may be provided)**

Entrepreneurship 2 is an advanced course enabling students to further investigate and prepare for owning and operating a small business. Students must have successfully completed Entrepreneurship 1 (Course Code 909326) in order to participate in this class. Students enrolled in this class are encouraged to pursue the business developed in Entrepreneurship 1. The curriculum provides an in-depth study of business ownership. Students will develop a deeper understanding of the role of marketing and finance in their business success in order to implement their Business Plan. Classroom instruction will be supplemented with industry guest speakers, field experiences, and the cocurricular student organization DECA. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing

supervision throughout the school year. Students have a dual enrollment option with Northern Virginia Community College.

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

**INTRODUCTION TO HOTEL MARKETING (816026)**

**Grades: 9, 10, 11, 12** **Credit: one**  
**(Edison and Marshall Academies-transportation may be provided)**

Hotel Marketing 1 actively investigates careers in the hospitality and tourism career cluster including hotel and restaurant management, event and wedding planning, tourism, resort and golf course management, and the cruise ship industry. Students become familiar with concepts in marketing, convention, banquet and meeting services, catering services and event planning, venue management, guest services and retention, food and beverage operation, travel and transportation, and social and internet marketing. The Hotel Marketing programs are administered through Edison and Marshall Academies. Students are active members of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. Program activities include: field trips, guest speakers, DECA competitive events, and projects. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. The one-credit Hotel Marketing course is offered at Edison and Marshall Academies and selected high schools. For more information, visit the academy web site.

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

**HOTEL MARKETING 1 (816027)**

**Grades: 9, 10, 11, 12** **Credit: two**  
**(Edison and Marshall Academies - transportation may be provided)**

Hotel Marketing 1 actively investigates careers in the hospitality and tourism career cluster including hotel and restaurant management, event and wedding planning, tourism, resort and golf course management and the cruise ship industry. Students become familiar with concepts in marketing, convention, banquet and meeting services, catering services and event planning, venue management, guest services and retention, food and beverage operation, travel and transportation, and social and internet marketing. In the two credit option, students will have the opportunity to attend classes at participating hotels. Students are required to wear uniforms and follow the hotel dress code. Students are active members of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. Program activities include: field trips, guest speakers, DECA competitive events, and projects. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. For more information, visit the academy web site.

**Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. Students successfully completing this course may be eligible for articulated credit with approved colleges or universities.**

**HOTEL MARKETING 2 (816227)****Grades: 12****Credit: two****Prerequisite: Hospitality Marketing 1 (816026 or 816027) (Chantilly, Edison, and Marshall Academies - transportation may be provided)**

This advanced course enables students to continue to develop and grow their skills in the hospitality industry. Students will intern in a hotel, work with hotel staff and guests to develop resume-building skills in a variety of departments. Three career clusters will be explored: Business Management & Administration, Marketing, and Hospitality & Tourism. Concentration of course work and internships will be in marketing techniques, supervisory skills, management reporting, overall operations and cost controls, specific department operations, and professional development. While attending classes at participating hotels, students are required to wear uniforms and follow the hotel dress code. While enrolled in the course, the student is an active member of DECA. DECA prepares emerging leaders and entrepreneurs in marketing, finance, hospitality and management in high schools and colleges around the globe. Field trips, guest speakers, and DECA competitive events are used to enhance the course work. The cooperative education (Marketing Cooperative Internship) method is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. The program is offered at Marshall, Chantilly and Edison Academies. For more information, visit the academy web site.

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

**MATHEMATICS****ALGEBRA 1 (313000)****Grades: 9, 10, 11****Credit: one****Prerequisite: Middle School Mathematics**

This course extends students' knowledge and understanding of the real number system and its properties through the study of variables, expressions, equations, inequalities, and analysis of data derived from real-world phenomena. Emphasis is placed on making connections in algebra to geometry and statistics. Calculator and computer technologies will be used as tools wherever appropriate. Use of a graphing calculator is considered essential to provide a graphical and numerical approach to topics in addition to a symbolic approach. Topics include linear equations and inequalities, systems of linear equations, relations, functions, polynomials, and statistics.

**GEOMETRY (314300)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Algebra 1**

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

**GEOMETRY HONORS (314336)****Grades: 9, 10****Credit: one/weighted +.5****Prerequisite: Algebra 1**

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.

**ALGEBRA 2 (313500)****Grades: 10, 11, 12****Credit: one****Prerequisite: Algebra 1 and Geometry**

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

**ALGEBRA 2 HONORS (313536)****Grades: 9, 10, 11****Credit: one/weighted +.5****Prerequisite: Algebra 1 and Geometry**

The depth and level of understanding expected in Algebra 2 Honors is beyond the scope of Algebra 2. Students are expected not only to master algebraic mechanics but also to understand the underlying theory and to apply the concepts to real-world situations in a meaningful way. A thorough treatment of advanced algebraic concepts is provided through the study of functions, polynomials, rational expressions, complex numbers, matrices, exponential and logarithmic equations, infinite geometric sequences and series, permutations and combinations, data analysis, and selected topics in discrete mathematics. Emphasis is on modeling, logic, and interpretation of results. A transformational approach to graphing is used with families of related graphs. Numerical, graphical, and algebraic solutions are considered for all problems, as applicable. Graphing utilities, especially graphing calculators, are integral to the course.

**PRECALCULUS WITH TRIGONOMETRY (316000)****Grades: 10, 11, 12****Credit: one****Prerequisite: Geometry and Algebra 2**

Precalculus with Trigonometry includes all the topics of Trigonometry (3150) and a thorough treatment of functions through the study of polynomials, rational functions, logarithmic, exponential, and inverse functions. Topics include continuity, maximum and minimum points, an intuitive approach to limits, and rates of change. A transformational approach to graphing is used with families of related graphs. Numerical, graphical, and algebraic solutions are considered for all problems as applicable. Emphasis will be placed on problem solving techniques. Graphing utilities, especially graphing calculators, are integral to the course.

**PROBABILITY AND STATISTICS Year Course (319062)****Grades: 11, 12****Credit: one****Prerequisite: Geometry and Algebra 2**

Probability and Statistics is an activity-based introduction to statistics that emphasizes working with data, graphs, and statistical ideas including the use of statistical software. Students are expected to develop and present professional quality statistical analyses. Course content includes theory of probability, description of statistical measurements, sampling and experimental design, probability distributions, and statistical inference.

**TRIGONOMETRY SEMESTER COURSE (315032)****Grades: 11, 12****Credit: one-half****Prerequisite: Geometry and Algebra 2**

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

**DISCRETE MATHEMATICS (315432)****Grades: 11, 12****Credit: one-half****Prerequisite: Geometry and Algebra 2**

Discrete mathematics requires problem-solving strategies be applied to real-world application, develops verbal and written skills in the process of problem-solving, and promotes mathematical connections across disciplines. Course content includes management science, the mathematics of apportionment, matrix operations and applications, recursion, and discrete applications in the natural and social world. The course also includes theory of probability, description of statistical measurements, probability distributions, and statistical inference.

**IB MATHEMATICS STUDIES SL (319608)****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: Precalculus with Trigonometry or equivalent**

The content of this course includes a study of functions, algebraic geometry, trigonometry, probability and statistics, sets and logic, financial mathematics, introductory differential calculus, and mathematical applications in the natural world. All students in this course must complete a project. Students are required to take the standard level exam.

**IB MATHEMATICS SL I (316308)****Grades: 10, 11****Credit: one/weighted +.5****Prerequisite: Geometry and Algebra 2 (or Algebra 2/Trigonometry)**

This course begins with the study of polynomial, rational, logarithmic, exponential, trigonometric, and inverse functions and their applications. Sequences and series are investigated to provide a foundation for limits and continuity. The course includes the study of vectors, matrices and differential calculus and expands on topics in trigonometry. Students will be required to begin a portfolio of problems for the Internal Assessment. IB Mathematics SL I together with IB Mathematics SL II prepares students to take the standard level exam.

**IB MATHEMATICS SL II (319508)****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: IB Mathematics SL I or Precalculus with Trigonometry Honors**

This course concludes the study of the concepts introduced in IB Mathematics SL I. The course includes the study of differential and integral calculus of functions of a single variable with applications. The course reemphasizes and expands upon topics in vectors and matrices introduced in IB Mathematics SL I. The course also includes the study of the theory and application of probability, random variables, and both descriptive and inferential statistics. Students are required to complete a portfolio of problems for the Internal Assessment. Students are required to take the standard level exam.

**IB MATHEMATICS HL I (317709)****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: Algebra 2/Trigonometry or Precalculus with Trigonometry Honors or equivalent**

This is the first year of a two-year intensive college-level study of mathematics. Course content includes the study of precalculus topics, algebraic and transcendental functions and their inverses, matrices, three dimensional vectors and differential calculus. Students will be required to begin a portfolio of problems for the Internal Assessment. IB Mathematics HL I together with IB Mathematics HL II prepares students for the higher level exam.

**IB MATHEMATICS HL II (317009)****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: IB Mathematics HL I**

This is the second year of a two-year intensive college level study of mathematics. Course content includes integral calculus, the study of the theory and application of probability, random variables, both descriptive and inferential statistics, three-dimensional vectors, infinite series and differential equations. Students are required to complete a portfolio of problems for the Internal Assessment. IB Mathematics HL I together with IB Mathematics HL II prepares students for the higher level exam. Students are required to take the higher level exam.

**MULTIVARIABLE CALCULUS (Semester) (317860)****Grades: 11, 12****Credit: one-half/weighted +.5****Prerequisite: AP Calculus BC or IB Mathematics HL II**

A third semester college-level course, Multivariable calculus is the calculus of three dimensions and includes the study of partial differentiation, multiple integrals, and line integrals. This course will receive a weighted grade and may be taken for college credit.

**MATRIX ALGEBRA (Semester) (319800)****Grades: 11, 12****Credit: one-half/weighted +.5****Prerequisite: AP Calculus AB or AP Calculus BC or IB Mathematics HL II**

This college-level course includes the study of systems of linear equations, vector spaces, linear dependence, linear transformations and matrix representation, orthogonal reduction, determinants, eigenvectors and eigenvalues, and a variety of applications. This course will receive a weighted grade and may be taken for college credit.

**COMPUTER SCIENCE (318400)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Algebra 1 and Geometry**

Students develop detailed knowledge of the fundamental structure of a computer system, with emphasis on problem solving and structured programming. Skills in defining, writing, and running programs on a computer are developed through an individual approach that allows the student to work with both mathematical and non-mathematical problems. Java will be the major programming language.

**IB COMPUTER SCIENCE SL (318508)****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: Computer Science or equivalent**

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

**IB COMPUTER SCIENCE HL (318509)****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: IB Computer Science SL**

This is the second year of a two-year course sequence. This course requires applications of concepts taught in IB Computer Science SL. The content of this course includes computer mathematics and logic, advanced data structures and algorithms, further system fundamentals, system life cycle, and file organization. The understanding of a case study will be included. Students will complete an in-depth project that demonstrates mastery of all High Level required aspects. Students are required to take the High Level exam.

**ENGINEERING MATHEMATICS (316326)****Grades: 10, 11, 12****Credit: one****Prerequisite: Algebra 2****Corequisite: Precalculus with Trigonometry (Chantilly Academy – transportation may be provided)**

The mathematics topics taught in this course are motivated through direct applications in engineering. Engineering Mathematics addresses salient mathematics topics actually used in the primary core engineering college courses; Basic Algebraic Manipulations; Trigonometry; 2-D Vectors; Complex Numbers; Sinusoids and Harmonic Signals; Systems of Equations and Matrices; Basics of Differentiation; Basics of Integration; Linear Differential Equations with Constant Coefficients. Course material is taught through hands-on physical experiments in the classroom and laboratory, and is thoroughly integrated with the engineering analysis software MATLAB. Students learn the interconnection between classroom theory, laboratory measurement and numerical representation of their engineering results.

## SCIENCE

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

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

**Credit: one**

In Biology 1, students engage in scientific inquiry through lab work as they explore biological processes. All class and laboratory activities focus on life processes that occur within organisms and cells as well as the characteristics of life including: reproduction, development, and adaptation to environment. Major topics of study include molecular biology, cells, genetics, organisms, evolution, and ecology. The course includes a unit on human life education that addresses the topics of human reproduction and human development. Parents have the option of withdrawing their child from any or all topics included in the state-mandated Family Life Education portion. Students opting out will be provided with alternative biology lessons. If dissections are a part of the laboratory experience, alternatives are available.

### **BIOLOGY 1 HONORS (431036)**

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

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

In Biology 1 Honors, students engage in scientific inquiry as they explore biological processes. All class activities and laboratory activities focus on life processes that occur within organisms and cells as well as the characteristics of life including: reproduction, development, and adaptation to environment. Major topics of study include molecular biology, cells, genetics, organisms, evolution, and ecology. In comparison to Biology 1, students will investigate some topics at a deeper level including biotechnology, health, and environmental issues. Students will be involved in an externally-moderated experimental/research project, either independently or in teams. The course includes a unit on human life education that addresses the topics of human reproduction and human development. Parents have the option of withdrawing their child from any or all topics included in the state-mandated Family Life Education portion. Students opting out will be provided with alternative biology lessons. If dissections are a part of the laboratory experience, alternatives are available.

### **IB BIOLOGY SL (439008)**

**Grades: 11, 12**

**Credit: one/weighted +1.0**

**Prerequisite: Biology 1 and Chemistry 1**

IB Biology SL covers the core standard level topics of the IB Biology program. During this course, students will study such topics as cell structure; nucleic acids and proteins; cellular respiration and photosynthesis; genetics; human reproduction; defense against infectious disease; classification and diversity; nerves, muscles, and movement; and plant science. Participation in an interdisciplinary science research (Group 4) project is required. Laboratory investigations form a major component of the course, and all students must maintain a portfolio of laboratory work that is presented to the IB examiners. If dissections are part of the laboratory experience, alternatives are available. IB Biology I SL prepares students for IB's standard level exam.

### **IB BIOLOGY I (438008)**

**Grades: 11**

**Credit: one/weighted +1.0**

**Prerequisite: Chemistry 1**

IB Biology I is the first year of a two-year sequence wherein students study biology in depth. During this course, students will study topics such as cell structure; nucleic acids and proteins; cellular respiration and photosynthesis; genetics; human reproduction; defense against infectious disease; classification and diversity; nerves, muscles, and movement; and plant science. Participation in an interdisciplinary science research (Group 4) project is required. Laboratory investigations form a major component of the course, and all students must maintain a portfolio of laboratory work that is presented to the IB examiners. If dissections are part of the laboratory experience, alternatives are available. IB Biology I together with IB Biology II will prepare students for the higher level exam.

### **IB BIOLOGY HL II (439009)**

**Grades: 12**

**Credit: one/weighted +1.0**

**Prerequisite: IB Biology I**

IB Biology II is the second year of a two-year sequence wherein students study biology in depth. Students continue the higher level topics on the cell; nucleic acids and proteins; cell respiration and photosynthesis; genetics;

human reproduction; defense against infectious disease; classification and diversity; nerves, muscles, and movement; and plant science. In addition, students study higher level options that may include evolution; neurobiology and behavior; applied plant and animal science; ecology and conservation; microbes and biotechnology; or human physiology. Participation in an interdisciplinary science research (Group 4) project is required (either in IB Biology I or in this class). Laboratory investigations form a major component of the course, and all students must maintain a portfolio of laboratory work that is presented to the IB examiners. If dissections are part of the laboratory experience, alternatives are available. Students are required to take the IB Biology higher level exam.

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

**Grades: 10, 11, 12**

**Credit: one**

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

Chemistry I provides students the opportunity to develop their critical thinking skills as they acquire a better understanding of the chemical nature of our world. Students investigate the composition, properties, and reactions of matter. The approach is inductive, mathematical, and conceptual. Laboratory experiments and subsequent classroom analysis are integral components of the course.

### **IB CHEMISTRY I (441007)**

**Grades: 10, 11, 12**

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

**Prerequisite: Biology 1, Algebra 1**

**Corequisite: Algebra 2**

This course provides a general introduction to chemistry. The topics of study include atomic structure, ionic and covalent compounds, chemical equations, stoichiometry, gases, solutions, and acids and bases. The history and nature of science are included throughout the course. Students learn to design experiments, to collect data, and to analyze data using graphical and statistical methods. They design and conduct experimental research projects. Participation in an interdisciplinary science research (Group 4) project is required. Laboratory investigations form a major component of the course, and all students must maintain a portfolio of laboratory work that is presented to the IB examiners. IB Chemistry I meets the course requirements of Chemistry 1 Honors.

### **IB CHEMISTRY II SL (449008)**

**Grades: 11, 12**

**Credit: one/weighted +1.0**

**Prerequisite: IB Chemistry I**

This second level course provides students with hands-on laboratory experiences and a more comprehensive study of chemistry. Students study atomic theory, structure and bonding, energetics, equilibrium kinetics, periodicity, and carbon chemistry. A more thorough study is made of topics in organic chemistry than is traditionally done in high school chemistry. Participation in an interdisciplinary science research (Group 4) project is required. Laboratory investigations form a major component of the course, and all students must maintain a portfolio of laboratory work that is presented to the IB examiners. Students are required to take the IB Chemistry standard level exam.

### **IB CHEMISTRY II HL (449009)**

**Grades: 12**

**Credit: one/weighted +1.0**

**Prerequisite: IB Chemistry I**

The college level course provides students with hands-on laboratory experiences and a more comprehensive study of chemistry. Students study atomic theory, structure and bonding, energetics, equilibrium kinetics, periodicity, and carbon chemistry. A more thorough study is made of topics in organic chemistry than is traditionally done in high school chemistry. Students are required to complete a Group 4 science research (Group 4) project. Students are required to take the IB Chemistry higher level exam.

### **PHYSICS 1 (451000)**

**Grades: 11, 12**

**Credit: one**

**Prerequisite: Two laboratory science courses**

Physics 1 introduces the central concepts of physics, including kinematics, dynamics, the conservation laws (mass, energy, and momentum), electricity, magnetism, and waves. This laboratory-centered course utilizes an approach that is inductive and mathematical as well as conceptual.

**ACTIVE PHYSICS (451050)****Grades: 10, 11, 12****Credit: one****Prerequisite: One laboratory science course**

Active Physics is a physics course for students who have not yet passed Algebra I. This course has a strong emphasis on experimentation. The units of study focus on predictions and real-world applications such as sports, medicine, transportation, home, and communication. The physics content is presented in a problem solving manner to strengthen both science and mathematics content knowledge and skills.

**IB PHYSICS I (451007)****Grades: 10, 11****Credit: one/weighted +.5****Prerequisite: Two laboratory science courses****Corequisite: Algebra 2 or Precalculus with Trigonometry or IB Mathematics I**

IB Physics I topics include mechanics, electricity, magnetism, waves, thermodynamics, atomic physics, climate change, and alternative energy sources. Laboratory investigations form a major component of the course, and all students must maintain a portfolio of laboratory work that is presented to the IB examiners. At the end of the first year, students may choose to continue with either standard or higher level IB physics studies, according to the student's and the local school's offerings. This course is the first in a two-year sequence designed to prepare students for either the IB standard level or higher level examination in physics. Students will be involved in an externally-moderated experimental/research project. IB Physics I meets the course requirements of Physics I Honors.

**IB PHYSICS II SL (459008)****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: IB Physics I****Corequisite: IB Mathematics SL or IB Mathematics HL**

The topics: mechanics, electricity and magnetism, waves, thermodynamics, climate, and atomic physics which are addressed in IB Physics I are revisited in more depth and breadth. Additionally, students will study two topics among sight and wave phenomena, quantum and nuclear physics, digital technology, relativity and particle physics, astrophysics, communications, and electromagnetic waves. Students are required to complete an interdisciplinary science research (Group 4) project. Students are required to take the IB Physics standard level exam.

**IB PHYSICS II HL (459009)****Grades: 12****Credit: one/weighted +1.0****Prerequisite: IB Physics I****Corequisite: IB Mathematics SL or IB Mathematics HL**

The topics--mechanics, electricity and magnetism, waves, thermodynamics, climate, and atomic physics--addressed in IB Physics I are revisited in more depth and breadth. Additionally, students will study quantum physics, nuclear physics, digital technology and two topics among astrophysics, communications, electromagnetic waves, relativity, medical physics, and particle physics. Students are required to complete an interdisciplinary science research (Group 4) project and are required to take the IB Physics higher level exam.

**GEOSYSTEMS (422000)****Grades: 11, 12****Credit: one****Prerequisite: Biology 1 and Chemistry 1**

Geosystems utilizes content from geology, astronomy, oceanography, and meteorology to investigate, both qualitatively and quantitatively, the major earth systems (atmosphere, hydrosphere, lithosphere, biosphere) and their dynamic inter-relationships. Students explore concepts with the same tools professional scientists use including computers, Geographic Information Systems (GIS), Global Positioning System (GPS), image processing software, and probeware.

**GEOSYSTEMS HONORS (422036)****Grades: 11, 12****Credit: one/weighted +.5****Prerequisite: Biology 1 and Chemistry 1**

Geosystems Honors utilizes content from geology, astronomy, oceanography, and meteorology to investigate, both qualitatively and quantitatively, the major earth systems (atmosphere, hydrosphere, lithosphere, biosphere) and their dynamic inter-relationships. Students explore concepts with the same tools professional scientists use including computers, Geographic Information Systems (GIS), Global Positioning System (GPS), image processing software, and probeware. Students will

investigate some topics at a deep level and will participate in an externally-moderated experimental/research project either independently or in teams.

**GEOSPATIAL ANALYSIS (422067)****Grades: 12****Credit: one****Prerequisite: Three laboratory science classes**

Schools must contact the science office in Instructional Services before offering this course. This course is offered in partnership with James Madison University. Students spend the year completing a community-based research project that involves spatial reasoning and decision-making. In the process, students develop critical thinking, spatial reasoning, communication, and collaboration skills, while addressing a problem that is important to their community. A final presentation of their project to local community leaders and to faculty at their home school and JMU is required. Students can earn JMU credit at a reduced fee. This course does not count as one of the credits for the standard diploma, but it can count as a fourth science credit for the advanced diploma.

**ENGINEERING PHYSICS 1 (451026)****Grades: 10, 11, 12****Credit: one****Prerequisite: One year of laboratory science and Algebra 1 (313000)****(Chantilly Academy - transportation may be provided)**

This course may be used to satisfy one credit toward the science, elective, fine arts or career and technical education requirement of the standard or advanced studies diploma. This course is the first year of the two-year college preparatory, laboratory-based Engineering Physics sequence; it is designed for students anticipating careers in the physical sciences, engineering, and technology. The course begins with a review of mathematical and basic scientific procedures. Course curriculum topics include universal concepts, inquiry processes, forcing functions, movement functions, time dependence functions, resistance functions, energy functions, transforming functions, unifying forces, unifying laws, and space-time extremes. These topics are addressed in the context of mechanical, fluid, electrical, thermal, and aerospace systems. Students complete approximately 40 hours of active inquiry and participation in modern technology competitions, and are introduced to the cycle of rapid prototyping design, build, test, and modify. These form the core of modern product development. The course may include curriculum-related field trips, and college-oriented information seminars. For more information, visit the academy web site.

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

**ENGINEERING PHYSICS 2 (452026)****Grades: 11, 12****Credit: one****Prerequisite: Engineering Physics 1(451026) or Physics 1 (451000).****Corequisite: Algebra Option: Co-enrollment in or completion of Algebra 2 (313500); Calculus Option: Co-enrollment in a calculus-based mathematics course (316308, 316508, or equivalent)****(Chantilly Academy - transportation may be provided)**

This course may be used to satisfy one credit toward the science, elective, fine arts or career and technical education requirement of the standard or advanced studies diploma. The course is the second year of the two-year college preparatory, laboratory-based Engineering Physics sequence; and is designed for students anticipating careers in the physical sciences, engineering, technology, medicine, or other research, and experimentation disciplines. The course begins with a review of mathematical and basic physics and engineering concepts to assure that all students are brought to a consistent level of preparedness. Curriculum topics include universal concepts, inquiry processes, fundamental constants, special relativity, rotational dynamics, waves and vibrations, energy conversion, transducers, electromagnetic radiation, optical measurements, and exponential behavior. These topics are addressed in the context of mechanical, fluid, electrical, thermal, and aerospace systems. Students complete approximately 50 hours of laboratory experimentation and participation in advanced technology competitions. The course may include curriculum-related field trips and college-oriented information seminars. Individual academies apply the curriculum in the manner that best fits local facilities and opportunities. Participating students may compete for a limited number of industry internships. For more information, visit the academy web site.

**Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully**

completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922. Students successfully completing this course may be eligible for articulated credit with approved colleges or universities.

## SOCIAL STUDIES

### WORLD HISTORY AND GEOGRAPHY 1 (221900)

Grades: 9

Credit: one

This is the first of a two-year, chronologically organized study of world history and geography. In this first year, students study the world from ancient times to 1500. The course highlights the relationship between the geography and history of Europe, Africa, Asia, and Latin America. Students refine and expand critical thinking skills, practice decision making and problem solving, and formulate questions to guide research. World History and Geography 1 is required for graduation.

### WORLD HISTORY AND GEOGRAPHY 2 (222100)

Grades: 10

Credit: one

This is the second of a two-year, chronologically organized study of world history and geography. In this second year, students study the world from 1500 through the contemporary era. The course weaves together the skills and content of both history and geography so that students may learn how history and geography affect each other and therefore gain a more complete understanding of the world around them, including North and South America, Europe, Asia, and Africa. Students continue to refine and expand critical thinking skills, practice decision making and problem solving, and formulate questions to guide research. World History and Geography 2 is required for graduation.

### WORLD HISTORY AND GEOGRAPHY 2 HONORS (222136)

\*Students who elect to take this course should be committed to a 4 year IB plan in Social Studies.

Grades: 9,10

Credit: one/weighted +.5

This course is a chronologically organized study of world history and geography with an emphasis on the modern era devoted to the geography and history of Europe, Africa, Asia and the Americas from 1500 to the present. This course is intended for students who wish to pursue an IB diploma. Students examine the relationship among social, economic and geopolitical developments across time and place. They use the processes of conceptual and critical thinking to analyze historical and contemporary issues. Students engage in intensive analytical reading, writing and discussion. This is the first of a four-year history and social science for IB history. Honors World History and Geography 2 meets the course requirements of World History and Geography 2. This course has an end-of-course Standards of Learning test for World History and Geography 2.

### VIRGINIA AND UNITED STATES HISTORY (236000)

Grades: 11

Credit: one

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

### VIRGINIA AND UNITED STATES HISTORY HONORS (236036)

Grades: 11 Credit: one/weighted +.5

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

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

### VIRGINIA AND UNITED STATES GOVERNMENT (244000)

Grades: 12

Credit: one

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

### VIRGINIA AND UNITED STATES GOVERNMENT

HONORS (244036)

Grades: 10,12 Credit: one/weighted +.5

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

### ADVANCED PLACEMENT GOVERNMENT (244504)

Grades: 10,12

Credit: one/weighted +1.0

In this study of American government, students interpret national, state, and local government and politics through an examination of both general concepts used to interpret U.S. politics and the analysis of specific examples. This course prepares students to take the Advanced Placement examination for which college credit and/or placement may be given if a qualifying score is made. Completion of this course fulfills the graduation requirement for one credit in Virginia and United States Government.

### IB HISTORY I: HISTORY OF THE AMERICAS (236009)

Grades: 11

Credit: one/weighted +1.0

Students study political, social, economic and cultural history of the nations of the Western Hemisphere with an emphasis placed on the history of the United States and are introduced to history as a discipline, the nature and variety of historical sources, and the historian's methods. The historical narrative begins with the fifteenth century encounter by Europeans with American cultures and concludes with the entrance of the United States upon the world stage in the early years of the twentieth century. Topics for study include encounter and exchange, colonial institutions, collapse of imperial regimes, evolution of nineteenth century institutions, and the Americas in the industrial age. Students are expected to perceive past events and issues as they were experienced by people at the time, to acquire a comprehension both of diverse cultures and of shared humanity, and to understand the significance of the past to their own lives. IB History I together with IB History II prepares students to take the higher level exam.

### IB HISTORY II: TOPICS IN 20TH CENTURY WORLD HISTORY SL (236108)

### IB HISTORY II: TOPICS IN 20TH CENTURY WORLD HISTORY HL (236109)

Grades: 12

Credit: one/weighted +1.0

Prerequisite: IB History I: History of the Americas

This course offers students an opportunity to study selected twentieth century topics in World History in an international dimension. Case studies of the major events and issues of the twentieth century are studied. Students read widely, acquiring the skills to evaluate, to interpret, and to use source material critically as historical evidence. These skills are specifically examined in the IB final. Additionally, students are expected to demonstrate an awareness of historical perspective and a consistently high level of critical analysis and handling of evidence in expository writing. A significant part of the final grade is an independent research project. Students are required to take either the standard level or the higher level exam. IB History II, together with IB History I, prepares students to take the higher level exam.

**PSYCHOLOGY (290032)****Grades: 11, 12****Credit: one-half**

In this course, students examine patterns and variations of human behavior and the process of individual human development. They identify and examine the emotional, intellectual, and physical factors which influence the development of the individual human being. Students distinguish among the major schools and systems of psychology and methods of investigation.

**SOCIOLOGY (250032)****Grades: 10, 11, 12****Credit: one-half**

In this course, students study the ways people behave in groups. They examine ways that groups function in society and analyze these functions. Students develop hypotheses about people in groups and gather information to test these hypotheses.

**POLITICAL SCIENCE (245100)****Grades: 12****Credit: one and a half****Prerequisite: Virginia and United States Government**

During the first semester of this course, students examine theories and practices of government. During the second semester, students are interns for 8-10 hours per week in government and government-related offices. In addition they participate in class-based seminar discussions. The first semester offers one-half credit and is a prerequisite for second semester. Second semester is optional. The full two-semester course offers one and one-half credits.

## TECHNOLOGY AND ENGINEERING EDUCATION

**BASIC TECHNICAL DRAWING (843500)****Grades: 9, 10, 11, 12****Credit: one**

Students develop basic skills in drawing and study careers related to drafting through the use of Computer-Assisted Drafting (CAD) and other software applications to gain an understanding of the technical drawing processes. This course is recommended for students interested in technical drawing, interior design, fashion design, decorating, construction, architecture, or engineering careers.

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

**ADVANCED DRAWING (843800)****Grades: 11, 12****Credit: one****Prerequisite: Engineering Drawing (843600) or Architectural Drawing (843700)**

Students use a graphic language for product design and technical illustration. They increase their understanding of drawing techniques learned in the prerequisite courses. They research design-related fields while identifying the role of advanced drawing and design in manufacturing and construction industry processes. They apply the design process, analyze design solutions, reverse engineer products, create 3-D solid models using Computer-Assisted Drafting (CAD), construct physical models, and create multimedia presentations of finished designs. They complete a work portfolio based on a chosen graphic project.

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

**ARCHITECTURAL DRAWING (843700)****Grades: 10, 11, 12****Credit: one****Prerequisite: Basic Technical Drawing (843500)**

Students study the history of architecture, examine various construction techniques, use Computer-Assisted Drafting (CAD) equipment, and design elements of a house. They develop working drawings and specifications as well as a scale model. Students interested in architecture or related careers will benefit from this course.

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

**DESIGN AND TECHNOLOGY (840300)****Grades: 9, 10, 11, 12****Credit: one**

Design and Technology is designed as a foundation high school course in technology education. Students use core technology knowledge to solve open-ended problems and create systems. Laboratory activities engage students in the design process through projects that integrate mathematics, science, and other core subjects. Working in groups, students build and control systems in the development of technology.

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

**ENGINEERING DRAWING (843600)****Grades: 10, 11, 12****Credit: one****Prerequisite: Basic Technical Drawing (843500)**

Students gain an understanding of technical drawing careers in modern industry. The course includes engineering-drafting problems, use of Computer-Assisted Drafting (CAD) equipment, and drafting skills and techniques. Students use a handbook of standards and specifications along with other resource materials. Students interested in engineering or related careers will benefit from this course.

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

**AEROSPACE SCIENCE 1 (848726)****Grades: 11, 12****Credit: one****Prerequisite: Recommended Prerequisite Engineering (849000) (Marshall Academy - transportation may be provided)**

Aerospace Science 1 is a course that allows students to study aerodynamic principles, aviation history, electrical and mechanical systems, instrumentation, flight operations, safety and security, air traffic control, airport design, economic impacts, rocketry, and satellite and space operations. Numerous lab activities include computer simulators, and model aircraft design and testing. Leading national institutions and commercial businesses provide valuable resources and career experiences to participating students. For more information, visit the academy web site.

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

**AEROSPACE SCIENCE 2 (848826)****Grades: 11, 12****Credit: one****Prerequisite: Aerospace Science 1 (848726)  
(Marshall Academy - transportation may be provided)**

This course provides students with the opportunity to increase their depth and understanding of aerospace principles. Students may be involved with internship opportunities in a variety of areas including air traffic control, airport operations, and fixed-based operator's management. Upon successful completion of the course, students will be endorsed to take the written portion of the private pilot's examination. This is the first step to earning a private pilot's license. In addition, students will be exposed to a variety of guest speakers who will provide firsthand knowledge of the aerospace industry as well as postsecondary and career education opportunities. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement for the standard or modified standard diploma. For more information, visit the academy web site.

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

**ELECTRONICS 1 (841600)****Grades: 9, 10, 11, 12****Credit: one**

Students explore career fields in electricity and electronics. The course includes information on electrical and electronic theory and applications, computer-aided instruction and circuit simulation, components, circuitry troubleshooting, use of test instruments and lab training devices, consumer information, and career opportunities. The course covers the fundamentals of basic electronics through complex AC and DC circuit theory. Students interested in engineering or related careers will benefit from the course.

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

**ELECTRONICS 2 (841200)****Grades: 10, 11, 12****Credit: one****Prerequisite: Electronics 1 (841600)**

Students learn theory and circuitry of more complex systems. Semiconductor, linear, and analog electronic circuits are explored. Students develop an advanced understanding of electrical theory, develop a measure of skill in the application of electrical theory as it applies to electronics circuit development, and learn safe practices for working with electricity and electronics.

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

**ELECTRONICS 3 (841300)****Grades: 11, 12****Credit: one****Prerequisite: Electronics 2 (841200)**

Students learn how computer circuits work by taking an in-depth and hands-on look into digital electronics and microprocessor theory and operation. Topics include: microprocessor architecture, computer logic, digital logic circuits, machine language programming, and microprocessor interfacing. Special topics include robotics and speech synthesis and advanced electronics systems.

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

**ENGINEERING PHYSICS 1 (451026)****Grades: 10, 11, 12****Credit: one****Prerequisite: One year of laboratory science and Algebra 1 (313000)  
(Chantilly Academy - transportation may be provided)**

This course may be used to satisfy one credit toward the science, elective, fine arts or career and technical education requirement of the standard or advanced studies diploma. This course is the first year of the two-year college preparatory, laboratory-based Engineering Physics sequence; it is designed for students anticipating careers in the physical sciences, engineering, and technology. The course begins with a review of mathematical and basic scientific procedures. Course curriculum topics include universal concepts, inquiry processes, forcing functions, movement functions, time dependence functions, resistance functions, energy functions, transforming functions, unifying forces, unifying laws, and space-time extremes. These topics are addressed in the context of mechanical, fluid, electrical, thermal, and aerospace systems. Students complete approximately 40 hours of active inquiry and participation in modern technology competitions, and are introduced to the cycle of rapid prototyping design, build, test, and modify. These form the core of modern product development. The course may include curriculum-related field trips, and college-oriented information seminars. For more information, visit the academy web site.

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

**ENGINEERING PHYSICS 2 (452026)****Grades: 11, 12****Credit: one**

**Prerequisite: Engineering Physics 1(451026) or Physics 1 (451000).  
Corequisite: Algebra Option: Co-enrollment in or completion of Algebra 2 (313500); Calculus Option: Co-enrollment in a calculus-based mathematics course (316308, 316508, or equivalent)  
(Chantilly Academy - transportation may be provided)**

This course may be used to satisfy one credit toward the science, elective, fine arts or career and technical education requirement of the standard or advanced studies diploma. The course is the second year of the two-year college preparatory, laboratory-based Engineering Physics sequence; and is designed for students anticipating careers in the physical sciences, engineering, technology, medicine, or other research, and experimentation disciplines. The course begins with a review of mathematical and basic physics and engineering concepts to assure that all students are brought to a consistent level of preparedness. Curriculum topics include universal concepts, inquiry processes, fundamental constants, special relativity, rotational dynamics, waves and vibrations, energy conversion, transducers, electromagnetic radiation, optical measurements, and exponential behavior. These topics are addressed in the context of mechanical, fluid, electrical, thermal, and aerospace systems. Students complete approximately 50 hours of laboratory experimentation and participation in advanced technology competitions. The course may include curriculum-related field trips and college-oriented information seminars. Individual academies apply the curriculum in the manner that best fits local facilities and opportunities. Participating students may compete for a limited number of industry internships. For more information, visit the academy web site.

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

**ENGINEERING SYSTEMS 1 (845126)****Grades: 10, 11, 12****Credit: one****Prerequisite: Basic Technical Drawing (843500) or Engineering Drawing (843600) or STEM Engineering (849000) or two years of a laboratory science.****(Chantilly Academy - transportation may be provided)**

Engineering Systems 1 is the first year of the two-year Engineering Systems sequence designed for students exploring careers in engineering and technology who seek to enter colleges with strong science and engineering programs. Students work in teams to apply basic engineering skills and learn the principles of introductory systems engineering as they plan, develop, and execute engineering projects. Mathematics, technical research and writing, electronics, and computer-aided design programs are used in the design and construction of mechanical, air, space and robotics system models, and system prototypes. Students engage in an intensive six-week engineering competitive system project selected for the course. The course may include curriculum-related field trips, and college-oriented information seminars. Individual academies apply the curriculum in the manner that best fits local facilities and opportunities. Participating students may compete for a limited number of industry internships. For more information, visit the academy web site.

**Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922. Students successfully completing this course may be eligible for articulated credit with approved colleges or universities.**

**ENGINEERING SYSTEMS 2 (845226)****Grades: 11, 12****Credit: one****Prerequisite: Engineering Systems 1 (845126)****(Chantilly Academy - transportation may be provided)**

Engineering Systems 2 is the second year of the two-year Engineering Systems sequence, and is designed for students anticipating careers in science, engineering and technology who seek to enter colleges with strong science and engineering programs. The Engineering Systems 2 curriculum is heavily oriented toward engineering techniques and major system projects which address the national need for advanced energy, transportation, and space systems. Development, maintenance, and retirement of systems are studied in depth. The use of robotics as an enabling technology for advanced systems is incorporated into the course as students engage in an intensive six-week robotics competition project selected for the course. The course may include curriculum-related field trips and college-oriented information seminars. Individual academies apply the curriculum in the manner that best fits local facilities and opportunities. Students may compete for a limited number of industry internships. For more information, visit the academy web site.

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

**GEOGRAPHIC INFORMATION SYSTEMS 1 (842326)****Grades: 11, 12****Credit: one****(Chantilly Academy - transportation may be provided)**

This course will introduce students to the theory, vocabulary and concepts behind these and other applications of GIS, while providing students the opportunity to develop basic skills to apply GIS in a variety of contexts. Students will receive instruction in geographic information systems, global positioning systems, remote sensing, digital imaging processing simulator, Geodesy, automated cartography, land surveying, and navigation. Fundamentally, these technologies will enable students to explore and analyze the natural and human-made world, from local to global and beyond. Students will use various tools, processes, and techniques to create, store, access, manipulate, and revise data to solve human challenges. These experiences will employ real-world spatial analysis models and guidelines for integrating, interpreting, analyzing, and synthesizing data. For more information, visit the academy web site.

**Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course in conjunction with another one credit course within the same program area will satisfy the sequential elective**

**requirement for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.**

**INDEPENDENT RESEARCH-ENGINEERING (845326)****Grades: 12****Credit: one****Prerequisite: Engineering Systems 1 (844726) and Engineering Systems 2 (843326)****(Chantilly - transportation may be provided)**

Independent Research-Engineering is a one-year program designed to provide a work-based learning and mentorship experience in engineering at a selected industry, center of higher education, or government organization. The project is a structured, school-coordinated arrangement requiring student preparation, which includes career awareness and exploration prior to the actual experience. Chantilly Academy only. For more information, visit the academy web site.

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

**RESEARCH AND DEVELOPMENT ENGINEERING (849100)****Grades: 11, 12****Credit: one****Prerequisite: Engineering (849000)**

This course emphasizes student knowledge and application of engineering problem-solving through research and development concepts. Students learn to work in collaborative engineering teams and solve group design projects. Students are challenged to solve problems using design, mathematics, computer simulations, scientific analysis, and oral and written skills. Engineering is studied with a focus on modeling, systems, optimization, technology-society interaction, design, and engineering ethics. Projects may be models, systems, or products that creatively solve an engineering problem.

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

**STEM ENGINEERING (849000)****(Formerly known as Engineering)****Grades: 10, 11, 12****Credit: one****Emphasis on Science, Technology, Engineering and Math (STEM) Initiative**

For students interested in engineering, this course builds a solid foundation to move forward in the Science, Technology, Engineering and Math (STEM) curriculum. Students are introduced conceptually and analytically to the primary concepts in the four classic engineering disciplines civil, mechanical, electrical and aerospace engineering. Students will explore and develop projects in these areas while working in real world collaborative teams. By applying STEM concepts to design problems students will dramatically improve their use of mathematics, computer simulations, scientific analysis, oral and written skills during this course. This course provides for orientation to the careers and challenges of engineering. Students are actively involved with high-tech devices, engineering graphics, and mathematics/scientific principles through problem-solving and critical thinking experiences. Students integrate mathematics, science, and technical writing with technology instruction to solve engineering-based problems.

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

## TRADE AND INDUSTRIAL

### AUTOMOTIVE SERVICING - South Lakes (871026)

Grades: 9, 10, 11, 12

Credit: one

Students enrolled in this course learn fundamental skills associated with engine tune-up, electrical diagnosis and repair, lubrication and cooling system diagnosis and repair, brake system diagnosis and repair, fuel system diagnosis and repair, suspension system diagnosis and repair, and routine maintenance of automobiles.

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

### AUTOMOTIVE TECHNOLOGY 1 – South Lakes (850624)

Grades: 11, 12

Credit: two

Students will study and define the eight major systems of the automobile, related tools and equipment, and the automotive industry. An emphasis will be placed on diagnosing systems, developing troubleshooting skills, and the safe use of laboratory equipment. Curriculum is developed from the National Automotive Technicians Education Foundation (NATEF) task lists. Major topics include engine performance, brakes, electrical and electronic systems, and suspension and steering systems. This course may be offered for college credit. In addition, students will be tested on NATEF criteria.

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

### AUTOMOTIVE TECHNOLOGY 2 – South Lakes (850724)

Grades: 11, 12

Credit: two

Students will perform technical operations using digital diagnostic equipment, hand scanners, multi-meters, and a computerized data information system during laboratory procedures that are defined by the National Automotive Technicians Education Foundation (NATEF). Major topics include engine performance, brakes, electrical and electronic systems, and suspension and steering systems. In addition, students will be tested on NATEF criteria. This course may be offered for college credit. As an option, many students will have an opportunity to participate in local internship experiences.

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

### AUTOMOTIVE COLLISION SERVICE 1 (867627)

Grades: 11, 12

Credit: two

(Chantilly, Edison, and Marshall Academies - transportation may be provided)

Students are introduced to skill sets derived from industry standards in the auto body repair and restoration industry. The curriculum and laboratory activities are defined by I-CAR and include panel repairs, painting, frame and uni-body construction, steering, suspension, detailing, and welding. In addition, students are exposed to the theoretical and practical aspects of this career. For more information, visit the academy web site.

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

### AUTOMOTIVE COLLISION SERVICE 2 (867727)

Grades: 11, 12

Credit: two

Prerequisite: Auto Collision Service 1 (867627)

(Chantilly, Edison, and Marshall Academies - transportation may be provided)

Students will refine existing skills and develop specific skills necessary to repair late-model damaged vehicles to their original condition. The curriculum and laboratory practices defined by I-CAR include the following: refinishing, metal working, welding, frame-strengthening systems, uni-body measuring principles, structural repair, steering, suspension, mechanical, and electrical repairs. As an option, many students will have an opportunity to participate in internship experiences. For more information, visit the academy web site.

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

### CARPENTRY 1 (860127)

Grades: 11, 12

Credit: two

(Chantilly Academy - transportation may be provided)

Students will have an opportunity to study and learn about a \$700 billion industry providing a variety of employment opportunities. An emphasis will be focused on construction safety, OSHA regulations, mathematics applications, and craft knowledge. In addition to a variety of hands-on experiences, students will be introduced to electricity, framing, plumbing, millwork, and problem solving activities related to the construction industry. Curriculum is developed by the National Association of Home Builders (NAHB). For more information, visit the academy web site.

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

### CARPENTRY 2 (860227)

Grades: 11, 12

Credit: two

Prerequisite: Carpentry 1 (860127)

(Chantilly Academy - transportation may be provided)

Students will receive advanced instruction and experiences in the areas of layout and design, framing, estimating, purchasing, planning, and installing. Topics will range from residential through commercial construction. An emphasis will be placed on entrepreneurship and construction site management using curriculum developed by the National Association of Home Builders (NAHB). Student internship experiences are an option for this course. For more information, visit the academy web site.

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

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

Grades: 11, 12

Credit: two

Spring Village Residential Construction Site (transportation may be provided)

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

**Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing this course will satisfy the sequential elective requirement**

for the standard or modified standard diploma. This course requires a student materials fee as listed in FCPS Notice 5922.

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

**Grades:** 11, 12 **Credit:** two  
**Prerequisite:** Construction Technologies 1  
**Spring Village Residential Construction Site (transportation may be provided)**

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

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

**COSMETOLOGY 1 (852727)**

**Grades:** 11, 12 **Credit:** two  
**(Transportation may be provided to Hayfield Secondary School, Chantilly, Edison and Marshall Academies)**

Students learn about the characteristics of hair, product selection, and basic elements that determine hair growth, health, and appearance. In addition to up-to-date skills in hair styling and cutting, permanent waving, coloring, scalp and facial treatment, and manicuring, students will begin licensure preparation as prescribed by the Virginia Board of Cosmetology.

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

**COSMETOLOGY 2 (852827)**

**Grades:** 11, 12 **Credit:** two  
**Prerequisite:** Cosmetology 1 (852727)  
**(Transportation may be provided to Hayfield Secondary School, Chantilly, Edison and Marshall Academies)**

Students use a laboratory setting for the study of skin, hair, nails and cosmetic chemistry. Through laboratory experiences, students will develop advanced skills and knowledge in all phases of salon industry. Students complete the required cosmetology competencies determined by the Virginia Board of Cosmetology in order to successfully pass the Virginia Cosmetology exam to qualify as a licensed cosmetologist. Students in this course will sit for the Virginia Cosmetology Licensing Exam provided they have a Social Security Number or a control number issued by the Virginia Department of Motor Vehicles as required by the Virginia Board of Cosmetology.

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

**COSMETOLOGY 3 (852927)**

**Grades:** 12 **Credit:** two  
**Prerequisite:** Cosmetology 2 (852827)  
**Corequisite:** Contact the instructor at the school site prior to registering any student for this course.  
**(Transportation may be provided to Hayfield Secondary School, Chantilly, Edison and Marshall Academies)**

Students will focus on management and supervisory skills in their area of concentration. Opportunities will be provided to enhance any skills and competencies not mastered in the second year of instruction. Student

internship experiences are an option for this course. For more information, visit the academy web site.

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

**CRIMINAL JUSTICE 1 (870226)**

**Grades:** 10, 11, 12 **Credit:** one  
**(Chantilly, Falls Church, Marshall, and West Potomac Academies - transportation may be provided.)**

This course is designed for students who are considering a career in criminal justice. The course prepares students for career opportunities within the criminal justice system as well as entrance into institutions of higher learning. Specific areas of training will be provided in criminal law and investigation, security training, communications, emergency response, crimes, search and seizures, arrests, crime prevention, court procedure, and police operations. The program is structured to give students a strong academic background with the skills and knowledge necessary to meet the needs of a career in any of the cited fields. In addition, experts from various agencies provide in-depth information and experiences. For more information, visit the academy web site.

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

**CRIMINAL JUSTICE 2 (870327)**

**Grades:** 11, 12 **Credit:** two  
**Prerequisite:** Criminal Justice 1  
**(Chantilly, Falls Church, Marshall, and West Potomac Academies - transportation may be provided.)**

This course is an in-depth study of crime in America, United States' courts in action, and law enforcement efforts to deal with crime. The course will look into victimization, due process, and Constitutional laws affecting law enforcement as well as a review of sentencing offenders, parole, prison rehabilitation, and corrections of the 1990s. Included will be a view of other employment careers in private and mechanical security systems as well as local, state, and federal law enforcement. A major component of level 2 will include the work-experience component, i.e., shadowing, mentorship, etc. For more information, visit the academy web site.

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

**ELECTRICAL CONSTRUCTION AND ENGINEERING 1 (853327)**

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

Laboratory work and academic studies include AC/DC circuit analysis, designing and construction switching circuits, fixture specifications and installations, computing and fabricating residential electrical services, and other wiring exercises as required by residential wiring systems. Theory and the national electric code are taught as they apply to the lesson topic. Students learn to install, relocate, troubleshoot, and repair copper twisted pair network cabling. This course may be offered for college credit. For more information, visit the academy web site.

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

**ELECTRICAL CONSTRUCTION AND ENGINEERING 2 (853427)**  
**Grades: 11, 12** **Credit: two**  
**Prerequisite: Electrical Construction and Engineering 1 (853327)**  
**(Edison Academy - transportation may be provided)**

Further study of electrical wiring and power distribution techniques is offered, including direct- and alternating-current machines, such as motors and generators, and magnetic controls and transformers in both single- and two- or three-phase systems. National Electrical Codes, as well as state and power company policies pertaining to electrical power distribution, are studied. Major appliance repair is also taught. Student internship experiences are an option for this course. For more information, visit the academy web site.

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

**HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION 1 (850327)**  
**Grades: 11, 12** **Credit: two**  
**(Edison Academy - transportation may be provided)**

Students learn how to install and maintain special environmental systems for people, products, and perishables essential to today's lifestyles. Through laboratory experiences, students will utilize digital meters, gauges, testing instruments, and specialized tools. These instruments will be used to control the environment in any enclosed area. For more information, visit the academy web site.

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

**HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION 2 (850427)**  
**Grades: 11, 12** **Credit: two**  
**Prerequisite: Heating, Ventilation, Air Conditioning, and Refrigeration 1 (850327)**  
**(Edison Academy - transportation may be provided)**

Students in level 2 will utilize the foundations learned in the first level to design, troubleshoot and correct problems in HVAC systems. Through engineering programs, simulations, and practices, students will calculate loads for buildings and specialized environments. Students will learn to write programs by using programmable logic controls (PLCs) and smart house programs for automating building energy management systems. This course may be offered for college credit. Student internship experiences are an option for this course. For more information, visit the academy web site.

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

**LANDSCAPE ARCHITECTURE AND TURF MANAGEMENT 1 (803627)**  
**Principles of Landscaping 1**  
**Grades: 11, 12** **Credit: two**  
**(Edison Academy - transportation may be provided)**

In this course, students develop the necessary knowledge, skills, and habits for employment and advancement in areas such as landscape design, landscape construction, landscape maintenance, turf grass installation, and turf grass management. Students work in the areas of sketching and drawing, analyzing a landscape site, designing for function and aesthetics, identifying and selecting landscape plants, purchasing and installing plants, and maintaining the landscape by watering, fertilizing, mulching, pruning, and controlling pests. This class is both classroom instruction as well as field work.

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

**LANDSCAPE ARCHITECTURE AND TURF MANAGEMENT 2 (805127)**  
**Principles of Landscaping 2**  
**Grades: 11, 12** **Credit: two**  
**Prerequisite: Landscape Architecture and Turf Management 1 (803627)**  
**(Edison Academy - transportation may be provided)**

In this course, students continue to develop the necessary knowledge, skills, and habits for employment and advancement in areas such as landscape design, landscape construction, landscape maintenance, turf grass installation, and turf grass management. Students work in the areas of sketching and drawing, analyzing a landscape site, designing for function and aesthetics, identifying and selecting landscape plants, purchasing and installing plants, and maintaining the landscape by watering, fertilizing, mulching, pruning, and controlling pests. This class is both classroom instruction as well as field work.

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

**PROFESSIONAL PHOTOGRAPHY STUDIO 1 (860727)**  
**Grades: 11, 12** **Credit: two**  
**(Fairfax Academy - transportation may be provided)**

In a state-of-the art digital photography lab/studio, students use the latest digital cameras on both the PC and Mac platforms. Students will photograph people, places, and objects and will prepare these images with the intent of professional publication using software such as Adobe Photoshop, Illustrator, InDesign, and Acrobat. The course allows the students to see dynamic results in real time and to print their work on professional level color printers. Topics include image composition, digital editing, studio and location lighting, file formats, file maintenance and storage, and print production. Students will relate these skills to the current business and art practices of the modern commercial photographic industry. In addition, students will develop personal portfolios to aid in entry into the marketplace or advanced photography educational program. For more information, visit the academy web site.

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

**PROFESSIONAL PHOTOGRAPHY STUDIO 2 (860827)**  
**Grades: 11, 12** **Credit: two**  
**Prerequisite: Professional Photography Studio 1 (860727). Portfolio review may be required.**  
**(Fairfax Academy - transportation may be provided)**

This course provides students with experience needed to begin a career in commercial photography as well as an in-depth view of digital photography and related industries. Students will develop advanced studio lighting techniques and composition skills in this project-oriented course. Creativity, imagination, and innovation are qualities that will be exercised by using high-end digital cameras and sophisticated imagery and production software such as Adobe Photoshop, Adobe Illustrator, InDesign, and Acrobat. Students will relate these skills to the current practices of art and business in the modern commercial photographic industry. A component of this course is dedicated to learning how to open and maintain a professional photography studio. Students will work independently, as well as collaboratively, toward the completion of class projects. Students will develop personal portfolios to aid in entry into the marketplace or advanced photography educational program. For more information, visit the academy web site.

**Industry certification may be available as part of this course. Students successfully completing this course may be eligible to earn a Career and Technical Education diploma seal. Students successfully completing**

this course will satisfy the sequential elective requirement for the standard or modified standard diploma. Successful completion of this course in conjunction with a corresponding industry certification may qualify for a student selected verified credit. This course requires a student materials fee as listed in FCPS Notice 5922. Students successfully completing this course may be eligible for articulated credit with approved colleges or universities.

**PROFESSIONAL TELEVISION PRODUCTION 1 (868827)**  
**Grades: 11, 12** **Credit: two**  
(Fairfax and West Potomac Academies - transportation may be provided)

This curriculum is designed to train students for a career in, or entry into a collegiate program involving the television and film production industries. Film, Video, and Multi-Media terminology, technique, and theory will be discussed. Only state-of-the-art, video equipment is used by the students in this class. Students will learn to operate professional video cameras and field equipment for productions outside of the classroom, and professional studio cameras, audio equipment, special effect generators, and character generators for use in the fully outfitted studio. With parental permission, equipment may be checked out and used for on-location shoots. Students learn postproduction skills on cutting edge non-linear editing equipment, and finalize their projects to DVD. Toward the end of the first year, students may be presented with internship and professional work opportunities. For more information, visit the academy web site.

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

**PROFESSIONAL TELEVISION PRODUCTION 2 (868927)**  
**Grades: 11, 12** **Credit: two**  
**Prerequisite: Professional Television Production 1 (868827)**  
(Fairfax and West Potomac Academies - transportation may be provided)

Students continue to build a foundation of knowledge and skills through hands-on experience operating professional television production equipment in the field and studio as described in Television Production 1. All students are expected to take advantage of numerous internship opportunities that are available for 2nd year students. New learning opportunities include the ability to specialize in any of several dozen areas of interest with regards to pre-production, production, and post-production. Extensive guidance is offered to students seeking postsecondary educational opportunities and professional experience. For more information, visit the academy web site.

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

## WORLD LANGUAGES

**ARABIC 1 (501000)**  
**Grades: 8, 9, 10, 11, 12** **Credit: one**  
**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.

**FRENCH 1 (511000)**  
**Grades: 8, 9, 10, 11, 12** **Credit: one**  
**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.

**FRENCH 2 (512000)**  
**Grades: 9, 10, 11, 12** **Credit: one**  
**Prerequisite: Level 1 or equivalency test**

Students continue to develop proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to communicate orally and in writing. They learn to function in real-life situations using more complex sentences and language structures. They read material on familiar topics and produce short writing samples. Students continue to explore as they study the POS themes of Home Life, Student Life, Leisure Time, and Vacation and Travel.

**FRENCH 3 (513000)**  
**Grades: 9, 10, 11, 12** **Credit: one**  
**Prerequisite: Level 2 or equivalency test**

Students continue to develop and refine their proficiency in all four language skills - listening, speaking, reading and writing - with emphasis on the ability to interact orally and in writing. They communicate using more complex language structures on a variety of topics, moving from concrete to more abstract concepts. At this level, students comprehend the main ideas of the authentic materials that they read and hear and are able to identify significant details when the topics are familiar. Students gain a deeper understanding of the world around them while studying the POS themes of Rights and Responsibilities, Future Plans and Choices, Teen Culture, Environment, and Humanities.

**FRENCH 4 (514000)**  
**Grades: 10, 11, 12** **Credit: one**  
**Prerequisite: Level 3 or equivalency test**

Students develop more sophisticated communication skills in all four areas - listening, speaking, reading and writing - with emphasis on the ability to interact orally and in writing. The authentic reading selections are emphasized at this level. Students communicate using more complex language structures and express abstract ideas with reasonable fluency. Students are able to create and listen with understanding to reports and presentations. They are also able to describe, summarize and discuss selected upper level POS themes and topics.

**IB FRENCH I (514208)**  
**FRENCH IB STANDARD LEVEL**  
**Grades: 11, 12** **Credit: one/weighted +1.0**  
**Prerequisite: Three years of French or equivalency test and permission of instructor**

In this course students continue their development of proficiency in listening, speaking, reading and writing French. Emphasis is placed on using these skills in realistic contexts utilizing authentic materials, to include recordings, films, newspapers and magazines, in addition to selected literary works. Examples and questions from past IB exams are used as learning tools at appropriate times throughout the course. IB French, Part 1, together with IB French, Part 2, prepares students to take the IB French standard level examination.

**IB FRENCH SL, II (515208)**  
**FRENCH IB STANDARD LEVEL**  
**Grades: 11, 12** **Credit: one/weighted +1.0**

**IB FRENCH HL, II (515209)**  
**FRENCH IB HIGHER LEVEL**  
**Grades: 12** **Credit: one/weighted +1.0**  
**Prerequisite: Four years of French or equivalency test and permission of instructor. IB French part 1 is preferred immediately prior to this course.**

IB French, Part 2 is the second segment of a two-year series that prepares students to take the IB French Exam. The development of all language skills - listening, speaking, reading, writing - continues, with emphasis on using the language in realistic contexts with authentic materials, to include films, recordings, newspapers and magazines. Selected literary works are included. Examples and questions from past IB exams are used as learning tools at appropriate times throughout the course. Students are required to take the higher level examination.

**GERMAN 1 (521000)**  
**Grades: 8, 9, 10, 11, 12** **Credit: one**  
**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.

**GERMAN 2 (522000)**  
**Grades: 9, 10, 11, 12** **Credit: one**  
**Prerequisite: Level 1 or equivalency test**

Students continue to develop proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to communicate orally and in writing. They learn to function in real-life situations using more complex sentences and language structures. They read material on familiar topics and produce short writing samples. Students continue to explore as they study the POS themes of Home Life, Student Life, Leisure Time, and Vacation and Travel.

**GERMAN 3 (523000)**  
**Grades: 9, 10, 11, 12** **Credit: one**  
**Prerequisite: Level 2 or equivalency test**

Students continue to develop and refine their proficiency in all four language skills - listening, speaking, reading and writing - with emphasis on the ability to interact orally and in writing. They communicate using more complex language structures on a variety of topics, moving from concrete to more abstract concepts. At this level, students comprehend the main ideas of the authentic materials that they read and hear and are able to identify significant details when the topics are familiar. Students gain a deeper understanding of the world around them while studying the POS themes of Rights and Responsibilities, Future Plans and Choices, Teen Culture, Environment, and Humanities.

**GERMAN 4 (524000)**  
**Grades: 10, 11, 12** **Credit: one**  
**Prerequisite: Level 3 or equivalency test**

Students develop more sophisticated communication skills in all four areas - listening, speaking, reading and writing - with emphasis on the ability to interact orally and in writing. The authentic reading selections are emphasized at this level. Students communicate using more complex language structures and express abstract ideas with reasonable fluency. Students are able to create and listen with understanding to reports and presentations. They are also able to describe, summarize and discuss selected upper level POS themes and topics.

**IB GERMAN I (524208)**  
**GERMAN IB STANDARD LEVEL**  
**Grades: 11, 12** **Credit: one/weighted +1.0**  
**Prerequisite: Three years of German or equivalency test and permission of instructor**

Students continue to develop proficiency in speaking, listening, reading, and writing German. Emphasis is placed on using these skills in realistic contexts utilizing authentic materials, to include recordings, films, newspapers and magazines, in addition to selected literary works. Examples and questions from past IB exams are used as learning tools at appropriate times throughout the course. IB German, Part 1, together with IB German, Part 2, prepares students to take the IB German standard level examination.

**IB GERMAN SL, II (525208)**  
**GERMAN IB STANDARD LEVEL**  
**Grades: 11, 12** **Credit: one/weighted +1.0**

**IB GERMAN HL, II (525209)**  
**GERMAN IB HIGHER LEVEL**  
**Grades: 12** **Credit: one/weighted +1.0**  
**Prerequisite: Four years of German or equivalency test and permission of instructor. IB German, Part 1 is preferred immediately prior to this course.**

IB German, Part 2 is the second segment of a two-year series that prepares students to take the IB German Exam. The development of all language skills-listening, speaking, reading, writing-continues, with emphasis on using the language in realistic contexts with authentic materials, to include films, recordings, newspapers and magazines. Selected literary works are included. Examples and questions from past IB exams are used as learning tools at appropriate times throughout the course. Students are required to take the higher level examination.

**JAPANESE 1 (591000)**  
**Grades: 8, 9, 10, 11, 12** **Credit: one**  
**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. The Kana system of writing, along with some basic characters, is taught in this course. 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 requirements of the high school Advanced Studies diploma. It also counts toward the total number of credits required for graduation.

**JAPANESE 2 (592000)**  
**Grades: 9, 10, 11, 12** **Credit: one**  
**Prerequisite: Japanese 1 or equivalency test**

Students continue to develop proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to communicate orally and in writing. They learn to function in real-life situations using more complex sentences and language structures. They read material on familiar topics and produce short writing samples. Students continue to explore as they study the themes of Home Life, Student Life, Leisure Time, and Vacation and Travel.

**JAPANESE 3 (593000)**  
**Grades: 9, 10, 11, 12** **Credit: one**  
**Prerequisite: Japanese 2 or equivalency test**

Students continue to develop and refine their proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to interact orally and in writing. They communicate using more complex language structures on a variety of topics, moving from concrete to more abstract concepts. At this level, students comprehend the main ideas of the authentic materials that they read and hear, and they are able to identify significant details when the topics are familiar. Students gain a deeper understanding of the world around them while studying Rights and Responsibilities, Future Plans and Choices, Teen Culture, Environment, and Humanities.

**JAPANESE 4 (594000)****Grades: 10, 11, 12****Credit: one****Prerequisite: Japanese 3 or equivalency test**

Students develop more sophisticated communication skills in all four areas - listening, speaking, reading and writing - with emphasis on the ability to interact orally and in writing. The authentic reading selections are emphasized at this level. Students communicate using more complex language structures and express abstract ideas with reasonable fluency. Students are able to create and listen with understanding to reports and presentations. They are also able to describe, summarize and discuss selected upper level POS themes and topics.

**IB JAPANESE I (594208)****JAPANESE IB STANDARD LEVEL****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: Three years of Japanese or equivalency test and permission of instructor**

In this course students continue to develop their proficiency in listening, speaking, reading and writing Japanese. Emphasis is placed on using these skills in realistic contexts utilizing authentic materials; to include recordings, films, newspapers and magazines in addition to selected literary works. Examples and questions from past IB exams are used as learning tools at appropriate times throughout the course. Students are required to take the standard level IB Japanese exam in the spring following enrollment.

**IB JAPANESE SL II (595208)****JAPANESE IB STANDARD LEVEL****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: Four years of Japanese or equivalency test and permission of instructor. IB Japanese, Part I is preferred immediately prior to this course.**

IB Japanese, Part 2, is the second segment of a two-year series that prepares students to take the IB Japanese Exam. The development of all language skills-listening, speaking, reading, writing-continues, with emphasis on using the language in realistic contexts with authentic materials, to include films, recordings, newspapers and magazines. Selected literary works are included. Examples and questions from past IB exams are used as learning tools at appropriate times throughout the course. Students are required to take the standard level examination.

**LATIN 1 (531000)****Grades: 8, 9, 10, 11, 12****Credit: one****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.

**LATIN 2 (532000)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Level 1 or equivalency test**

Students learn additional vocabulary, more complex language structures and syntax in order to be able to read more challenging passages in Latin. Language structures and syntax are developed through the study of literary passages. Students continue to explore as they study Roman life and Rome's contribution to our civilization.

**LATIN 3 (533000)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Latin 2 or equivalency test**

Students continue to develop and refine their reading skills through the study of Latin literature. Additional vocabulary, more complex language structures and syntax are emphasized in order to be able to read the writings of prose authors. Through translation and interpretation, students gain a greater understanding of the foundation of Western government and civilization.

**LATIN 4 (534000)****Grades: 11, 12****Credit: one****Prerequisite: Latin 3 or equivalency test**

Students continue to develop and refine their reading skills through the study of Latin literature. Students read Vergil's Aeneid silently for comprehension and orally for poetic meter and analyze the various passages for content, connotation of words and author's style. Students study the life and times of Vergil, his influence on later writers, his poetic devices, and his Aeneid as a literary work.

**IB LATIN I (537008)****LATIN IB STANDARD LEVEL****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: Three years of Latin or equivalency test and permission of instructor**

This course focuses on the work of Ovid and Vergil, with emphasis placed on refining the student's ability to comprehend and interpret Latin poetry. It includes the study of literary techniques and poetic devices used by Roman authors, the life and times of Vergil, his influence on later writers, and the literary importance of the Aeneid. IB Latin, Part 1, together with IB Latin, Part 2, prepares students to take the IB standard level Latin examination.

**IB LATIN SL, II (538008)****LATIN IB STANDARD LEVEL****Grades: 12****Credit: one/weighted +1.0****Prerequisite: Four years of Latin or equivalency test and permission of instructor. IB Latin, Part 1 is preferred immediately prior to this course.**

IB Latin, Part 2, is the second segment of a two-year series that prepares students to take the IB Latin Exam. The course continues to focus on the work of Ovid and Vergil, with emphasis placed on refining the student's ability to comprehend and interpret Latin poetry. It includes the study of literary techniques and poetic devices used by Roman authors, the life and times of Vergil, his influence on later writers, and the literary importance of the Aeneid. Students are required to take the standard level examination.

**SPANISH 1 (551000)****Grades: 8, 9, 10, 11, 12****Credit: one****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 2 (552000)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Level 1 or equivalency test**

Students continue to develop proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to communicate orally and in writing. They learn to function in real-life situations using more complex sentences and language structures. They read material on familiar topics and produce short writing samples. Students continue to explore as they study the POS themes of Home Life, Student Life, Leisure Time, and Vacation and Travel.

**SPANISH 3 (553000)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Level 2 or equivalency test**

Students continue to develop and refine their proficiency in all four language skills - listening, speaking, reading and writing - with emphasis on the ability to interact orally and in writing. They communicate using more complex language structures on a variety of topics, moving from concrete to more abstract concepts. At this level, students comprehend the main ideas of the authentic materials that they read and hear and are able to identify significant details when the topics are familiar. Students gain a deeper understanding of the world around them while studying the POS themes of Rights and Responsibilities, Future Plans and Choices, Teen Culture, Environment, and Humanities.

**SPANISH 4 (554000)****Grades: 11, 12****Credit: one****Prerequisite: Level 3 or equivalency test**

Students develop more sophisticated communication skills in all four areas - listening, speaking, reading and writing - with emphasis on the ability to interact orally and in writing. The authentic reading selections are emphasized at this level. Students communicate using more complex language structures and express abstract ideas with reasonable fluency. Students are able to create and listen with understanding to reports and presentations. They are also able to describe, summarize and discuss selected upper level POS themes and topics.

**SPANISH 5 (555000)****Grades: 11, 12****Credit: one****Prerequisite: Level 4, or Advanced Placement Language, or equivalency test**

Students study selected upper level POS themes and topics using more sophisticated communication skills in all four areas - listening, speaking, reading and writing - with emphasis on the ability to interact orally and in writing. They participate in in-depth studies of major literary works and historical events and learn to recognize the various themes and conflicts involved. Students express abstract ideas while discussing literature, history, and current events.

**IB SPANISH I (554208)****SPANISH IB STANDARD LEVEL****Grades: 11, 12****Credit: one/weighted +1.0****IB SPANISH I (554209)****SPANISH IB HIGHER LEVEL****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: Three years of Spanish or equivalency test and permission of instructor**

In this course students continue their development of proficiency in listening, speaking, reading and writing Spanish. Emphasis is placed on using these skills in realistic contexts utilizing authentic materials; to include recordings, films, newspapers and magazines in addition to selected literary works. Examples and questions from past IB exams are used as learning tools at appropriate times throughout the course. IB Spanish, Part 1, together with IB Spanish, Part 2, prepares students to take the IB Spanish higher level examination.

**IB SPANISH SL, II (555208)****SPANISH IB STANDARD LEVEL****Grades: 11, 12****Credit: one/weighted +1.0****IB SPANISH HL, II (555209)****SPANISH IB HIGHER LEVEL****Grades: 12****Credit: one/weighted +1.0**

IB Spanish, Part 2, is the second segment of a two-year series that prepares students to take the IB Spanish Exam. The development of all language skills-listening, speaking, reading, writing-continues, with emphasis on using the language in realistic contexts with authentic materials, to include films, recordings, newspapers and magazines. Selected literary works are included. Examples and questions from past IB exams are used as learning tools at appropriate times throughout the course. Students are required to take the higher level examination.

**SPANISH FOR FLUENT SPEAKERS 1 (551100)****Grades: 8, 9, 10, 11, 12****Credit: one****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.

**SPANISH FOR FLUENT SPEAKERS 2 (552100)****Grades: 8, 9, 10, 11, 12****Credit: one****Prerequisite: Spanish for Fluent Speakers 1 or permission from instructor**

This course, designed for fluent speakers of Spanish, continues to emphasize the improvement of students' skills in speaking, reading, and writing in Spanish. Students read and critique contemporary short stories and make oral presentations. The writing and reading processes are emphasized to ensure growth in both skills. The students will also study various Hispanic personalities and historic events of Spanish-speaking countries. The course is conducted in Spanish. 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.

**SPANISH FOR FLUENT SPEAKERS 3 (553100)****Grades: 8, 9, 10, 11, 12****Credit: one****Prerequisite: Spanish for Fluent Speakers 2 or permission from instructor**

This course, designed for speakers of Spanish, continues to emphasize the refinement of proficiency in reading, writing, and speaking Spanish. Students develop research skills through the reading and critiquing of literary works. The influence of Hispanic culture in contemporary American society is highlighted. The course is conducted in Spanish and counts toward fulfilling the world languages requirement of the high school Advanced Studies diploma.

**E-CLASSROOM ARABIC 1 (501062)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: None****Enrollment in this course must be approved by the Director of Student Services.**

In this electronic classroom course, 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. Schools must have a facilitator on hand to proctor tests, ensure students are on task, and forward information to the instructor. Schools must provide adequate study area for distance learning students, access to TV, and telephone.

**E-CLASSROOM ARABIC 2 (502062)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Level 1 or equivalency test.****Enrollment in this course must be approved by the Director of Student Services.**

In this electronic classroom course, students continue to develop proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to communicate orally and in writing. They learn to function in real-life situations using more complex sentences and language structures. They read material on familiar topics and produce short writing samples. Students continue to explore as they study the themes of Home Life, Student Life, Leisure Time, and Vacation and Travel. Schools must have a facilitator on hand to proctor tests, ensure students are on task, and forward information to the instructor. Schools must provide adequate study area for distance learning students, access to TV, and telephone.

**E-CLASSROOM ARABIC 3 (503062)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Level 2 or equivalency test****Enrollment in this course must be approved by the Director of Student Services.**

In this electronic classroom course, students continue to develop and refine their proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to interact orally and in writing. They communicate using more complex language structures on a variety of topics, moving from concrete to more abstract concepts. At this level, students comprehend the main ideas of the authentic materials that they read and hear, and they are able to identify significant details when the topics are familiar. Students gain a deeper understanding of the world around them while studying Rights and Responsibilities, Future Plans and Choices, Teen Culture, Environment, and Humanities. Schools must have a facilitator on hand to proctor tests, ensure students are on task, and forward information to the instructor. Schools must provide adequate study area for distance learning students, access to TV, and telephone.

**CHINESE 1 (581026)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: none****(Marshall and Fairfax Academies - transportation may be provided)**

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. This course is only offered at Fairfax Academy and Marshall Academy.

**CHINESE 2 (582026)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Chinese 1 or equivalency test****(Marshall and Fairfax Academies - transportation may be provided)**

Students continue to develop proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to communicate orally and in writing. They learn to function in real-life situations using more complex sentences and language structures. They read material on familiar topics and produce short writing samples. Students continue to explore as they study the themes of Home Life, Student Life, Leisure Time, and Vacation and Travel. This course is only offered at Fairfax Academy and Marshall Academy.

**CHINESE 3 (583026)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Chinese 2 or equivalency test****(Marshall Academy - transportation may be provided)**

Students continue to develop and refine their proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to interact orally and in writing. They communicate using more complex language structures on a variety of topics, moving from concrete to more abstract concepts. At this level, students comprehend the main ideas of the authentic materials that they read and hear, and they are able to identify significant details when the topics are familiar. Students gain a deeper understanding of the world around them while studying Rights and Responsibilities, Future Plans and Choices, Teen Culture, Environment, and Humanities. This course is only offered at the Marshall Academy.

**CHINESE 3 (583033)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Chinese 2 or equivalency test****(Fairfax Academy - transportation may be provided)**

During this fall semester course students continue to develop and refine their proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to interact orally and in writing. They communicate using more complex language structures on a variety of topics, moving from concrete to more abstract concepts. At this level, students comprehend the main ideas of the authentic materials that they read and hear, and they are able to identify significant details when the topics are familiar. Students gain a deeper understanding of the world around them while studying Rights and Responsibilities, Future Plans and Choices, Teen Culture, Environment, and Humanities. This course is only offered at the

Fairfax Academy. Students who sign up for Chinese 3 in the fall semester must take Chinese 4 in the spring.

**CHINESE 4 (584026)****Grades: 10, 11, 12****Credit: one****Prerequisite: Chinese 3 or equivalency test****(Marshall Academy - transportation may be provided)**

Students develop more sophisticated communication skills in all four areas - listening, speaking, reading and writing - with emphasis on the ability to interact orally and in writing. The authentic reading selections are emphasized at this level. Students communicate using more complex language structures and express abstract ideas with reasonable fluency. Students are able to create and listen with understanding to reports and presentations. They are also able to describe, summarize and discuss selected upper level POS themes and topics. This course is only offered at the Marshall Academy.

**CHINESE 4 (584034)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Chinese 3 or equivalency test****(Fairfax Academy - transportation may be provided)**

During this spring semester course, students develop more sophisticated communication skills in all four areas - listening, speaking, reading and writing - with emphasis on the ability to interact orally and in writing. The authentic reading selections are emphasized at this level. Students communicate using more complex language structures and express abstract ideas with reasonable fluency. Students are able to create and listen with understanding to reports and presentations. They are also able to describe, summarize and discuss selected upper level POS themes and topics. This course is only offered at Fairfax Academy.

**KOREAN 1 (587026)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: none****(Fairfax Academy - transportation may be provided)**

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. The implementation of this course is contingent upon an enrollment of 25 students. This course is only offered at the Fairfax Academy.

**KOREAN 2 (587526)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Korean 1 or equivalency test****(Fairfax Academy - transportation may be provided.)**

Students continue to develop proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to communicate orally and in writing. They learn to function in real-life situations using more complex sentences and language structures. They read material on familiar topics and produce short writing samples. Students continue to explore as they study the themes of Home Life, Student Life, Leisure Time, and Vacation and Travel. The implementation of this course is contingent upon an enrollment of 25 students. This course is only offered at the Fairfax Academy.

**KOREAN 3 (588026)****Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Korean 2 or equivalency test****(Fairfax Academy - transportation may be provided)**

During this fall semester course students continue to develop and refine their proficiency in all four language skills - listening, speaking, reading, and writing - with emphasis on the ability to interact orally and in writing. They communicate using more complex language structures on a variety of topics, moving from concrete to more abstract concepts. At this level, students comprehend the main ideas of the authentic materials that they read and hear, and they are able to identify significant details when the topics are familiar. Students gain a deeper understanding of the world around them while studying Rights and Responsibilities, Future Plans and Choices, Teen Culture, Environment, and Humanities. The implementation of this course

is contingent upon an enrollment of 25 students. This course is only offered at the Fairfax Academy. Students who sign up for Korean 3 in the fall semester must take Korean 4 in the spring semester.

**KOREAN 4 (588526)**

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

**Credit: one**

**Prerequisite: Korean 3 or equivalency test.**

**(Fairfax Academy - transportation may be provided.)**

During this spring semester course students develop more sophisticated communication skills in all four areas - listening, speaking, reading and writing - with emphasis on the ability to interact orally and in writing. The authentic reading selections are emphasized at this level. Students communicate using more complex language structures and express abstract ideas with reasonable fluency. Students are able to create and listen with understanding to reports and presentations. They are also able to describe, summarize and discuss selected upper level POS themes and topics. The implementation of this course is contingent upon an enrollment of 25 students. This course is only offered at the Fairfax Academy. Students who sign up for Korean 4 in the spring semester must have taken Korean 3 in the fall semester.

## SPECIAL EDUCATION

**ADAPTED PHYSICAL EDUCATION (770000)**

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

**Credit: one**

**Prerequisite: Students must have an Individual Education Plan (IEP) for course enrollment.**

Adapted physical education is a developmental course for general education and/or special education students. The course serves students who are temporarily or permanently physically disabled or have deficiencies in motor coordination and/or physical fitness. The program is individualized and is directed toward improvement of deficiencies.

**BASIC SKILLS I-IV - LD (788980)**

**BASIC SKILLS I-IV - IDS (788989)**

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

**Credit: one**

This elective course is designed to provide support to a student in core curricular areas and to provide direct instruction in specific learning strategies, study skills, time management, organization, and coping skills. Time is also allotted to address individual areas of need as identified in a student's Individual Educational Plan (IEP). While students may receive assistance on core curricular assignments, the course is not designed to serve as a study hall. Students enrolled in the course receive the equivalent of one period of instruction each day and earn an elective credit. This course may be taught for an elective credit all four years or more, as appropriate. Students successfully completing two years of this course will satisfy the sequential elective requirement for the Standard and Modified Standard Diploma. (Students may be awarded a half-credit upon completion of a full semester of placement in the Basic Skills course. Such a decision is made by the school counselor in conjunction with the special education department chair.)

**DEVELOPMENTAL READING - LD (118080)**

**DEVELOPMENTAL READING - ID (118082)**

**DEVELOPMENTAL READING - IDS (118089)**

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

**Credit: one**

This course is designed to provide direct, explicit and intensive reading instruction to students with disabilities who are reading significantly below grade level. Basic objectives of the reading courses are focused on closing the gap between the student's present level of performance and the level of performance needed to successfully access the general curriculum. Instruction focuses on increasing student's decoding, fluency and comprehension skills of fiction and nonfiction materials, which is based on the diagnosis of each student's needs as outlined through the student's Individual Education Program (IEP).

**EDUCATION FOR EMPLOYMENT 1 (908361)**

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

**Credit: one**

This course is for students with disabilities. Students learn about the world of work and may participate in a work experience as part of the instructional program.

**FACILITIES AND GROUNDS MAINTENANCE (859061)**

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

**Credit: one**

**Formerly General Building Maintenance/Facilities Services**

Students are trained in maintenance areas associated with large and small buildings involving not only custodial trades but also general maintenance of electrical and plumbing systems, carpentry, and other minor repairs related to the school or apartment dwelling complex, as well as the grounds surrounding the building. Students successfully completing two years of this course will satisfy the sequential elective requirement for the Standard or Modified Standard diploma.

**FITNESS AND FOOD (822833 - Fall Semester)**

**FITNESS AND FOOD (822834 - Spring Semester)**

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

**Credit: one-half**

This course is designed to focus on making choices that promote wellness and good health; analyzing relationships between psychological and social needs, and food choices; choosing foods that promote wellness; obtaining and storing food for self and family; preparing and serving nutritious meals and snacks; selecting and using equipment for food preparation; and, identifying strategies to promote optimal nutrition and wellness of our society. The basic skills of mathematics, science, and communications will be highlighted when appropriate in the content. Students completing Fitness and Food with a "B" or better may be eligible to articulate up to two credits at Stratford University.

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

**FOUNDATIONS OF BIOLOGY (781180)**

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

**Credit: one**

Foundations of Science is a one-credit elective course designed to support instruction along the FCPS Program of Studies and the VA Aligned Standards of Learning (ASOL) in the identified content area; does not require SOL testing and does not meet the credit requirements for Modified Standard, Standard or Advanced Studies Diplomas. Students may enroll in this elective class each year of HS participation. Instruction is individualized based on needs identified in the IEP to help students gain a basic content vocabulary, knowledge and skills and designed to be taught at the learning pace of the individual students. Participation in Foundations courses will aid the student in fulfilling requirements of the Virginia Alternative Assessment Program (VAAP) and meet the requirements for a Special Diploma.

**FOUNDATIONS OF ENGLISH 9-12 (781380)**

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

**Credit: one**

Foundations of English, 9-12, is a one-credit elective course designed to support instruction along the FCPS Program of Studies and the VA Aligned Standards of Learning (ASOL) in the identified content area; does not require SOL testing and does not meet the credit requirements for Modified Standard, Standard or Advanced Studies Diplomas. Students may enroll in this elective class each year of HS participation. Instruction is individualized based on needs identified in the IEP to help students gain a basic content vocabulary, knowledge and skills and designed to be taught at the learning pace of the individual students. Participation in Foundations courses will aid the student in fulfilling requirements of the Virginia Alternative Assessment Program (VAAP) and meet the requirements for a Special Diploma.

**FOUNDATIONS OF UNITED STATES AND VIRGINIA HISTORY (781480)**

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

**Credit: one**

Foundations of United States and Virginia History is a one-credit elective course designed to provide students with a fundamental understanding of the political, economic, social and cultural growth of the United States, including the role of Virginia in this development. The material is taught through the following techniques: compare/contrast, inquiry/research, technology, reading comprehension, and problem-solving. This course may be taught for elective credit for 2 years, as appropriate.

**FOUNDATIONS OF WORLD HISTORY/GEOGRAPHY (781080)**  
**Grades: 9, 10, 11, 12** **Credit: one**

Foundations of World History/Geography is a one-credit elective course designed to support instruction along the FCPS Program of Studies and the VA Aligned Standards of Learning (ASOL) in the identified content area; does not require SOL testing and does not meet the credit requirements for Modified Standard, Standard or Advanced Studies Diplomas. Students may enroll in this elective class each year of HS participation. Instruction is individualized based on needs identified in the IEP to help students gain a basic content vocabulary, knowledge and skills and designed to be taught at the learning pace of the individual students. Participation in Foundations courses will aid the student in fulfilling requirements of the Virginia Alternative Assessment Program (VAAP) and meet the requirements for a Special Diploma.

**LIFE SKILLS (798800)**  
**Grades: 9, 10, 11, 12** **Credit: one**

This comprehensive individualized program is designed to prepare students for a style of living that will require a minimum of dependence on family. The course is geared to meet the needs of the students as they prepare to enter employment and emphasizes developing interpersonal skills, following directions, working independently, completing a task, and developing self-advocacy and other community living skills.

**OFFICE TECHNOLOGY AND PROCEDURES (847161)**  
**Grades: 9, 10, 11, 12** **Credit: one**

This program offers instruction in office procedures and technology. Students learn skills in MS Office applications and perform assignments essential to the operation of the day-to-day instructional program at schools, offices, and in the business community. This course can be taken for more than one year. Students successfully completing two years of this course will satisfy the sequential elective requirement for the Standard or Modified Standard diploma.

**PERSONAL AND FINANCIAL MATHEMATICS (312080)**  
**Grades: 11, 12** **Credit: one**  
**Prerequisite: One high school mathematics course**

Students learn how to become wiser consumers in today's society. Course topics include personal money management, business procedures, transportation, budgeting, taxation, banking, and insurance. Calculators are used as a tool throughout the course. This course does not meet the mathematics graduation requirements for the Standard or Advanced Studies Diploma.

**PERSONAL DEVELOPMENT - LD (781580)**  
**PERSONAL DEVELOPMENT - ED (781583)**  
**Grades: 9, 10, 11, 12** **Credit: one**

Designed for students whose social/emotional needs affect their school performance. Instructional topics include: understanding yourself, goal setting, communication, building relationships, dealing with emotions, stress management, wellness, problem-solving, decision-making, self-advocacy, and career and transition. This course is appropriate for students who have documented social/emotional needs on their Individualized Educational Program (IEP).

**REINFORCING FOUNDATIONS (781800)**  
**Grades: 10, 11, 12** **Credit: one**

Reinforcing Foundations is a one credit elective course designed to provide support to tenth, eleventh, and/or twelfth grade high school special education students who have not yet passed the eighth grade English: Reading/Literature and Research and Mathematics Standard of Learning tests and may be pursuing a modified standard diploma. This course will include skill work in reading comprehension, research, literature, computation, estimation, measurement, patterns, and basic algebra. This course may be taught for elective credit for three years, as appropriate. Students may be awarded a half-credit upon completion of a full semester of placement in Reinforcing Foundations. Such a decision is made by the school counselor in conjunction with the special education department chair.

**WORK AWARENESS AND TRANSITION (907161)**  
**Grades: 9, 10, 11, 12** **Credit: one**

This option is available to high school students receiving special education services. Students explore potential career options while developing/improving skills needed for success in employment such as interpersonal/co-worker relationships. Most students participate in community work experiences as well. Students successfully completing two years of this course will satisfy the sequential elective requirement for the Standard or Modified Standard diploma.



## The International Baccalaureate Program South Lakes High School

### The IB Middle Years Program (MYP) and the IB Diploma Program (DP)

These pages contain information for students and parents to use as they consider the advanced academic options available at South Lakes High School (SLHS.) Several opportunities are available to SLHS students.

#### The IB Middle Years Program (IBMYP)

- Includes all students in grades **9 and 10**.
- Honors classes may be chosen by students in grades 9 and 10.
- Students may choose to complete requirements for the Middle Years Certificate.

#### The IB Diploma Program (IBDP)

- Includes students in **11<sup>th</sup> and 12<sup>th</sup>** grades who opt for the challenge of advanced classes.
- Students take classes in six areas and complete three additional tasks for the **IB Diploma**

OR

#### The IB Career Related Certificate (IBCC)

- Students take a career and technical education course in 11<sup>th</sup> and 12<sup>th</sup> grades.
- Students take two diploma courses and complete three additional tasks similar to those of the diploma program.

OR

#### Diploma Courses

- Students may take one or more IB classes of their choice to earn IB Diploma Program Certification.

### IB Middle Years Program Information

All students enrolled in 9<sup>th</sup> or 10<sup>th</sup> grade participate in MYP, a program emphasizing 8 subject categories and, for those students interested in taking on additional challenges, a culminating Certificate of Achievement at the end of 10<sup>th</sup> grade. All 9<sup>th</sup> and 10<sup>th</sup> grade teachers instruct in the MYP methodology and all classes in the first two years of high school are considered MYP students. Students may choose between advanced Honors level classes or general level classes. Both levels present Fairfax County curriculum with the Honors courses taught in a more rigorous version in the four core areas of social studies, math, English, and science.

**Participation in MYP is not a prerequisite for participation in the IB Diploma program.** In the same way, not taking a Honors course does not automatically exclude a student from taking IB classes in that subject. Students who've taken the more rigorous Honors class may have an advantage. Teacher recommendations and student achievement may be considered in determining student eligibility for a course.

### **Are you an IB student?**

Go to [www.ibo.org/programmes/profile/](http://www.ibo.org/programmes/profile/) and watch the short video about the IB Learner Profile. Do those characteristics describe you? If so, the International Baccalaureate Diploma Program (IBDP) may be right for you.

IBDP is a rigorous course of study in six content areas. You may also go to the SLHS web site, <http://www.fcps.edu/SouthLakesHS/> and select Academics, IB, and IB Resources. Look for the title “Is the IB Diploma Program Right for You?” Think about your goals and aspirations, read the web page carefully, read the IB information in this booklet, talk with your parent and make your decision.

Students taking IB classes complete a study of prescribed curriculum and produce internally and externally assessed products. Internal Assessment (IA) is required in each of the six areas of study. See Figure IB 1: Examples of Internal Assessment below. The IA work is scored by teachers and moderated by examiners from IBO. External Assessment includes exam papers, essays, and oral responses scored by examiners outside the school.

### **The Diploma Program Curriculum**

To obtain the IB Diploma students take classes in all six subject groups and complete three additional tasks: the Theory of Knowledge (TOK) class, the Extended Essay (EE), and Creativity-Action-Service (CAS). Students successfully completing these courses and tasks receive the International Baccalaureate Diploma. See Figure IB 3: The IB Diploma Requirements.

Students select the level of difficulty for the courses they choose to take. The IB Program’s most challenging courses are taught at the Higher Level (HL). These HL courses always require 2 years of study. HL exams are given only to seniors. A few IB Standard Level (SL) classes can be completed in one year. Two SL exams may be taken in junior year. Diploma Candidates must take at least 3, but no more than 4 HL classes.

To obtain an IBCC, students select two CTE courses in combination with two Diploma Program courses during their junior and senior years. In addition, students complete the IBCC core, comprised of an approaches to learning (ATL) course, language development, a reflective project, and community and service.

Students seeking an academic challenge but not seeking the Diploma choose those Diploma Program courses they wish to take, but do not participate in TOK, EE, or CAS. After completing the coursework, Internal Assessment, and examinations for each class, these Diploma Course students receive IBDP certification of Diploma courses completed.

Students in the IB Diploma IBCC, and Diploma Course groups become members of the South Lakes IB Blackboard Community. IB Course information, testing schedules, and other important information are available at this site.

## How am I graded in IB Courses?

Your teachers must follow guidelines and award grades for you in two ways. You must receive a FCPS report card grade which becomes a part of your transcript which is sent to colleges with your application package. These grades are on the A-F scale used by FCPS. You also receive scores based on the IB grading system. Your Internal Assessment and External Assessment scores are used to compile your final IB grades.

These grades are on a 1-7 scale except for the Extended Essay and TOK essay which are graded A-E. Your IB transcript is sent to your college in July after you graduate and is used to place you in college classes and/or award credit for your completed courses. Your IB grade is composed of Internal Assessment (IA) score (see Figure IB 1) and the External Assessment (EA) which is usually the exams score. More than one component is used to compute your IB grade. The IA component of your grade is very important and this work should be done with careful attention to requirements.

## Do all Diploma and Certificate students complete internal assessment? What is it anyway?

Internal assessment is a written paper, dossier, project or portfolio that is completed in conjunction with a course's curriculum content. The internal assessment of a higher level subject may be different from the internal assessment of the standard level of that subject.

Individual course teachers give students information about the IA requirement for that course. The teachers develop a plan for completion of the IA and a timetable for completion of the components or steps. The information about IA completion for each course can be found on the teacher's Blackboard site. The IA is evaluated by the teacher and moderated by IB evaluators outside the school.

The IA grade becomes a component of the student's final score for a subject. Each component is required to be completed by the student. Without each component or an officially submitted statement verifying that you were ill or some other circumstance prevented your completion of all the IA and EA work on time, you will receive a grade of NG, No Grade, for your work in that class.

Course	Internal Assessment (IA) Document	Percentage of final score from this IA	Percentage of final score from External Assessment (EA)
English	Recorded Oral Commentary	30	World Lit Papers 25 Exam Papers 45
Language B	Conversation recordings Latin Individual Study	30 20	Exam Papers 70 Exam Papers 80
History	Historical Investigation Paper	20 HL 25 SL	Exam Papers 80 HL Exam Papers 75 SL
Experimental Sciences	Portfolio of Laboratory Work	24	Exam Papers 76
Mathematics	Project or portfolio	20	Exam Papers 80
Arts and Electives	Portfolio of works; written paper; performance recording; dossier; or other	30 to 50 depending upon course	Exam Papers 50 to 70 depending upon course

**Figure IB 1: Examples of Internal Assessment and Weighting of IA and EA**

## What IB DP classes can you take at South Lakes?

Class	Level	Length of study to Exam
Group 1 <i>School Language</i> IB English	HL	Prerequisite: Pre IB English 10, English 10 2 years
Group 2 <i>Language B</i> IB French	HL	Prerequisite: 3 years or teacher placement 2 years
IB German	SL	2 years
IB Spanish	HL	2 years
IB Japanese	SL	2 years
Other language options: IB Latin	SL	1 year Prerequisite: Latin 1,2, 3
Group 3 <i>Individuals and Societies</i> IB History of the Americas	HL	2 years
IB History	SL	2 years
IB Business and Management**	HL	2 years
	SL	1 year
Group 4 <i>Experimental Sciences</i> IB Biology	HL	2 years
	SL	1 year
IB Chemistry	HL	2 years*
	SL	2 years*
IB Physics	SL	2 years
IB Computer Science***	HL	2 years
	SL	1 year Prerequisite: Computer Science
Group 5 <i>Mathematics</i> IB Mathematics	HL	2 years
	SL	2 years
IB Mathematical Studies	SL	1 year
Group 6 <i>The Arts and Electives</i> IB Music	HL	2 years
	SL	2 years
IB Visual Arts	HL	2 years
	SL	2 years
IB Theater Arts	HL	2 years
	SL	1 year
Elective can be any IB course from any area not used for credit in that area.		

\*IB Chemistry 1 is usually taken in grade 10 as this course fits Virginia SOL program at that level.

\*\*Cannot be used as a history for Virginia diploma, also may count as a Group 6 elective

\*\*\*Cannot be used as a math for Virginia diploma. , also may count as a Group 6 elective

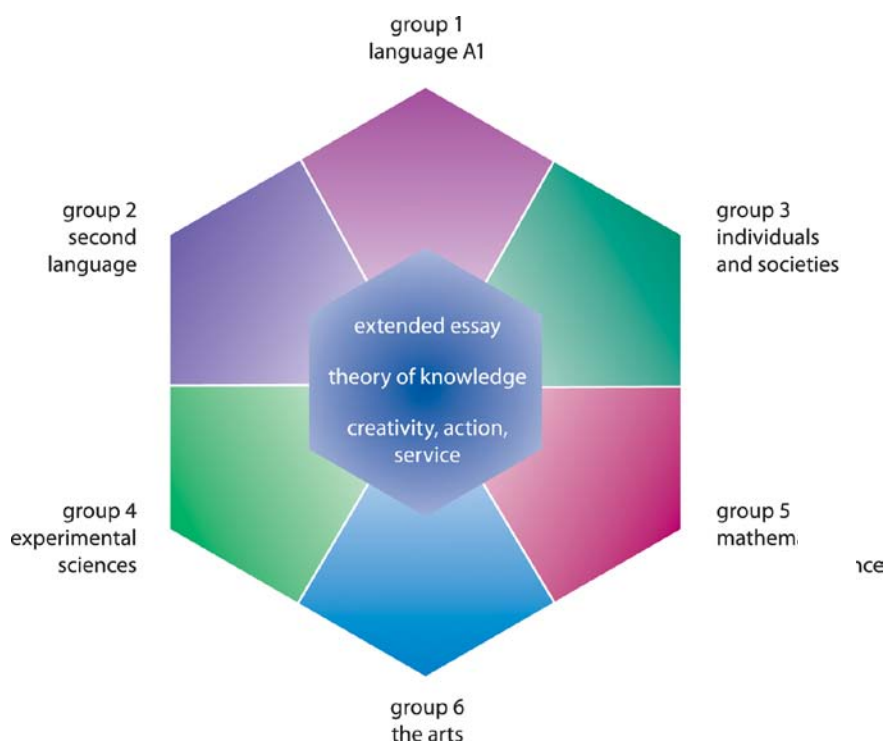
Figure IB 2: IB Courses offered at South Lakes High School

## What classes should I take to earn the IB Diploma?

From the chart Figure IB 2: IB Courses Offered at South Lakes above, select a course for each of the six groups in the IB hexagon in Figure IB 3 below. Be sure that you have the prerequisite courses for the classes you select. These six classes plus the three tasks in the middle of the hexagon represent the requirements for the IB Diploma. To learn more about prerequisites and sequences of courses see pages following this section. They are titled “Your 9-12 IB Course Planner.”

## Should I take HL or SL classes for the IB Diploma?

Full Diploma candidates must take one class in each of the six content groups. Three of the classes must be taken at the Higher Level. A Diploma candidate may opt to take no more than four Higher Level courses and no less than two Standard Level courses. Many of these classes require two years for completion. HL classes can be tested in the senior year only. More specific information about each group is given in the following pages. Candidates for Diploma Program Certificate choose classes and levels they wish to take. The course requirements are identical for Diploma and Certificate Candidates. The Standard Levels and Higher Levels of a course have the same core curriculum. Higher Levels have a more extensive curriculum, more demanding internal assessment requirement, and more instructional time requirements than Standard Level. Because the core curriculum is the same, some classes contain both Higher and Standard Level students.



**Figure IB 3: The IB Diploma Requirements**

### What are the requirements in the middle of the hexagon?

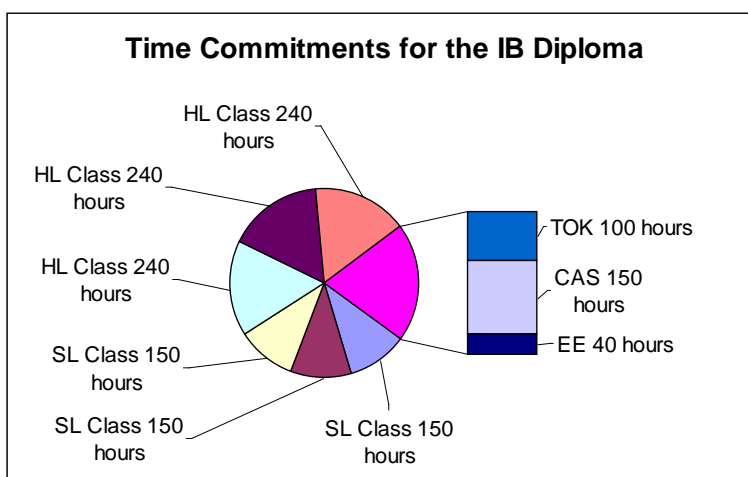
The IB Diploma Program is illustrated in the hexagonal diagram (Figure IB 3). The center of the hexagon contains the three components that are unique to the Diploma Program: TOK, CAS, and EE.

- The TOK class explores how we learn and how our ways of acquiring knowledge may vary among disciplines. The student's grade for this class is based upon an essay that is evaluated by examiners outside the school and an oral presentation that is the internally assessed component of this course. Some universities give credit in Philosophy for this class. See the last page of Your 9-12 IB Course Planner which follows for information about TOK class scheduling.
- The Extended Essay showcases a student's research, writing, and analytical skills. A student selected supervisor, a SLHS teacher with specific knowledge of the topic, monitors the process. The Extended Essay is evaluated by IB examiners outside the school. Extended Essay groups meet monthly with the IB Coordinator.

- The Creativity-Action-Service component provides the student with opportunities to interact meaningfully within our local and international communities. Students must accumulate 50 hours in each of the categories for a total of 150 hours over the two-year period. A team of 4 CAS coordinators work with students using Manage BAC, an on-line program for IB Diploma candidates which helps them track and record their progress in CAS. A preliminary plan is submitted to the CAS Supervisor for approval before the student begins. When the projects or tasks are completed, the candidate is asked to reflect upon the value of the experience. Students meet quarterly with CAS coordinators.

### Why are some IB SL classes 2 years and a few others only one year?

IB courses are meant to be 2 years in duration but with the school schedules of North American Schools, a few courses can be offered in a one year format. The required course content can be completed in the time budgeted for a class during a year of school however for most IB classes, the curriculum is more extensive than can be completed in one year. Exceptions are IB Biology SL, IB Business and Management SL, IB Math Studies SL and IB Computer Science SL at our school. Please look carefully at your course selections. Do not schedule more than two one year courses. All HL courses must be taught over two years and tested in the senior year. The one year SL courses can be completed in the junior year.



**Figure IB 4: Basic Time Commitments for IB Diploma Students**

### IBCC Students

The IBCC incorporates the educational principles, vision and learner profile of the IB into a unique offering that specifically addresses the needs of students who wish to engage in career-related education. The IBCC encourages these students to benefit from elements of an IB education, through a selection of two or more Diploma Program courses in addition to a unique IBCC core, comprised of an approaches to learning (ATL) course, a reflective project, language development and community and service.

This new qualification is designed to provide a "value added" educational offering to schools that already offer the IB Diploma Program and are also delivering career-related courses to their students.

The IBCC enables schools to widen participation to an IB education. Schools retain the ability to choose the career-related courses that are most suited to local conditions and the needs of their students. Schools gain the added flexibility in direct curriculum development as well as the IBCC core to create an educational pathway that puts a strong focus on individual student needs.

## **IB Diploma Courses**

Diploma Course students take IBDP classes but do not wish to pursue the full IB Diploma. They receive **IB certification of their completed courses. In IB classes these students must meet the same standards** and fulfill the same class requirements as full Diploma candidates. They may choose to take one or more IB classes as Diploma Course students. They do not take TOK, write an Extended Essay, or complete the CAS requirement. Their scores are sent to colleges and universities in exactly the same way as for full diploma students.

### **Don't confuse the MYP Certificate with the IBDP Certification**

The Diploma program certification represents completion of specific 11<sup>th</sup>/12<sup>th</sup> grade courses. The MYP Certificate represents a combination of completed 9<sup>th</sup> and 10<sup>th</sup> grade courses and completion of a personal project.

### **University Acceptance of IB Diploma Candidates**

The value of the IBDP is recognized by colleges and universities. Many of these schools give preferential acceptance to students completing the requirements for the IB Diploma. Many colleges and universities award credit or advanced placement to students for IB Diploma Program classes, but the credit awarded varies at each university. To learn more about the policy of schools you are considering, go to [www.ibo.org](http://www.ibo.org). In the left margin find "The IB in United States."

You can review information about IB credits awarded by some universities by going to [http://www.fcps.edu/SouthLakesHS/ib\\_assets/AP%20and%20IB%20College%20Credit.pdf](http://www.fcps.edu/SouthLakesHS/ib_assets/AP%20and%20IB%20College%20Credit.pdf)

### **How do colleges find out about your grades from your high school classes and your scores from IB?**

Your SLHS/FCPS transcript sent to colleges and universities with your application is clearly marked "IB Diploma Candidate" if you are a Diploma candidate in good standing. "In good standing" means that in addition to earning acceptable grades in your 6 IB classes, you have turned in a completed draft of your Extended Essay, are making progress in your TOK class, and are earning your CAS hours. The transcript of Certificate candidates indicates the IB course or courses being taken.

After your graduation, the IB Coordinator requests that the results of your IB work be sent to your college of choice. It is important that the SLHS Career Center has your correct college of choice on file when you graduate so this can be sent. In July after your graduation IB Americas sends your official scores to the admissions office or registrar of the collage you indicated to the Career Center.

# Your 9-12 IB Course Planner

Use the information in this planner to decide the courses you will take to fulfill the requirements for the IB Diploma or certificates you seek. Course sequences listed in this planner fit the needs of most students but are not always the only options available. Students with unique situations should discuss their course sequences with their teacher, Guidance Counselor, and the IB Coordinator.

## Group 1: Language A1—English Recommended Course Sequence for English A1

Grade 9	Honors English 9*	English 9
Grade 10	Honors English 10* (or teacher recommendation)	Honors English 10* (or teacher recommendation)
Grade 11	IB English 1 HL**+	IB English 1 HL**+
Grade 12	IB English 2 HL **	IB English 2 HL**

+Virginia Standards of Learning test is taken at the end of this course.

\*Weighted .5

\*\* Weighted 1.0

## Group 1 Important Reminders

- Honors English courses introduce students to the skills, assessment techniques, and analytical expectations needed in IB English.
- The Virginia Standards of Learning (SOL) exam in writing and reading/literature must be taken as scheduled.
- Students successful in English-9 and English -10 are eligible for IB English I.

## Group 2: Language B—Recommended Course Sequences for French, German, Japanese, Spanish, Latin

Grade 9	French 2	German 2	Japanese 2	Spanish 2	Latin 1	Latin 2
Grade 10	French 3	German 3	Japanese 3	Spanish 3	Latin 2	Latin 3
Grade 11	IB French** 1	IB German**1	IB Japanese 1**	IB Spanish 1**	Latin 3	IB Latin 1**
Grade 12	IB French 2 HL or SL**	IB German 2 HL or SL**	IB Japanese 2 SL**	IB Spanish 2 HL or SL**	IB Latin SL**	IB Latin 2 SL **

\*\*Weighted 1.0

## Group 2 Important Reminders

- The sequence above applies to the majority of students wishing to continue through the Diploma language program. Teachers will assess student’s skills and knowledge level in French, Spanish, Japanese, Latin or German, and place him or her in the appropriate course.
- All World Language students except those in Latin are required to complete an oral component of examination. Because there is no spoken component for Latin this course can be completed in four years.
- Based upon performance and teacher assessments, a student can opt to take either the Standard Level or the Higher Level exam. The exception is the ab initio option, which is offered and examined **only** at SL.
- IB Full Diploma Program Candidates pursuing Higher Level exam must complete the two-year sequence during their 11<sup>th</sup> and 12<sup>th</sup> grades. Students pursuing a Standard Level exam can complete the course in Grade 11 or Grade 12.
- IB Latin is the culminating course in a four-year sequence and is offered only at the Standard Level. IB Latin SL is weighted with an additional 1.0 credit.

## Group 3: Individuals and Societies—Recommended History Sequence OR Business and Management Option

Grade 9	Honors World History and Geography 2*+		
Grade 10	AP Comparative Government*		
Grade 11	IB History 1**+	IB Business and Management SL**++	
Grade 12	IB History 2 HL or SL **	Business and Management 2 HL **++	IB Business and Management SL**

\*Weighted 0.5

\*\*Weighted 1.0

+Virginia Standards of Learning Test is taken at the end of each of these courses.

++IB Business and Management **does NOT** fulfill Social Studies requirements for the Virginia Diploma.

## Group 3 Important Reminders

- Students may take the World History 1 and 2, US/VA History, US/VA Government classes to satisfy the VA diploma requirements and still receive the IB Diploma by completing IB Business and Management SL or HL for their Group 3 requirement.
- Students in Honors History and AP Government classes will be introduced to the research and study skills, assessment techniques, and analytical expectations intended to support their efforts in the IB Diploma Program History classes.

- If a student begins the Honors History, AP Government, IB History 1 and 2 sequence but decides not to complete this IB Diploma Program History sequence at any time, that student must complete the **four** history/government courses required for graduation by the state of Virginia.
- Students who have taken IB History 1 and IB History 2 may opt to take either the Higher Level or Standard Level exam. The Standard Level exam covers material from IB History II only. The Higher Level exam covers material from both IB History 1 and IB History 2.

## Group 4: Experimental Sciences—Some Course Sequence Options in Biology, Chemistry, and Physics

### IB Science Course Options

Grade 9	Biology 1 or Biology 1 Honors*							
Grade 10	Chemistry 1			IB Chemistry 1*			Computer Science (prerequisite)	
Grade 11	IB Biology SL**		IB Biology 1*	IB Physics 1*	IB Chemistry 2 SL**		IB Computer Science SL**	Computer Science (prerequisite)
Grade 12		IB Biology SL**	IB Biology 2 HL**	IB Physics 2 SL**		IB Chemistry 2 HL** OR SL**	IB Computer Science HL**	IB Computer Science SL**

\*0.5 weighted

\*\*1.0 weighted

### Group 4 Important Reminders

- Students should decide as soon as possible what IB science course and level they wish to pursue. These options fulfill the requirement for the IB Diploma but not necessarily the requirements for the Virginia Diploma. Please check to see the number of sciences you must take for your Virginia Diploma. If a student changes his/her mind about the IB course or level, the IB coordinator and the guidance counselor need to be consulted to insure that the changed sequence meets requirements for both Virginia and IB Diplomas.
- Students must complete *both* years of an IB science before they can take either an HL or an SL science exam. The only exception is SL Biology which can be completed in one year. IB Diploma Program Candidates pursuing a science HL exam should plan to complete the two-year IB course sequence during the 11<sup>th</sup> and 12<sup>th</sup> grades. Students pursuing a science SL exam can complete the course *either* in Grade 11 or 12.
- All IB Group 4 Experimental Science students (both SL and HL) must complete an interdisciplinary science Group 4 project. This project involves working in a team of students from other science disciplines to design an experiment focused on a selected topic. Your IB science teacher will give you more information and a schedule for this Group 4 Project.

## Group 5: Mathematics—Recommended course sequences for Math Studies, Mathematics SL, Mathematics HL

Grade 9	Algebra 1	Honors Geometry *+				Honors Algebra 2*+		
Grade 10	Honors Geometry*+	Algebra 2*+	Honors Algebra 2*+			IB Math SL 1*	IB Math HL 1**	Pre Calculus
Grade 11	Honors Algebra 2*+	Pre Calculus	Pre Calculus	IB Math SL 1**	IB Math HL 1**	IB Math HL 1*	IB Math HL 2**	IB Math SL 1*
Grade 12	IB Math Studies SL**	IB Math Studies SL**	IB Math Studies SL **	IB Math SL 2**	IB Math HL 2**	IB Math HL 2**	Multivariable calculus/Matrix Algebra**	IB Math SL 2**

\*Weighted 0.5

\*\*Weighted 1.0

+Indicates courses for which Virginia Standards of learning (SOL) exams must be taken.

### Group 5 Important Reminders

As students and parents plan their IB mathematics sequence, they should consider several characteristics of the program:

- Teacher recommendations are strongly considered in student placement in math classes.
- Diploma Program math courses integrate or mix topics within each course. This integration provides excellent preparation for students as they move on to college-level math courses.

### Group 6: Arts and Electives---Visual Arts, Theater Arts, Music, Computer Science, Business and Management, Additional Foreign Language or Science

Note: Sequencing of Group 6 subjects will vary depending on the course and the prerequisites for that course. The tables below represent the most common options for sequencing. Students are advised to discuss specific sequencing strategies with the teacher(s) of the IB Arts and Elective course(s) in which they are interested.

## Visual Arts Sequence Options\*

Grade 9	Studio Art and Design 1	Studio Art and Design 1	
Grade 10	Studio Art and Design 2 or 3	Studio Art and Design 2	Studio Art and Design 1
Grade 11	IB Visual Arts 1**	IB Visual Arts SL **	IB Visual Arts 1**
Grade 12	IB Visual Arts 2 HL or SL **		IB Visual Arts 2 SL **

\*Several example sequences are given here. Students may consult with Visual Arts teachers to determine the sequence best suited for their situation.

\*\* Weighted 1.0

## Visual Arts Important Reminders

- There are several possible options for prerequisite art courses leading to IB Art. It is important that the student confer with the teacher to discuss these options before scheduling the class.
- Higher Level students are required to complete the IB Visual Arts HL requirements within a two-year period. Standard Level students are encouraged to complete the IB Visual Arts SL requirements within a two-year period, but may do so in one year with permission from and under the supervision of the instructor.
- IB Diploma candidates opting to take IB Art at the higher level must take it during the junior and senior years only.

## Theatre Sequence Options

Grade 9	Theater Arts 1	Theatre Arts 1	Theatre Arts 1
Grade 10	Theatre Arts 2	Theatre Arts 2	Theatre Arts 2
Grade 11	IB Theatre 1**	IB Theatre Arts SL**	Theatre Arts 3
Grade 12	IB Theatre 2 HL or SL **		IB Theatre SL**

\*\*Weighted 1.0

## Theater Arts Important Reminders

Standard Level students are encouraged to complete the IB Theater Arts SL requirements within a two-year period but may do so in one year with permission from and under the supervision of the instructor.

## IB Music Sequence Options

Grade 9	Performance Elective
Grade 10	Performance Elective
Grade 11	IB Music 1** and Advanced Performance Elective
Grade 12	IB Music 2 HL or SL **and Advanced Performance Elective

\*\*Weighted 1.0

## Music Important Reminders

Both Standard Level and Higher Level students must enroll in their respective musical performance classes (vocal or instrumental) every year through the completion of their IB Music course.

- Standard Level IB Music is a two-year course. The SL exam includes theory, history, and group performance.
- Higher Level IB Music is a two-year course that must be completed during students' junior and senior years. The HL exam requirements include theory, history, solo performance, and composition.
- Note: IB Diploma Candidates taking IB Music as their Group 6 requirement **must** allow two periods during their class schedule both junior and senior years to accommodate classes for advanced performance class in orchestra, chorus, or band **and** the IB Music class.
- Due to the performance component of IB Music, students enrolled in this class have priority for enrollment in the 8<sup>th</sup> period (after school) TOK class.

## Additional Group 6 Options

IB Diploma Candidates may substitute an additional Group 2 Foreign Language, Group 3 Business and Management or Group 4 Experimental Science. The student must follow the prescribed course sequence for these elective classes.

### IB Computer Science Options

Grade 9		
Grade 10	Computer Science (prerequisite)	
Grade 11	IB Computer Science SL**	Computer Science (prerequisite)
Grade 12	IB Computer Science HL**	IB Computer Science SL**

\*\*Weighted 1.0.

### IB Business and Management Option

Grade 9			
Grade 10			
Grade 11	IB Business and Management SL**	IB Business and Management SL**	
Grade 12	IB Business and Management HL **		IB Business and Management SL **

\*\*Weighted 1.0

## The Center of the Hexagon: Theory of Knowledge

This course is offered to declared IB Full Diploma Program candidates only. Theory of Knowledge (TOK.) challenges students in the areas of critical thinking and integration of knowledge in an epistemological study. The focus of the course is exploring what we know in the various fields of knowledge and how we know it. Students are led to make connections between their classroom and non-classroom knowledge and experience as they examine the ethics, value judgments, and belief systems of each discipline. Students develop a critical awareness of the fields of knowledge; study the procedures, processes, and methodologies of each field; recognize biases inherent in each discipline; understand and appreciate the importance of inquiry as a basis for knowledge; and apply standards of logical ways of thinking: analytic, empirical, moral, and aesthetic. **This course is two semesters in length.** The course is begun in second semester of the junior year and completed during the first semester of senior year. An essay evaluated outside the school, and an oral presentation, internally assessed, are required. A score of A-E is awarded for the course. This score combined with the Extended Essay score can earn points to be applied to the total needed to receive the Diploma.

### TOK Schedule Options\*, \*\*

	<b>Plan A:</b> TOK class meeting during the school day	<b>Plan B:</b> “9 <sup>th</sup> period” after school class
<b>Grade 11</b>	<b>Fall Semester:</b> A semester elective is taken <b>Spring Semester:</b> TOK class is taken in the elective time slot	<b>Fall Semester:</b> No class meeting <b>Spring Semester:</b> TOK class meets once weekly from 5 to 8.
<b>Grade 12</b>	<b>Fall Semester:</b> TOK class is taken and completed <b>Spring Semester:</b> A semester elective class is taken	<b>Fall Semester:</b> TOK class meets once weekly from 5 to 8. <b>Spring Semester:</b> No TOK class meetings

*\*Scheduling constraints may limit junior TOK options.*

*\*\*Plan A is recommended for student athletes and others with commitments after school.*

### T.O.K. Important Reminders

- Theory of Knowledge is a one-credit course divided over two semesters and weighted 1.0.

# South Lakes HS

## 2012-2013 COURSE SELECTION SHEET

**Student Name:** \_\_\_\_\_

**Grade Level 2012-2013:** \_\_\_\_\_

**BUSINESS & INFORMATION TECHNOLOGY**

- 632000 ACCOUNTING
- 632100 ADVANCED ACCOUNTING
- 661300 ADVANCED INFORMATION SYSTEMS
- 664100 ADVANCED PROGRAMMING
- 679920 BUSINESS COOPERATIVE INTERNSHIP
- 613232 BUSINESS LAW
- 613632 BUSINESS MANAGEMENT
- 663000 DESIGN, MULTIMEDIA, & WEB TECH
- 612000 ECONOMICS AND PERSONAL FINANCE
- 613508 IB BUSINESS AND MANAGEMENT SL
- 613509 IB BUSINESS AND MANAGEMENT HL
- 661200 INFORMATION SYSTEMS
- 667000 INFO TECHNOLOGY FUNDAMENTALS
- 664000 PROGRAMMING
- 663100 WEB PAGE DEVELOPMENT

**ENGLISH**

- 113000 ENGLISH 9
- 113036 ENGLISH 9 HONORS
- 113095 TRANSITIONAL ENGLISH 9
- 114000 ENGLISH 10
- 114036 ENGLISH 10 HONORS
- 115000 ENGLISH 11
- 115036 ENGLISH 11 HONORS
- 115039 ENGLISH 11 (Semester 1)
- 115009 IB ENGLISH I
- 116000 ENGLISH 12
- 116069 ENGLISH 12 (Semester 2)
- 1160DE ENGLISH 12 DUAL ENROLLMENT
- 116009 IB ENGLISH HL II
- 117100 CREATIVE WRITING 1
- 117200 CREATIVE WRITING 2
- 118060 DEVELOPING LITERACIES
- 151500 EXPANDING LITERACIES
- 144632 FILM STUDY (Semester 2)
- 120000 JOURNALISM 1
- 121000 JOURNALISM 2
- 121100 JOURNALISM 3
- 121200 JOURNALISM 4
- 121500 PHOTOJOURNALISM 1
- 121600 PHOTOJOURNALISM 2
- 121700 PHOTOJOURNALISM 3
- 130032 SPEECH COMMUNICATIONS (Sem 1)

**ENGLISH FOR SPEAKERS OF OTHER LANGUAGES**

- 571014, 15, 16 ESOL LEVEL 2 BEGINNING
- 572091, 92 ESOL LEVEL 3 DEVELOPING
- 573000 ESOL LEVEL 4 EXPANDING
- 312190 INDIVIDUALIZED MATH
- 462260 CONCEPTS SCIENCE – Level 2
- 299660 WORLD CONCEPTS – Level 2

**FAMILY AND CONSUMER SCIENCES**

- 827524 CULINARY ARTS 1
- 827624 CULINARY ARTS 2

**FINE ARTS - DANCE**

- 931100 DANCE 1
- 931300 DANCE 2/MODERN/JAZZ DANCE
- 931500 DANCE 3

**FINE ARTS – THEATRE ARTS**

- 141000 THEATRE ARTS 1
- 142000 THEATRE ARTS 2
- 143000 THEATRE ARTS 3
- 144000 THEATRE ARTS 4
- 143511 TECHNICAL THEATRE 1
- 143512 TECHNICAL THEATRE 2
- 143513 TECHNICAL THEATRE 3
- 143008 IB THEATRE ARTS SL I
- 143009 IB THEATRE ARTS HL I
- 144008 IB THEATRE ARTS SL II
- 144009 IB THEATRE ARTS HL II

**FINE ARTS – MUSIC**

- 923315 INTERMEDIATE BAND (Symphonic)
- 923415 ADVANCED BAND (Symphonic)
- 923416 ADVANCED BAND (Wind Ensemble)
- 924015 JAZZ ENSEMBLE
- 925015 PERCUSSION ENSEMBLE
- 925032 ENSEMBLES – FLAG CORP
- 924515 GUITAR 1
- 924516 GUITAR 2
- 924517 GUITAR 3
- 923815 INTERMEDIATE ORCHESTRA
- 923916 ADVANCED ORCHESTRA
- 925016 STRING ENSEMBLE (Chamber)
- 926015 MIXED CHORUS
- 926017 MEN'S CHORUS (Men's Camerata)
- 926016 WOMEN'S CHORUS (Women's Chorale)
- 928915 ADVANCED MIXED CHORUS (Chamber Singers)
- 928916 ADVANCED WOMEN'S CHORUS (Bella Voce)
- 929615 SHOW/SWING CHOIR
- 922508 IB MUSIC I
- 922608 IB MUSIC SL II
- 922609 IB MUSIC HL II

**FINE ARTS – VISUAL ARTS**

- 912000 STUDIO ART & DESIGN 1
- 913000 STUDIO ART & DESIGN 2
- 914000 STUDIO ART & DESIGN 3
- 914700 STUDIO ART & DESIGN 4: PORTFOLIO PREPARATION GENERAL
- 917560 CERAMICS 1
- 917563 CERAMICS 1 - Fall Semester
- 917564 CERAMICS 1 - Spring Semester
- 917660 CERAMICS 2
- 917667 CERAMICS 2 - Fall Semester
- 917668 CERAMICS 2 - Spring Semester
- 914763 3-D STUDIO ART 3: PORT PREP
- 918011 COMPUTER GRAPHICS 1
- 918111 COMPUTER GRAPHICS 2
- 918211 COMPUTER GRAPHICS 3
- 919911 COMPUTER GRAPH 4: PORT PREP
- 919311 PHOTOGRAPHY 1(Darkroom)
- 919411 PHOTOGRAPHY 2 (Darkroom)
- 919511 PHOTOGRAPHY 3 (Darkroom)
- 915311 VISUAL COMM 1 (Digital)
- 915411 VISUAL COMM 2 (Digital)
- 915511 VISUAL COMM 3 (Digital)
- 914966 IB VISUAL ARTS I (Photography)
- 915166 IB VISUAL ARTS II (Photography)
- 914908 IB VISUAL ARTS I
- 915108 IB VISUAL ARTS SL II
- 914909 IB VISUAL ARTS HL
- 915109 IB VISUAL ARTS HL II

**GENERAL**

- 791312 ARMY JROTC – Level 1
- 791612 ARMY JROTC – Level 2
- 791812 ARMY JROTC – Level 3
- 791912 ARMY JROTC – Level 4
- 980814 AJROTC LEADERSHIP TRAINING
- 980800 SGA LEADERSHIP TRAINING
- 984011 IB APPROACH TO LEARNING 1
- 982008 IB THEORY OF KNOWLEDGE
- 982018 IB THEORY OF KNOWLEDGE - Evening

**HEALTH & PHYSICAL EDUCATION**

- 730000 HEALTH & PE 9
- 740500 HEALTH & PE 10
- 763000 SPORTS MEDICINE
- 764011 PERSONAL FITNESS - LEVEL 1
- 764061 PERSONAL FIT - LEVEL 1 – S1
- 764062 PERSONAL FIT - LEVEL 1 – S2
- 764012 PERSONAL FITNESS - LEVEL 2
- 764063 PERSONAL FIT - LEVEL 2 – S1
- 764064 PERSONAL FIT - LEVEL 2 – S2

**MARKETING**

- 811000 INTRODUCTION TO MARKETING
- 812000 MARKETING 1
- 813000 ADV MARKETING
- 814000 FASHION MARKETING 1
- 814500 FASHION MARKETING 2
- 817500 SPORTS AND ENTER MARKETING
- 817700 ADV SPORTS AND ENTER MKG
- 819920 MARKETING CO-OP – 1 Period
- 819921 MARKETING CO-OP – 2 Periods

**MATHEMATICS**

- 313000 ALGEBRA 1
- 314300 GEOMETRY
- 314336 GEOMETRY HONORS
- 313500 ALGEBRA 2
- 313536 ALGEBRA 2 HONORS
- 316000 PRECALCULUS WITH TRIG
- 315032 TRIGONOMETRY (SEMESTER)
- 315432 DISCRETE MATH (SEMESTER)
- 319062 PROB & STATISTICS
- 319608 IB MATHEMATICS STUDIES SL
- 316308 IB MATHEMATICS SL I
- 319508 IB MATHEMATICS SL II
- 317709 IB MATHEMATICS HL I
- 317009 IB MATHEMATICS HL II
- 317860 MULTIVARIABLE CALCULUS (Sem1)
- 317860 MATRIX ALGEBRA (Semester 2)
- 318400 COMPUTER SCIENCE
- 318508 IB COMPUTER SCIENCE SL
- 318509 IB COMPUTER SCIENCE HL

**SCIENCE**

- 431000 BIOLOGY 1
- 431036 BIOLOGY 1 HONORS
- 439008 IB BIOLOGY SL
- 439009 IB BIOLOGY HL II
- 441000 CHEMISTRY 1
- 441007 IB CHEMISTRY I
- 449008 IB CHEMISTRY II SL
- 449009 IB CHEMISTRY II HL
- 451000 PHYSICS 1
- 451050 ACTIVE PHYSICS
- 451007 IB PHYSICS I
- 459008 IB PHYSICS II SL
- 459009 IB PHYSICS II HL
- 422000 GEOSYSTEMS
- 422036 GEOSYSTEMS Honors
- 422067 GEOSPATIAL ANALYSIS

**SOCIAL STUDIES**

- 221900 WORLD HISTORY & GEOGRAPHY 1
- 222100 WORLD HISTORY & GEOGRAPHY 2
- 222136 WORLD HISTORY & GEOG 2 HONORS
- 236000 VIRGINIA AND US HISTORY
- 236036 VIRGINIA AND US HISTORY HONORS
- 244000 VIRGINIA AND US GOVERNMENT
- 244504 ADV PLACEMENT GOVERNMENT
- 236009 IB HISTORY I: HOA
- 236108 IB HISTORY II: TOPICS SL
- 236109 IB HISTORY II: TOPICS HL
- 290032 PSYCHOLOGY (Semester 1)
- 250032 SOCIOLOGY (Semester 2)
- 245100 POLITICAL SCIENCE

**TECHNOLOGY EDUCATION**

- 843500 BASIC TECHNICAL DRAWING
- 843800 ADVANCED DRAWING
- 843700 ARCHITECTURAL DRAWING
- 840300 DESIGN AND TECHNOLOGY
- 843600 ENGINEERING DRAWING

**TRADE AND INDUSTRIAL**

- 871026 AUTOMOTIVE SERVICING
- 850624 AUTOMOTIVE TECHNOLOGY 1
- 850724 AUTOMOTIVE TECHNOLOGY 2
- 850824 AUTOMOTIVE TECHNOLOGY 3

**WORLD LANGUAGES**

- 501000 ARABIC 1
- 511000 FRENCH 1
- 512000 FRENCH 2
- 513000 FRENCH 3
- 514000 FRENCH 4
- 514208 IB FRENCH I
- 515208 IB FRENCH SL, II
- 515209 IB FRENCH HL, II
- 521000 GERMAN 1
- 522000 GERMAN 2
- 523000 GERMAN 3
- 524000 GERMAN 4
- 524208 IB GERMAN I
- 525208 IB GERMAN SL, II
- 525209 IB GERMAN HL, II
- 591000 JAPANESE 1
- 592000 JAPANESE 2
- 593000 JAPANESE 3
- 594000 JAPANESE 4
- 594208 IB JAPANESE SL I
- 595208 IB JAPANESE SL II
- 531000 LATIN 1
- 532000 LATIN 2
- 533000 LATIN 3
- 534000 LATIN 4
- 537008 IB LATIN I
- 538008 IB LATIN SL, II
- 551000 SPANISH 1
- 552000 SPANISH 2
- 553000 SPANISH 3
- 554000 SPANISH 4
- 555000 SPANISH 5
- 554208 IB SPANISH SL I
- 554209 IB SPANISH HL I
- 555208 IB SPANISH SL, II
- 555209 IB SPANISH HL, II
- 551100 SPANISH FOR FLUENT SPKRS 1
- 552100 SPANISH FOR FLUENT SPKRS 2
- 553100 SPANISH FOR FLUENT SPKRS 3

**SPECIAL EDUCATION**

- 770000 ADAPTED PHYSICAL EDUCATION
- 788980 BASIC SKILLS I-IV (LD)
- 788989 BASIC SKILLS I-IV (IDS)
- 118080 DEVELOPMENTAL READING
- 118082 DEVELOPMENTAL READING (ID)
- 118089 DEVELOPMENTAL READING (IDS)
- 908361 EDUCATION FOR EMPLOYMENT 1
- 859061 FACILITIES AND GROUNDS MAINT
- 822833 FITNESS AND FOOD – 1<sup>st</sup> Semester
- 822834 FITNESS AND FOOD – 2<sup>nd</sup> Semester
- 781180 FOUNDATIONS OF BIOLOGY
- 781380 FOUNDATIONS OF ENGLISH 9-12
- 781480 FOUNDATIONS OF US/VA HISTORY
- 781080 FOUNDATIONS OF WORLD HIST/GEOG
- 798800 LIFE SKILLS
- 847161 OFFICE TECH & PROCEDURES
- 312080 PERSONAL AND FINANCIAL MATH
- 781580 PERSONAL DEVELOPMENT
- 781800 REINFORCING FOUNDATIONS
- 907161 WORK AWARENESS AND TRANSITION

**ACADEMY COURSES****BUSINESS & INFORMATION TECHNOLOGY**

- 854232 CISCO 1 PART A
- 854332 CISCO 1 PART B
- 854432 CISCO 2 PART A
- 854532 CISCO 2 PART B
- 862232 COMPUTER SYS TECH-A+ LEVEL 1
- 862332 COMPUTER SYS TECH-A+ LEVEL 2
- 665032 NETWORK ADMINISTRATION 1
- 665132 NETWORK ADMINISTRATION 2
- 666032 ORACLE 1
- 666232 ORACLE 2

**ENGLISH**

- 122026 BROADCAST JOURNALISM

**FAMILY AND CONSUMER SCIENCES**

- 823200 CHILD DEV AND PARENTING
- 828527 EARLY CHILDHOOD CAREERS1
- 828627 EARLY CHILDHOOD CAREERS2
- 828027 FASHION DESIGN 1
- 828127 FASHION DESIGN 2

**FINE ARTS – MUSIC**

- 922527 MUSIC AND COMPUTER TECH 1
- 922627 MUSIC AND COMPUTER TECH 2
- 143027 PROFESSIONAL MUSICAL THEATRE AND ACTOR'S STUDIO 1
- 144027 PROFESSIONAL MUSICAL THEATRE AND ACTOR'S STUDIO 2
- 145027 PROFESSIONAL MUSICAL THEATRE AND ACTOR'S STUDIO 3

**FINE ARTS – THEATRE ARTS**

- 143527 ADV TECHNICAL THEATRE 1
- 143567 ADV TECHNICAL THEATRE 2
- 143027 PROFESSIONAL MUSICAL THEATRE AND ACTOR'S STUDIO 1
- 144026 PROFESSIONAL MUSICAL THEATRE AND ACTOR'S STUDIO 2
- 144027 PROFESSIONAL MUSICAL THEATRE AND ACTOR'S STUDIO 2
- 145027 PROFESSIONAL MUSICAL THEATRE AND ACTOR'S STUDIO 3

**HEALTH AND MEDICAL SCIENCES**

- 831027 ANIMAL SCIENCE 1
- 831127 ANIMAL SCIENCE 2
- 832827 DENTAL CAREERS 1
- 832927 DENTAL CAREERS 2
- 830226 EXPLORING HEALTH SCIENCES
- 838326 EXPLORING THE LANG OF MED
- 833326 FIRE AND EMER MEDICAL SCI 1
- 833426 FIRE AND EMER MEDICAL SCI 2
- 834526 MEDICAL ASSISTANT 1
- 834626 MEDICAL ASSISTANT 2
- 830526 PHARMACY TECHNICIAN 1
- 830626 PHARMACY TECHNICIAN 2
- 836527 PHYSICAL /OCCUP THERAPY 1
- 836627 PHYSICAL /OCCUP THERAPY 2
- 835726 PRACTICAL NURSING 1
- 835826 PRACTICAL NURSING 2

**MARKETING**

- 813223 CLASSROOM-ON-THE-MALL: MARKETING MANAGEMENT
- 814523 CLASSROOM-ON-THE-MALL: FASHION MARKETING 2
- 909326 ENTREPRENEURSHIP 1
- 909416 ENTREPRENEURSHIP 2
- 816026 INTRO TO HOTEL MARKETING
- 816027 HOTEL MARKETING 1
- 816227 HOTEL MARKETING 2

**MATHEMATICS**

- 316326 ENGINEERING MATHEMATICS

**SCIENCE**

- 451026 ENGINEERING PHYSICS 1
- 452026 ENGINEERING PHYSICS 2

**TECHNOLOGY EDUCATION**

- 848726 AEROSPACE SCIENCE 1
- 848826 AEROSPACE SCIENCE 2
- 841600 ELECTRONICS 1
- 451026 ENGINEERING PHYSICS 1
- 452026 ENGINEERING PHYSICS 2
- 845126 ENGINEERING SYSTEMS 1
- 845226 ENGINEERING SYSTEMS 2
- 842326 GEOGRAPH INFO SYS1
- 845326 INDEPEND RESEARCH-ENGIN
- 849000 STEM ENGINEERING

**TRADE AND INDUSTRIAL**

- 867627 AUTOMOTIVE COLLISION SERV1
- 867727 AUTOMOTIVE COLLISION SERV 2
- 860127 CARPENTRY 1
- 860227 CARPENTRY 2
- 851562 CONSTRUCTION TECH 1- SPRING VILLAGE RESIDENTIAL CONSTRUCTION SITE
- 851662 CONSTRUCTION TECH 2 - SPRING VILLAGE RESIDENTIAL CONSTRUCTION SITE
- 852727 COSMETOLOGY 1
- 852827 COSMETOLOGY 2
- 852927 COSMETOLOGY 3
- 870226 CRIMINAL JUSTICE 1
- 870327 CRIMINAL JUSTICE 2
- 853327 ELECTRICAL CONSTRUCTION AND ENGINEERING 1
- 853427 ELECTRICAL CONSTRUCTION AND ENGINEERING 2
- 850327 HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION 1
- 850427 HEATING, VENTILATION, AIR CONDITIONING, AND REFRIGERATION 2
- 803627 LANDSCAPE ARCHITECTURE AND TURF MANAGEMENT 1
- 805127 LANDSCAPE ARCHITECTURE AND TURF MANAGEMENT 2
- 860727 PROFESSIONAL PHOTOGRAPHY STUDIO 1
- 860827 PROFESSIONAL PHOTOGRAPHY STUDIO 2
- 868827 PROFESSIONAL TELEVISION PRODUCTION 1
- 868927 PROFESSIONAL TELEVISION PRODUCTION 2

**WORLD LANGUAGES**

- 581026 CHINESE 1 OTHER \_\_\_\_\_
- 587026 KOREAN 1 OTHER \_\_\_\_\_



# MYP/ IB REGISTRATION WORKSHEET AND PLANNING GUIDE

Name \_\_\_\_\_ Grade Now \_\_\_\_\_ **Diploma Type** ( ) 20 ( ) 22 ( ) 24 ( ) 26  
( ) ACP ( ) MYP Certificate ( ) MYP RoA ( ) IB Certificate ( ) IB Diploma

To help you plan your schedule, please do the following:

1. Read South Lakes High School's Course Offering Guide section on International Baccalaureate Program.
2. Review math, English, science and social studies sequences (listed below).
3. Talk to your teachers, parents, friends, classmates and counselor.

### Math Sequences:

Algebra 1 Part 1	OR	Algebra 1*	OR	Algebra 1*	OR	Algebra 1*
Algebra 1*		Geometry*		PreIB Geometry*		PreIB Geometry*
Alg. 1 Part 1 / Alg 1		Algebra 2*		PreIB Algebra 2*		PreIB Algebra 2*
Geometry*		PreIB PreCalculus or		IB Mathematics 1 SL		IB Higher Math 1 HL
Algebra 2*		Trig/Prob Stats		IB Mathematics 2 SL		IB Higher Math 2 HL
		IB Math Studies SL				Multi-Variable Calculus/ Differential Equations

### Science Sequences:

Biology\* or PreIB Biology\*  
(Algebra 1 pre-requisite)  
or IB Chemistry 1\*

*Students who plan to pursue the IB diploma or IB certificate Chemistry\* in science can choose a program in science that best fits their interests. Check science options in the Course Description Guide.*

Geosystems\* or IB Biology I or IB Chemistry 2

Physics or Active Physics or IB Physics I and 2 or IB Biology 2 HL

### Social Studies Sequences:

Grade 9: World Geography & History 1*	OR	PreIB World Geography & History 2*
Grade 10: World Geography & History 2*		PreIB Government/ AP Government
Grade 11: US/VA History*		IB History of the Americas*
US/VA Government		IB History II World Topics

### English Sequences:

English 9 or Pre IB English 9  
English 10 or Pre IB English 10  
English 11\* or IB English 1  
Grade 12:  
English 12\* or IB English 2 or  
Dual Enrollment English 12(NVCC)

\* Courses that have End-of-Course Standards of Learning (SOL) exams.

Economics and Personal Finance Year Taken \_\_\_\_\_

### Grade 9

1. English 9 Level \_\_\_\_\_
2. Language Level \_\_\_\_\_
3. World History/Geog Level \_\_\_\_\_
4. Science Level \_\_\_\_\_
5. Math Level \_\_\_\_\_
6. Elective \_\_\_\_\_
7. Health & P.E \_\_\_\_\_

### Grade 10

1. English 10 Level \_\_\_\_\_
2. Language Level \_\_\_\_\_
3. PreIB/AP Comp Gov \_\_\_\_\_
4. Science Level \_\_\_\_\_
5. Math Level \_\_\_\_\_
6. Elective \_\_\_\_\_
7. Health & P.E. 10 \_\_\_\_\_

### Grade 11

1. IB English 1 \_\_\_\_\_
2. IB Language 1 \_\_\_\_\_
3. US/VA History or IB HOA \_\_\_\_\_
4. IB Science \_\_\_\_\_
5. IB Math \_\_\_\_\_
6. IB Arts or Electives \_\_\_\_\_
7. \_\_\_\_\_
8. TOK \_\_\_\_\_

### Grade 12

1. IB English 2 HL or SL \_\_\_\_\_
2. IB Language 2 \_\_\_\_\_
3. 20<sup>th</sup> Cent Topics \_\_\_\_\_
4. IB Science \_\_\_\_\_
5. Math \_\_\_\_\_
6. Art or Elective \_\_\_\_\_
7. \_\_\_\_\_
8. TOK \_\_\_\_\_

\*\*Students who plan to pursue the IB program should discuss the options available w/ their counselor and the IB Diploma Coordinator.

\*Be sure to schedule an advanced performance elective with IB MUSIC

## South Lakes High School Course Recommendation Form 2012-2013

**Student Name:** \_\_\_\_\_ **Current Grade Level:** \_\_\_\_\_

- Students should present this form to all teachers for course recommendations for next school year.
- Students who plan to take an Honors or IB course **MUST** complete this form, including parent signature and return it to the counselor.
- Students should be aware of the expectations, including summer assignments for courses.

The decision to take an Honors or IB course is a serious one. The work in these courses will require the following:

1. Exemplary work habits and time management skills.
2. A genuine desire to learn.
3. Personal responsibility for attendance and work requirements.
4. Self-discipline and the determination to succeed.
5. Completion of summer reading requirements where required.
6. Competence in and a willingness to improve communication skills, especially writing.
7. IB students are required to take end-of-course IB exam(s) in May. (Note that most IB courses are *two-year* courses. Exams in these courses would come at the end of the *second* year.)
8. Students **may not drop** an Honors or IB course during the first quarter of the school year.

Subject	Recommended Course	Teacher Signature <small>Required for Honors &amp; IB courses</small>
English		
Social Studies		
Math		
Science		
Foreign Language		
Health & PE		
Elective		
Elective		

I have seen the above recommended courses for the 2012-2013 school year and understand the commitment and time necessary to ensure my child's success. I also understand the policies regarding course changes as outlined above.

Parent's Signature: \_\_\_\_\_

**Final grades earned in the 2011-12 school year may determine changes in placement for the 2012-2013 school year.**

\_\_\_\_\_  
**Student Signature**

\_\_\_\_\_  
**Parent Signature**