

Robinson Secondary School
Course Selection
2012-2013



ROBINSON HIGH SCHOOL Administrative Staff

Principal	Dan Meier	
Associate Principal	Mike Mukai	
Building Administrator	Bill Evers	
Director of Student Services	Donna Piscitelli	
Assistant Principals	Eric Norland	SS 9
	Deb Duncan	SS 10
	Marty Riddle	SS 11
	Scot Turner	SS 12
Director of Student Activities	Jeff Ferrell	

Student Services Staff Counselors

Enrique Fernandez	A-BRA	703-426-2263
Kelly Ellis	BRE-CUN	703-426-2236
Kirsten Wiley	CUO-GH	703-426-2242
Cijlvere Nute	GI-IS	703-426-2246
Mark Gomperts	IT-LA	703-426-2245
Jim Carter	LE-MES	703-426-2255
Joanie Murphy	MET-PAR	703-426-2252
Desiree Cave	PAS-SALC	703-426-2253
Rick Mulkowsky	SALD-THOMA	703-426-2265
Eugena Smith	THOMP-Z	703-426-2235

Career Center Specialist	Eileen Doyle
Admin. Assistant	Rogelina Brown
Student Information Assistant	Marilyn Weiss
Transcript Admin. Assistant	Susan Baldwin

The Course Selection Process

Dear Student:

Course selection is a serious matter that requires thorough research of the information in this catalog as well as discussion with your counselor, your parents/guardians and your teachers. When selecting courses, you should consider your interests, future educational pursuits and possible job goals. You should also reflect on your own achievements and areas in which you wish to improve. In other words, course selection involves important personal decisions that require your thoughtful attention. We suggest the following:

- Review requirements for each type of diploma
- Review course descriptions and prerequisites
- Consider your personal educational goals for the high school years and the years after high school
- Discuss with your counselor, teachers and parents/guardians any concerns or questions you have about courses, credits, and types of diplomas available to you.

Keep in mind that any **changes to your course selections must be made prior to June 25, 2012**, so take the time to make wise decisions now. Finally, be certain to contact your counselor as soon as possible if you have any questions. Do not hesitate to ask questions!

Donna Piscitelli

Director of Student Services

Robinson Secondary School

INTERNATIONAL BACCALAUREATE (IB) PROGRAM

The mission of the Robinson International Baccalaureate program is to provide highly self-motivated learners with a rigorous, comprehensive and compassionate course of study, preparing students for the challenges they will meet after high school. Interdisciplinary in approach with an emphasis on imagination and creativity, the IB curriculum focuses on the students' ability to analyze, think critically, problem solve and ultimately apply what they have studied. As an IB site, Robinson Secondary School will provide opportunities for students and staff to continue to work towards consistently higher standards, striving to develop a further appreciation of learning as a reward in itself. Students will view themselves as citizens of both the local and international communities who possess a strong global awareness and recognition of their responsibility and commitment to others.

The International Baccalaureate Diploma is recognized by colleges and universities throughout the world and is indicative of outstanding preparation for successfully completing college level work. Since each institution of higher learning awards college credit at different levels, each student should contact the specific college or university in which he/she is interested to determine the amount of college credit that will be awarded for successfully completing an IB course or a full IB diploma.

Student work is assessed by their IB teachers through required IB internal assessments and, as on Advanced Placement exams, students are assessed through an external exam. Exams are developed and graded by examiners around the world. To complete a full IB Diploma program, a student must successfully pass courses in six subject areas (subject areas are also referred to as "groups"). Three of the subjects must be at the Higher Level (HL) and three must be at the Standard Level (SL). The six groups or subjects include IB English, IB History, IB Science, IB Foreign Language, and IB Mathematics. The sixth subject may be chosen from IB Art, IB Music, IB Theatre Arts, IB Business and Management, IB Social and Cultural Anthropology, IB Psychology, IB World Religions, IB Philosophy, IB Design and Technology, IB Film Studies or an additional IB offering from world language or science.

It should be emphasized that a student may be eligible to take individual IB courses OR the full IB Diploma. Students who take the full IB Diploma will also receive the State of Virginia Advanced Studies Diploma. **The decision to take the full IB Diploma Program is a serious one that is best made in consultation with the Robinson IB Coordinators, the student's parents/guardians, and the student's counselor.**

The following is a recommended course sequence for IB Diploma candidates. Please contact Ms. Lisa Green or Ms. Wendy Vu, IB Coordinators at Robinson Secondary, for further information (703.426.2254)

Grade 8

Algebra 1
French 1, German 1, Latin 1, Chinese 1, Spanish 1

Grade 9

English 9 HN
World History 2 HN
French 2, German 2, Latin 2, Chinese 2, Spanish 2
Biology HN or Biology Standard
Geometry HN or Geometry Standard
Health and PE 9
Elective

Grade 10

English 10 HN
AP Comparative Government
IB Chemistry I or Standard Chemistry
Algebra 2 HN or Standard
French 3, German 3, Latin 3, Chinese 3, Spanish 3
Health and PE 10
Elective

IB Course Offerings at Robinson

English

IB English I and 2 HL and SL

World Languages

IB Spanish 1 & 2, IB French 1 & 2, IB German 1 & 2,
IB Latin 1 & 2, IB Chinese 1,

INDIVIDUALS AND SOCIETIES

IB History of the Americas, IB Twentieth Century Topics HL,
IB Geography SL, IB Social & Cultural Anthropology SL,
IB World Religions SL, IB Psychology SL & HL, IB Philosophy,
IB Business and Management SL & HL

Grade 11

IB English I HL or SL
IB History of the Americas
IB French I, IB German I, IB Latin I, IB Chinese I or IB Spanish I
Regular Physics I, IB Biology HL I, IB Chemistry SL 2 or IB Physics I
IB Math SL I, Precalculus, or IB Math HL I
IB Theory of Knowledge
Elective, may begin 2 year IB elective

Grade 12

IB English II HL or SL
IB Twentieth Century Topics HL or IB Geography SL
IB French II, IB German II, IB Latin II, IB Chinese II, IB Spanish II
IB Biology HL or SL II, IB Chemistry HL or SL II, IB Physics HL or SL II
IB Environmental Systems SL
IB Math SL II, IB Math HL HL II, IB Math Studies SL
IB Elective

EXPERIMENTAL SCIENCES

IB Chemistry SL & HL, IB Physics SL & HL, IB Biology SL & HL, IB Environmental Systems SL,
IB Design Technology SL

MATHEMATICS

IB Mathematics SL & HL, IB Mathematical Studies

THE ARTS

IB Music SL & HL, IB Visual Arts SL & HL, IB Theatre Arts SL & HL, IB Film SL or HL

All students who enter 9th grade for the first time in 2011 and beyond must complete a full year credit in Economics and Personal Finance in order to graduate from a Virginia high school

**Graduation Requirements
for Students Entering the
9th 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 9th 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 ¹	3	1
Laboratory Science ^{2,6}	3	1
History and Social Sciences ^{3,6}	4	1
Health and Physical Education	2	
Fine Arts or Career and Technical Ed	1	
Electives ⁴	5	
Student Selected Test ⁵		1
Total Credits	22	6

¹Courses 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.

² 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.

³ 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.

⁴ Courses to satisfy this requirement shall include at least two sequential electives.

⁵ 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.

⁶ 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 9th grade for the first time. The following applies to 9th 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.**

Advanced Studies Diploma Course Requirements (8 VAC 20-131-50)		
Subject Area	Standard Credits	Verified Credits
English	4	2
Mathematics ¹	4	2
Laboratory Science ²	4	2
History and Social Science ³	4	2
*World Language ⁴	3	
Health and Physical Education	2	
Fine Arts or Career and Technical Ed	1	
Electives	2	
Student Selected Test ⁵		1
Total Credits	24	9

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

¹ 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.

² 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.

³ 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.

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

⁵ 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 9th 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 8th grade English reading and mathematics Standards of Learning (SOL) tests. Students may substitute a higher level high school SOL test for the 8th 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 9th 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.

Modified Standard Diploma Course Requirements (8 VAC 20-131-50)	
Subject Area	Standard Credits
English	4
Mathematics ¹	3
Science ²	2
History and Social Sciences ³	2
Health and Physical Education	2
Fine Arts or Career and Technical Ed.	1
Electives ⁴	6
Total Credits	20

1

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.

² 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.

³ 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.

⁴ 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 Students Entering the
9th Grade for the First
Time in 2011-2012
and Beyond**

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 9th 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 ¹	3	1
Laboratory Science ^{2,6}	3	1
History and Social Sciences ^{3,6}	4	1
Health and Physical Education	2	
*World Language, Fine Arts or Career and Technical Ed ⁷	2	
Economics & Personal Finance	1	
Electives ⁴	3	
Student Selected Test ⁵		1
Total Credits	22	6

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

¹ 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.

² 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.

³ 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.

⁴ Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.

⁵ 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.

⁶ 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.

⁷ 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 9th grade for the first time. The following applies to 9th 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 ¹	4	2
Laboratory Science ²	4	2
History and Social Sciences ³	4	2
*World Language ⁴	3	
Health and Physical Education	2	
Fine Arts or Career and Technical Ed	1	
Economics & Personal Finance	1	
Electives	3	
Student Selected Test ⁵		1
Total Credits	26	9

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

¹ 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.

² 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.

³ 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.

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

⁵ 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 9th 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 8th grade English reading and mathematics Standards of Learning (SOL) tests. Students may substitute a higher level high school SOL test for the 8th 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 9th 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.

Modified Standard Diploma Course Requirements (8 VAC 20-131-50)	
Subject Area	Standard Credits
English	4
Mathematics ¹	3
Science ²	2
History and Social Sciences ³	2
Health and Physical Education	2
Fine Arts or Career and Technical Ed.	1
Electives ⁴	6
Total Credits	20

¹ 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.

² 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.

³ 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 9th 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.**

Standard Technical Diploma Course Requirements (8 VAC 20-131-50)		
Subject Area	Standard Credits	Verified Credits
English	4	2
Mathematics ¹	3	1
Laboratory Science ^{2,5}	3	1
History and Social Sciences ^{3,5}	4	1
Health and Physical Education	2	
Fine Arts or *World Language	1	
Economics & Personal Finance	1	
Career and Technical Education ⁴	4	
Student Selected Test ⁶		1
Total Credits	22	6

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¹ 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.

² 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.

³ 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.

⁴ 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.

⁵ 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.

⁶ 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.**

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

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

¹ 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.

² 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.

³ 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.

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

⁵ 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.

⁶ 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

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.)

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

NOTES

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/RobinsonSS/publications/pdf/Request%20to%20expunge%20courses.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 th 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/creditema/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 9th and 10th grade levels, and the Advanced Placement (AP) or International Baccalaureate (IB) programs at the 10th, 11th, and 12th 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 Word 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

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

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

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.

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	

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.

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.

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.

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.

DESIGN, MULTIMEDIA, AND WEB TECHNOLOGIES (663000)

Grades: 9, 10, 11, 12

Credit: one

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.

IB BUSINESS AND MANAGEMENT HL (613509)

Grades: 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.

IB BUSINESS AND MANAGEMENT SL (613508)

Grades: 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.

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

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 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 HN (113036)

Grades: 9

Credit: one/weighted +.5

Prerequisite: English 8

Required Summer Assignment

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.)

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 HN (114036)**Grades: 10****Credit: one/weighted +.5****Prerequisite: English 9****Required Summer Assignment**

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.

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

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.

IB ENGLISH LITERATURE I SL HN (115008)**Grades: 11****Credit: one/weighted +1.0****Prerequisite: English 10**

This is the first year of a two-year college-level intensive 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 SL together with IB English Literature II SL prepares students for the standard level exam.

IB English SL includes fewer texts and moves at a slower pace than the HL course

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.

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.

Required summer assignment

IB ENGLISH LITERATURE II SL (116008)**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 standard level English Literature IB exam.

AP ENGLISH LITERATURE AND COMPOSITION HN (119504)**Grades: 12****Credit: one/weighted +1.0****Prerequisite: English 11**

Students study composition and literary analysis at a level equivalent to that of a full-year introductory college course. Through in-depth studies of literary works, students sharpen their awareness of language and their understanding of the writer's craft. They establish critical standards for appreciating and evaluating literature. Students who complete this course are prepared to take the Advanced Placement examination in English Literature and Composition, and may earn college credit if a qualifying score is achieved. Completion of this course fulfills the English 12 course requirement.

Required summer assignment

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.

JOURNALISM 4 (121200)**Grades: 12****Credit: one****Prerequisite: Journalism 3**

In Journalism 4 students learn marketable publications skills; develop individual writing, layout, and design styles; and may assume editorial leadership and responsibility for producing a high school newspaper and/or student produced webpage. Journalism 4 students will also take responsibility for being the chief spokespeople for the publication. Students also take responsibility for business and circulation management. This course requires some after school time.

BROADCAST JOURNALISM (122000)**Grades: 9, 10, 11, 12****Credit: one**

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.

BROADCAST JOURNALISM 2 (122012)**Grades: 10, 11, 12****Credit: one****Prerequisite: Broadcast Journalism 1**

In this course, students will continue to 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.

BROADCAST JOURNALISM 3 (122013)**Grades: 11, 12****Credit: one****Prerequisite: Broadcast Journalism 2**

In this course, students will expand their learning and practice the language and processes of broadcast journalism and reporting. They will become proficient at producing the news while understanding of the role and responsibilities of broadcast journalists.

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

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.

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.

CREATIVE WRITING 3 (117300)**Grades: 11, 12****Credit: one****Prerequisite: Creative Writing 2**

This course provides students an opportunity to study creative writing at an advanced level through a collaborative workshop approach. Students continue to experiment with many forms of writing, with an emphasis on poetry, short stories, plays, and all forms of descriptive writing. Students work independently and through peer critique groups to refine their writing and develop a sense of voice. Students may also participate in the layout, design, and overall production of a high school literary magazine.

THE STUDY OF SHAKESPEARE (116500)**Grades: 9, 10, 11, 12****Credit: one**

The goal of this course is to cultivate or enhance the student's enjoyment and appreciation of the plays of William Shakespeare. The course will focus particularly on Shakespeare's comedies and other plays not regularly taught in high school but the exact slate of plays to be studied will be determined by student interest. The Study of Shakespeare is accessible to all students, regardless of their experience with Shakespeare; assignments are completed *in class* with the assistance of the instructor. This course will fulfill the graduation requirement for a credit in fine and practical arts.

ADVANCED COMPOSITION 1 (117700)**Grades: 10, 11, 12****Credit: one**

This course provides students an in-depth study of writing in the academic disciplines. Students improve their writing through intense word study, critical reading, and analytical thinking. Students expand and refine their ability to write through analyzing and evaluating their own writing and that of others. Students may also participate in the school's writing center.

SPEECH COMMUNICATION (130000)**Grades: 9, 10, 11, 12****Credit: one**

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.

FILM STUDY (144600)**Grades: 10, 11, 12****Credit: one**

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.

IB FILM STUDY I SL (144608)**Grades: 11****Credit: one/weighted +1.0**

This is the first year of a two-year course that involves the study of international film texts, film theory, and practical exercises in filmmaking and analysis. At the core of the IB film course lies a concern with clarity of understanding, critical thinking, reflective analysis, effective involvement, and imaginative synthesis that is achieved through the practical engagement of film. Students are required to create film projects as well as analyze film in writing and oral presentations. IB Film Study 1 SL together with IB Film Study 2 SL prepares students for the standard level exam.

IB FILM STUDY II SL (144658)**Grades: 12****Credit: one/weighted +1.0**

This is the second year of a two-year course that involves the study of international film texts, film theory, and practical exercises in filmmaking and analysis. The course is available to students who have completed the first year of IB Film Study and wish to continue to pursue a rigorous study of film production. At the core of the IB film course lies a concern with clarity of understanding, critical thinking, reflective analysis, effective involvement, and imaginative synthesis that is achieved through the practical engagement of film. Students are required to create film projects as well as analyze film in writing and oral presentations. Students will study at least two films from more than one country and create and produce an original film as part of a team or as an individual. By the end of the second year of SL, students will have created an annotated list of sources for documentaries, presented an oral detailed textual analysis of a film scene, and completed a film project.

IB FILM STUDY II HL (144659)**Grades: 12 Credit: one/weighted +1.0**

This is the second year of a two-year course that involves the study of international film texts, film theory, and practical exercises in filmmaking and analysis. The course is available to students who have completed the first year of IB Film Study and wish to continue to pursue a rigorous study of film production. At the core of the IB film course lies a concern with clarity of understanding, critical thinking, reflective analysis, effective involvement, and imaginative synthesis that is achieved through the practical engagement of film. Students are required to create film projects as well as analyze film in writing and oral presentations. Students will study at least four films from more than one country. By the end of the second year of HL, students will have created an extended annotated list of sources for documentaries, presented an oral detailed textual analysis of a film scene, and completed a film project and associated trailer.

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES

ESOL LEVEL 1 ENTERING (571011)**Grades: 9, 10, 11****Credit: one**

Students engage in listening, speaking, reading and writing English through an integrated language arts curriculum. The class is aligned with English 9 Language Arts standards. Students take three periods of ESOL classes: two content-based and one literature-based. Students develop language and literacy skills and content vocabulary through science and social studies topics. Students enrolled in this course also take 571012 and 571013. These courses earn elective credit and may be repeated.

ESOL LEVEL 2 BEGINNING (571014)**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)**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

GOURMET AND INTERNATIONAL FOODS (825900)

Grades: 9, 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.

FITNESS AND FOOD (822832)

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.

LIFE PLANNING (822632)

Grades: 9, 10, 11, 12

Credit: one-half

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.

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

CHILD DEVELOPMENT AND PARENTING (823200)

Grades: 9, 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.

EARLY CHILDHOOD CAREERS 1 (828524)

Non-academy

Grades: 10, 11, 12

Credit: two

(Sites have cooperative education experiences for students through the FCPS Head Start Program.)

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 (828624)

Non-academy

Grades: 11, 12

Credit: two

Prerequisite: Early Childhood Careers 1 (828524)

(Sites have cooperative education experiences for students through the FCPS Head Start Program.)

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.

CULINARY ARTS 1 (827527)

Grades: 11, 12

Credit: two

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

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. 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.

CULINARY ARTS 2 (827627)

Grades: 11, 12

Credit: two

Prerequisite: Culinary Arts 1 (827527)

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

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. 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.

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.

FINE ARTS DANCE

DANCE 1 (931127)

Grades: 11, 12

Credit: two

Prerequisite: Successful Audition (Selected sites or transportation may be provided to Fairfax Academy or West Potomac Academy)

Students will develop skills in basic movement fundamentals, placement and alignment, and beginning dance technique for selected dance forms (modern, jazz, ballet). Students will also develop dance vocabulary, study dance history, gain competence in critiquing skills, learn improvisational skills, and develop performance skills. For more information, visit the academy web site.

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

DANCE 2/MODERN/JAZZ DANCE (931327)

Grades: 11, 12

Credit: two

Prerequisite: Dance 1 or Successful Audition

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

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. For more information, visit the academy web site.

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

DANCE 3 (931527)

Grades: 11, 12

Credit: two

Prerequisite: Dance 2 or Successful Audition (Selected sites or transportation may be provided to Fairfax Academy or West Potomac Academy)

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. For more information, visit the academy web site.

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

DANCE 4 (931927)

Grades: 12

Credit: two

Prerequisite: Dance 3 or successful audition. (Selected sites or transportation may be provided to Fairfax Academy or West Potomac Academy)

Dance 4 students are advanced level dancers who display a mastery of jazz, ballet and modern technique as well as performance excellence on stage and in the rehearsal studio. Students will deepen their understanding of choreographic techniques and have the opportunity to explore and develop their own voice in creating movement and critiquing the choreography of others. The course will focus on preparing the dancer for post-high school opportunities in the professional dance field including: professional company auditions, teaching and/or choreographing for a dance studio or theatre, and earning a degree in Dance Performance or Dance Education. For more information, visit the academy web site. This course requires a student materials fee as listed in FCPS Notice 5922.

FINE ARTS MUSIC

BEGINNING BAND Concert 1 (923215)

Grades: 9, 10, 11, 12

Credit: one

Students develop skills as individual musicians and as members of a musical group. Guidance will be given by the instructor in the selection of an instrument. Course content includes beginning level technical and ensemble skills necessary for performance. Some performance opportunities are provided. Marching band techniques and performances may be included. 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.

Students develop skills as individual musicians and as members of a musical group. Guidance will be

INTERMEDIATE BAND Concert 2 (923315)

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: Beginning Band or successful audition

Students continue developing as individual musicians and as members of a musical group. Emphasis is placed on the development of intermediate level technical and ensemble skills necessary for performance. Marching band techniques and performances may be included. Students must meet both the school day and after-school participation requirements to receive credit for the course. This course requires a student materials fee as listed in FCPS Notice 5922.

INTERMEDIATE BAND Concert 3 (923316)**Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Beginning Band or successful audition**

Students continue developing as individual musicians and as members of a musical group. Emphasis is placed on the development of intermediate level technical and ensemble skills necessary for performance. Marching band techniques and performances may be included. 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 Concert 4 (923415)**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 Symphonic Band (923417)**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.

PERCUSSION ENSEMBLE Concert 3 (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.

BEGINNING ORCHESTRA (923715)**Grades: 9, 10, 11, 12****Credit: one**

Students develop skills as individual musicians and as members of a musical group. Course content includes beginning level technical and ensemble skills necessary for performance. Some performance opportunities are provided. Students must meet both the school day and after-school participation requirements to receive credit for the course.

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

INTERMEDIATE ORCHESTRA Sinfonia (923815)**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.

INTERMEDIATE ORCHESTRA HS Concert Orchestra (923816)**Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Successful Audition**

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 Philharmonic (923915)**Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Successful audition**

Students in this course form the representative string performing group for the school. Emphasis is placed on the development of technical, ensemble, and disciplinary skills necessary for refined rehearsal and performance both in and out of school. 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.

STRING ENSEMBLE Chamber Music Ensemble (925016)**Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Successful audition**

Corequisite: Schools may require membership in intermediate or advanced 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.

INTERMEDIATE WOMEN'S CHORUS Women's Camerata (928516)**Grades: 10, 11, 12****Credit: one****Prerequisite: Successful audition.**

Intermediate level women's chorus will provide for the continued study of correct vocal production, sight-singing and development of musicianship 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 Treble Ensemble (926016)**Grades: 9, 10, 11, 12****Credit: one****Prerequisite: none**

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.

MEN'S CHORUS Man Choir (926017)**Grades: 9, 10, 11, 12****Credit: one****Prerequisite: none**

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.

ADVANCED MIXED CHORUS Robinson Singers (928915)**Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Successful audition**

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 Select Women's Ensemble (928916)**Grades: 10, 11, 12****Credit: one****Prerequisite: Successful audition**

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.

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.

MUSIC THEORY (922500)**Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Must be enrolled in a Robinson Performing Ensemble**

Emphasis is placed on developing and understanding basic music theory skills. Course content includes recognizing and notating: all major and minor scales, rhythms in simple and compound meters, and triadic chord structures. Composition skills in standard notation of simple melodies, with accompanying chords and keyboard performance of simple tunes, may also be included. Students will become acquainted with appropriate musical terms.

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

IB MUSIC I (922508)**Standard Level Year 1****Grades 11 and 12, Standard Level****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 HL (922509)

Higher 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 higher level exam at the end of year 2.

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

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.

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 ENSEMBLE Intermediate Guitar Ensemble (924518)

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: Completion of Guitar 1

Students in this course form one of the representative performing guitar ensembles 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. 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 ENSEMBLE Advanced Guitar Ensemble (924519)

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: Successful audition or permission of the instructor

Students in this course form the representative performing guitar ensemble 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. Students must meet both the school day and after-school participation requirements to receive credit for the course. **This course requires a student materials fee as listed in FCPS Notice 5922.**

FINE ARTS THEATRE ARTS

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.

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.

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.

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.

TECHNICAL THEATRE 1 (143511)

Robinson Production Company

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. Upon successful audition, students may be accepted as an actor in the RoProCo class at Robinson.

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. **Students may be assigned as part of the RoProCo Class.**

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. **Students may be assigned as part of the RoProCo Class.**

TECHNICAL THEATRE 4 (143514)

Grades: 9, 10, 11, 12 **Credit:** one
Prerequisite: Audition or permission of the instructor

Students will identify areas of special interest in technical theatre and initiate and complete major research or creative projects in play production. Emphasis is placed on in-depth study and completion of projects, assumptions of leadership roles, and expansion of criteria for self-evaluation. 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. **Students may be assigned as part of the RoProCo Class.**

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.

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.

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.

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.

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.

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.

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. Students can work independently on a variety of projects using Photoshop, Illustrator, Flash and Maya. 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. Students can work independently on a variety of projects using Photoshop, Illustrator, Flash and Maya.

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

PHOTOGRAPHY 1 (919311)**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.

Photo students must have access to a 35mm camera with manual function and will need to purchase film and paper as needed.

PHOTOGRAPHY 2 (919411)**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)**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.

PHOTOGRAPHY 4: PORTFOLIO PREPARATION (919914)**Grades: 12****Credit: one****Prerequisite: PHOTOGRAPHY 3**

Engage in advanced study of photographic processes. Practice the attitude and self-discipline of a working artist. Prepare a final required portfolio evidencing technical proficiency, quality, concentration, and breadth of experience. Apply professional exhibition techniques to exhibit personal work and the work of others. Meet expectations by demonstrating initiative and commitment to communication of ideas through the use of the photographic medium.

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

ANIMATION (918100)**Grades: 10, 11, 12****Credit: one****Prerequisite: COMPUTER GRAPHICS 1**

Learn to use 2-D and 3-D computer software to create animation. Create personally expressive animations and communicate visually in effective ways through the use of modeling, story and character development, and lifelike motion. Become familiar with animation related careers such as game design, animation, film and television special effects.

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

3-D STUDIO ART 1 (919711)*(Ceramics and Sculpture)***Grades: 9, 10, 11, 12****Credit: one****Prerequisite: Studio Art and Design 1 or permission of the instructor**

Develop skills and techniques in the use of materials and equipment to create three-dimensional artworks that may include sculpture, ceramics, architecture, and other three-dimensional art forms. Experiment with a variety of three-dimensional media to improve skills and refine craftsmanship and express ideas in innovative ways. Maintain a required portfolio of personal artwork.

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

3-D STUDIO ART 2 (919712)*(Ceramics and Sculpture)***Grades: 11, 12****Credit: one****Prerequisite: 3-D STUDIO ART 1**

Acquire and apply in-depth knowledge of three-dimensional processes to create original artworks that may include sculpture, ceramics, architecture, and other three-dimensional art forms. Study historical and cultural styles and leading artists of three dimensional art forms to inform the artmaking process. Analyze personal artworks and the work of others through critique and evaluation and apply professional exhibition techniques to arrange a display of selected artworks. Compile a portfolio of personal artwork evidencing 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)*(Ceramics and Sculpture)***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.

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.

*Required summer assignment***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.

*Required summer assignment***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.

*Required summer assignment***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.

*Required summer assignment***GENERAL****IB THEORY OF KNOWLEDGE (982008)****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: Must be an IB Diploma Candidate**

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.

AIR FORCE JUNIOR RESERVE OFFICER TRAINING CORPS**(AFJROTC) (791627)****Aerospace Science 3/ Leadership Education 3****Grades: 9, 10, 11, 12****Credit: two****Prerequisite: Aerospace Science 2; Leadership Education 2****(Chantilly Academy - transportation may be provided)**

Aerospace Science: The Exploration of Space course is divided into four units. Unit 1, "The Space Environment," discusses our solar system and the challenges facing space explorers. Unit 2, "Space Programs," introduces United States and covers Russian (Soviet), and international space exploration efforts. Unit 3, "Space Technology," examines the means for accessing space and the technology used to exploit its unique properties. Rocket boosters and basic orbital mechanics are introduced. Unit 4, "Manned Spaceflight," details United States manned spaceflight from Mercury to the present. Also included is a discussion of the developing field of space law. Leadership Education 3 is a study of performance counseling and the fundamentals of management, to include theories, financial, and stress management. The philosophy of citizenship and ethics are included. Students are given the opportunity to apply knowledge and techniques useful in dealing with fellow students and the experience of holding a position of leadership of the cadet organization. For the 2012-13 school year, this course is approved for Chantilly Academy only.

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

AIR FORCE JUNIOR RESERVE OFFICER TRAINING CORPS (AFJROTC) (791927)

Aerospace Science 4/Leadership Education 4

Grades: 11, 12

Credit: two

Prerequisite: Aerospace Science 3; Leadership Education 3 (Chantilly Academy - transportation may be provided)

The fourth year curriculum is unique to the others. It offers one of the following three options: Option 1: Management of the Cadet Corps; Option 2: Honors Program - Ground School; Option 3: Civics Course. The Aerospace Science Instructor chooses the option which is best suited for their school. Leadership Education 4 course gives tips on choosing a career, finding a job, and maintaining employment. Students plan and carry out curricular activities. For the 2012-13 school year, this course is approved for Chantilly Academy only.

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

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 economies 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. 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.

GMR (980813)

Grades: 10, 11, 12

Credit: one

Students in this course are responsible for the creation, editing, and production of the Good Morning Robinson news show. Students must be able to work both independently and as part of a team, and have previously demonstrated classroom leadership in small groups. Selected students will be enrolled in the 4th or 5th period GMR leadership class. This class will involve extensive during and after school requirements. Candidates are selected based on the following criteria: Integrity/Dependability, Leadership Potential, Reasonable Grades, Good Attendance Record, Computer Literacy (comfortable with Microsoft Windows and Office), Time Management/Organizational Skills. In order to be considered for this class, students must be recommended by their counselor or a teacher.

SGA (980812)

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.

PEER HELPING I (980760)

Grades: 10, 11, 12

Credit: one

Prerequisite: Successful completion of the selection procedures including application, recommendations, and interview. Approval by the peer helper program instructors and the Director of Student Services is required.

This course is designed to train students to implement a peer helper program in the high school. The training program is designed to develop students' interpersonal, support, and leadership skills for assisting other students to grow socially, emotionally, and academically. Students are taught to help other students (elementary and secondary) by learning to be effective listeners, group leaders, and positive role models. The course presents information and training in the following areas of peer helping preparation: verbal and nonverbal communication, self-exploration and self-esteem, listening skills, decision making/problem solving, peer refusal skills,

substance abuse prevention, confidentiality and referral procedures. Emphasis is placed on experiential learning, supervised group activities, and skills practice.

PACKAGED WITH CARE (980780)

Grades: 10, 11, 12

Credit: one

Prerequisite: Successful completion of the selection procedures including application, recommendations, and interview. Approval by the Packaged with Care instructors and the Director of Student Services is required.

This course is designed to build an inclusive environment where students with and without special needs can work alongside each other while organizing, planning, and implementing service learning projects. Throughout the school year, students will give back to the community through numerous projects. From determining need, finding and writing grants, budgeting, purchasing, delivering, presenting, and writing newsletters, students will learn and experience the various components of contributing to organizations in need throughout the community.

COMPUTER TECHNOLOGY ASSISTANCE (980818)

Grades: 11, 12

Credit: one

Prerequisite: Successful completion of an introductory computer course or approval of course instructor. Technical Assistant Application. Personal Traits and Occupational Skills Rating by each current teacher.

Computer Technology Assistance is an elective course open to students who have a fundamental level of computer hardware and software knowledge. Students will learn advanced level concepts of computer architecture, computer operating systems, network concepts, software maintenance, and advanced computer troubleshooting techniques as they apply their knowledge to the maintenance and support of computers within the school. Students will maintain a weekly journal of their learning experiences that will serve as documentation for potential employment opportunities.

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 (764011)**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 (764012)**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.

ADVANCED PHYSICAL EDUCATION LEVEL 1 (751000)

Grades: 11, 12 Credit: one

Prerequisite: Successful completion of grade 9 and grade 10 health and physical education.

Students continue to learn and master and/or refine lifetime sports activities with emphasis on health and sports related fitness, as they relate to attainment of a healthy lifestyle. *Focus will be on team sports, dual sports as well as personal fitness.* Students may elect this course in grade 11 or grade 12. Students may not take this course in lieu of Health and Physical Education grade 9 or grade 10 course requirements.

ADVANCED PHYSICAL EDUCATION LEVEL 2 (761000)

Grades: 12

Credit: one

Prerequisite: Successful completion of grade 9 and grade 10 health and physical education. Successful completion of Advanced Physical Education Level 1.

Students continue to learn and master and/or refine lifetime sports activities with emphasis on health and sports related fitness, as they relate to attainment of a healthy lifestyle. Students may elect this course in grade 12. Students may not take this course in lieu of Health and Physical Education grade 9 or 10 requirement.

SPORT LEADERSHIP (980800)

Grades: 11, 12

Credit: one

Sport leadership will function as a service oriented class with a focus on sports and sport activities. Students will be introduced to a variety of experiences during the year to become familiar with leadership skills through a sport model focus. Students will learn how to work together to excel in areas of communication, organization, planning, cooperation, and technology. Students will have an understanding of how teamwork and motivation will build leaders to be successful in any field.

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.

MARKETING

INTRODUCTION TO MARKETING (811000)

Grades: 9

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: 9, 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.

ADVANCED MARKETING (813000)**Grades: 11, 12****Credit: one****Prerequisite: Marketing 1 (812000), Fashion Marketing 1 (814000), Sports and Entertainment Marketing (817500), or approval of instructor**

Students have the opportunity to expand their knowledge of marketing from a management perspective. This course focuses on areas to include: ethics, consumer and environmental protection, economics, career development, entrepreneurship, professional sales, marketing-information-management, product planning, pricing, promotion, purchasing, distribution, finance, and the development of a business plan. 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.

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.

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.

GLOBAL MARKETING (813500)

Grades: 11, 12

Credit: one

Through this course, students are introduced to the international marketing arena, where they receive a strong foundation in the following concepts: marketing, economics, international trade, and international finance. The course exposes students to economical, geographical, political, legal, and cultural influences in international markets. Emphasis on product development, pricing, promotion, and distribution are explored from an international perspective. Much of the course is tied to current events. 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.

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.

Students should be 11th or 12th graders if they have not had a previous marketing course.

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.

MARKETING COOPERATIVE INTERNSHIP (CO-OP) (819920)
Grades: 10, 11, 12 **Credit: one**
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 396 hours (10 hours per week) in an approved, supervised marketing-related, part-time job for one credit.

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.

MATHEMATICS

ALGEBRA 1 / PART 1 (313100)
Grades: 9, 10 **Credit: one**
Prerequisite: Middle School Mathematics

Algebra 1 / Part 1 extends students' understanding of the real number system and its properties through the study of variables, expressions, equations, inequalities, and analysis of data derived from real-world phenomena. Topics include linear equations and inequalities, linear relations and functions, measures of central tendency (mean, median, mode), data analysis and middle school objectives as needed. Algebra 1 / Part 1 includes approximately sixty percent of the Virginia Standards of Learning for Algebra 1. Students who began 9th grade during the 2009-2010 school year or earlier must pass Algebra 1 to receive mathematics graduation credit for Algebra 1 / Part 1. This course will not count towards a mathematics graduation credit for students who start 9th grade during the 2010-2011 school year or later.

ALGEBRA 1 (313000)
Grades: 8, 9, 10, 11 **Credit: one**
Prerequisite: Middle School Mathematics

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

ALGEBRA 1 2X2 (313064/313164) **Credit: two**
Grades: 9, 10
Students receive 1 math credit and 1 elective credit
Prerequisite: Middle School Mathematics, recommendation of teacher

This course is designed for math learners who may have struggled with basic concepts, but who desire to complete Algebra 1 by the end of their freshman year. It combines Algebra Part I, and Algebra 1, and requires a dedication to mastering the concepts necessary for Algebra. Students who select this option for Algebra will give up one elective period and receive 1 math credit and 1 elective credit.

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

ALGEBRA 1 HN (313036)
Grades: 7, 8, 9 **Credit: one/weighted +.5**
Prerequisite: Mathematics 7 and/or Mathematics 8

The depth and level of understanding expected in Algebra 1 Honors is beyond the scope of Algebra 1. Students are expected to master algebraic mechanics and understand the underlying theory, as well as apply the concepts to real-world situations in a meaningful way. Students extend knowledge and understanding of the real number system and its properties through the study of variables, expressions, equations, inequalities, and the analysis of data from real world phenomena. Emphasis is placed on algebraic connections to arithmetic, geometry, and statistics. Calculators and computer technologies are integral tools. Graphing calculators are an essential tool for every student to explore graphical, numerical, and symbolic relationships.

GEOMETRY / PART 1 (314400)
Grades: 10, 11 **Credit: one**
Prerequisite: Algebra 1

Students develop an understanding of the reasoning process and the concept of proof. Properties and relationships of lines, angles, and triangles are developed inductively and then verified deductively. Topics include conditional statements, syllogisms, points in space, parallel lines, transversals, planes, congruence, the Pythagorean Theorem, and similarity. Calculators, computers, graphing utilities, dynamic geometry software, and other appropriate technology tools will be used to assist in teaching and learning. This course includes an integrated review of algebraic topics needed in geometry. Students who began 9th grade during the 2009-2010 school year or earlier must pass Geometry to receive mathematics graduation credit for Geometry / Part 1. This course will not count towards a mathematics graduation credit for students who start 9th grade during the 2010-2011 school year or later.

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 PART 1/GEOMETRY 2x2 (314464/314564)
Grades: 10, 11 **Credit: two**
Prerequisite: Algebra 1
Students receive 1 math credit and 1 elective credit

This course is designed for math learners who may have struggled with basic concepts, but who desire to complete Geometry in one year. It may be ideal for students who found the 2x2 Algebra helpful, and/or for students who began high school math as a fast math class. It combines Geometry Part 1, and Geometry, and requires a dedication to mastering the concepts necessary for Geometry. Students who select this option for Geometry will give up one elective period and receive 1 math credit and 1 elective credit.
Students are required to take the Standards of Learning End of Course Test in Geometry

GEOMETRY HN (314336)**Grades: 8, 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/TRIG HN (313736)**Grades: 9, 10, 11 Credit: one/weighted +.5****Prerequisite: Algebra 1 and Geometry**

Algebra 2 with Trig Honors includes all of the topics of Trigonometry (3150). The depth and level of understanding expected 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, sequences and series, permutations and combinations, 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.

ALGEBRA 2 HN (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. *Graphing Calculator required.*

ADVANCED PLACEMENT STATISTICS (319204)**Grades: 10, 11, 12****Credit: one/weighted +1.0****Prerequisite: Geometry and Algebra 2**

Advanced Placement Statistics includes graphical and numerical techniques to study patterns and explore data, strategies for developing a plan to conduct a study based on data analysis, probability as a tool for predicting distribution of data, and techniques of statistical inference. Students who successfully complete this course and the AP statistics examination may receive credit and/or advanced placement for a one-semester college statistics course.

*Graphing calculator required***ADVANCED PLACEMENT CALCULUS AB (317004)****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: Precalculus with Trigonometry or Precalculus with Trigonometry Honors; IB Mathematics SL**

This course emphasizes a multi-representational approach to calculus. Concepts, results, and problems are expressed graphically, numerically, analytically, and verbally. Content includes concepts and applications of differential and integral calculus, limits, and elementary differential equations. This course prepares students for the Calculus AB Advanced Placement examination, for which placement and/or credit may be awarded at the college level, if a qualifying score is obtained. Content of this college-level course corresponds to the syllabus of the College Board Calculus AB Advanced Placement Program. All students are required to take the Advanced Placement exam.

*Graphing calculator required***ADVANCED PLACEMENT CALCULUS BC (317704)****Grades: 10, 11, 12****Credit: one/weighted +1.0****Prerequisite: Precalculus with Trigonometry Honors; IB Mathematics SL**

This course is an extension of Advanced Placement Calculus AB. This course emphasizes a multi-representational approach to calculus. Concepts, results, and problems are expressed graphically, numerically, analytically, and verbally. Content includes concepts and applications of differential and integral calculus, sequences and series, and elementary differential equations. This course prepares students for the Calculus BC Advanced Placement examination, for which placement and/or credit may be awarded at the college level, if a qualifying score is obtained. Content of this college-level course corresponds to the syllabus of the College Board Calculus BC Advanced Placement Program. All students are required to take the Advanced Placement exam.

*Graphing calculator required***PROBABILITY AND STATISTICS (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.

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.

Graphing calculator required

IB MATHEMATICS SL I (316308)*(Pre-calculus)***Grades: 10, 11****Credit: one/weighted +.5****Prerequisite: Geometry and 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.

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

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.

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

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. *Graphing calculator required*

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.

*Graphing calculator required***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**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.

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, human anatomy 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 HN (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, human anatomy and ecology. In comparison to Biology 1, students will investigate some topics at a deeper level including biotechnology, health, and environmental issues. Honors biology students will also complete quarter projects and line of reasoning assignments that incorporate research skills and the use of primary scientific literature. 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 I (438009)*(IB Biology I HL)***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****Strongly recommend prerequisite of IB Chemistry or any IB SL course**

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.

*Required summer assignment***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. Students will be provided with an in-depth approach to the study of biological principles and processes while exploring the international nature of science. During this course, students will study such topics as basic biochemistry; cell structure and function; genetics and biotechnology, evolution and ecology; human anatomy and physiology; and special topics. 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.

*Required summer assignment***HUMAN ANATOMY AND PHYSIOLOGY: AN INTRODUCTION TO THE MEDICAL SCIENCES (433000)****Grades: 11, 12****Credit: one****Prerequisite: Biology and Chemistry**

Human Anatomy and Physiology provides students with an in-depth understanding and working knowledge of the human body. It covers the ten systems of the human body with emphasis on the mechanisms that maintain homeostasis. Lab activities cover both the physiological and anatomical aspects of human biology. Students have the opportunity to explore careers in the medical sciences. An independent project is required. If dissections are part of the laboratory experience, alternatives are available. This course does not count as one of the science credits for the standard diploma. It can be used as the fourth science credit for an advanced studies diploma if the student has already taken three science courses from three different disciplines.

CHEMISTRY I (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.

CHEMICAL TECHNOLOGY (CT) (441050)**Grades: 11, 12****Credit: one****Prerequisite: One laboratory science course, Algebra 1**

Chemical Technology is an alternative to the more traditional chemistry course and focuses on teaching chemistry using strategies to strengthen math skills. There is an emphasis on hands-on experiences and the use of technology.

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. 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 I HN.

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. Students are required to take the IB Chemistry standard level exam. 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 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. 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 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.

ACTIVE PHYSICS (451050)*step one***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.

PHYSICS 1 (451000)**Grades: 11, 12****Credit: one****Prerequisite: Two laboratory science courses; strongly recommend an additional level of math beyond Algebra 1 with an emphasis on trigonometry.**

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.

IB PHYSICS I (451007)**Grades: 10, 11****Credit: one/weighted +.5****Prerequisite: Two laboratory science courses and Algebra 2****Corequisite: pre-calculus with trigonometry**

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 1 HN.

IB PHYSICS II SL (459008)*(IB Physics II SL)***Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: IB Physics I, Physics 1****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.

*(Summer Assignment required)***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.

IB ENVIRONMENTAL SYSTEMS AND SOCIETIES SL (428008)**Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: Biology 1 and Chemistry 1**

The course focuses on the fundamental structure and functioning of natural systems and the broad impacts of human activities. Students examine systems and models, the ecosystem, global cycles and physical systems, and human population and carrying capacity. They analyze a specific ecosystem as well as the impacts of resource exploitation, conservation and biodiversity, and pollution. Laboratory investigations, including field studies, 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 Environmental Systems and Societies standard level exam.

OCEANOGRAPHY (425000)**Grades: 11, 12****Credit: one****Prerequisite: Two laboratory science courses**

Oceanography explores geophysical and biological factors and covers topics such as the geology and geography of ocean basins, physical properties of sea water, marine chemistry, marine biology, salinity and density circulation in the oceans, waves, and tides. The course is designed to be a survey of oceanography concepts. This course does not count as one of the science credits for the standard diploma. It can be used as the fourth credit for an advanced studies diploma, if the student has already taken three science courses from three different disciplines.

ASTRONOMY (426000)**Grades: 11, 12****Credit: one****Prerequisite: Two laboratory science courses**

Astronomy deals with topics such as the universe, universal laws, galaxies, stellar evolution, the solar system and its motion, and the exploration of space. This course is designed to be an in-depth and mathematical survey of astronomy concepts. This course does not count as one of the science credits for the standard diploma. It can be used as the fourth credit for an advanced studies diploma, if the student has already taken three science courses from three different disciplines.

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. Students are required to take the World History and Geography 1 end of course Standards of Learning exam.

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. Students are required to take the World History and Geography 2 end of course Standards of Learning exam.

WORLD HISTORY AND GEOGRAPHY 2 HN (222107) Grades: 9

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 sequence 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. Students are required to take the end of course Standards of Learning test for World History and Geography 2.

WORLD STUDIES 2 HN (222197)

Grades: 10

Credit: one/weighted +.5

This course is designed to develop greater understanding of the evolution of global processes and contacts, in interaction with different types of human societies. This understanding is advanced through a combination of selective factual knowledge and appropriate analytical skills. Focused primarily on the past fifteen hundred years of the global experience, the course builds on an understanding of cultural, institutional, and technological precedents that, along with geography, set the human stage prior to the year 600. This course may be used to satisfy the World History and Geography 2 requirement. Students are required to take the World History and Geography 2 End of Course Standards of Learning Test.

ADVANCED PLACEMENT COMBINED UNITED STATES AND COMPARATIVE GOVERNMENT (244567)

Grades: 10

Credit: one/weighted +1.0

This course includes a study of comparative government as well as American government and politics. In the study of American government, students interpret national, state, and local government and politics through a study of both general concepts and specific case studies. In the study of comparative government, emphasis is placed on understanding the world's diverse political structures and practices, as well as on interpreting and analyzing the key political relationships found in national governments. This course prepares students to take the Advanced Placement examination for Comparative Government for which college credit and/or placement may be given if qualifying scores are made. Completion of this course fulfills the graduation requirement for one credit in Virginia and United States Government. Students in this course must take the AP Comparative Government exam.

ADVANCED PLACEMENT UNITED STATES HISTORY HN (231904)

Grades: 11

Credit: one/weighted +1.0

In this course students develop the factual knowledge and analytical skills necessary to deal with the issues and problems of American History. They do in-depth analysis of major developments; become familiar with primary sources; assess historical materials, evidence, and interpretations; and learn to write research papers. This course prepares students to take the Advanced Placement examination in American History for which college credit and/or placement may be given if a qualifying score is made. The course is equal to a full-year introductory college course. Completion of this course fulfills the graduation requirement for one credit in Virginia and United States History. Students in the course must take the AP United States History exam.

VIRGINIA AND UNITED STATES HISTORY (236000)

Grades: 11

Credit: one

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

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. This course may be used to satisfy the Virginia and United States History requirement for graduation; students are required to take the Virginia and United States History end of course Standards of Learning Exam.

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.

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 the higher level exam. IB History II, together with IB History I, prepares students to take the higher level exam.

IB GEOGRAPHY SL (221008)
Grades: 11, 12 **Credit: one/weighted +1.0**

IB Geography SL is a thematic study of real-world issues of spatial analysis. In contemporary society, issues such as urbanization, population development and environmental quality are increasingly important. These and other related themes that express the major concerns of our times reflect the consequences of spatial decisions. Conducting its analyses at the local, regional, national and international scales, IB Geography examines the spatial processes and the perceptions of humans, as well as the interrelations between the human and natural environments. The questions 'where?' and 'why?' are central to the course. Students study five core themes: population dynamics, economic growth and development, human responses to natural hazards, agriculture and world food supply, and urban environments. Students learn to apply the tools and techniques of geographers. Students are required to take the standard level exam.

ADVANCED PLACEMENT GOVERNMENT HN (244504)
Grades: 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; students are required to take the AP US Government exam.

IB PHILOSOPHY SL (295008)
Grades: 11, 12 **Credit: one/weighted +1.0**

This course examines the fundamental questions that people have asked since the beginning of time and confronts new problems arising within contemporary society. What exists? What is it to be a human being? What can we know? How do I know what is the right thing? These questions are explored through an examination of philosophical themes and texts. Students will relate their philosophical understanding to other disciplines and to personal and civic life. They will formulate arguments in a rational and logical way, examine critically their own experience and their ideological biases, and become aware of the plurality of philosophical traditions. Students are required to take the standard level IB exam.

IB PSYCHOLOGY SL (290108)
Grades: 11, 12 **Credit: one/weighted +1.0**

The IB Psychology standard level program is a one-year study of six of thirteen authors from four compulsory subject areas: developmental psychology, social psychology, cognition and learning, and personality. Each of these areas is approached through four themes: biological and physiological, behavioral, humanistic and phenomenological. Students are required to take the standard level exam or continue to the second year higher level course.

IB PSYCHOLOGY II HL (290109)
Grades: 12 **Credit: one/weighted +1.0**
Prerequisite: IB Psychology SL

This higher level program is a two-year study and includes, in addition to the topics outlined for the standard level, principles of research design, elementary descriptive and inferential statistics. Students choose two of five special options: information processing; physiological and comparative psychology; social psychology; child development; or applied psychology. During the two years of study, students design, conduct, and report in a practical notebook, four practical exercises involving different techniques of empirical inquiry. Students are required to take the higher level exam.

IB SOCIAL ANTHROPOLOGY SL (237408)
Grades: 11, 12 **Credit: one/weighted +1.0**

In this course, students engage in the comparative study of culture and human societies. They explore both the universal principles of social and cultural life and characteristics of specific societies and cultures. This includes approaches to social change, problems of injustice, social inequality and human rights. Course activities include observation, field study, reading, writing, and discussion. Students are required to take the standard level exam.

IB WORLD RELIGIONS SL (295068)
Grades: 11, 12 **Credit: one/weighted +1.0**
Prerequisite: Open to senior IB diploma candidates and to junior and senior non diploma candidates

This SL course is designed to promote an inquiring, critical, and systematic approach to the study of religion; enable students to acquire a substantial knowledge of world religions; provide students with an appreciation of the issues surrounding religious beliefs, controversies, and movements in the world today; enable students to understand how religions affect peoples' lives and develop an awareness of the significance of the adherents of each of the faiths studied. By drawing on historical, geographical, and sociological elements, the course also seeks to promote an awareness of some of the religious issues in the contemporary world. Students are required to take the standard level exam.

COMBATING INTOLERANCE (982200)
Grades: 10, 11, 12 **Credit: one**

In this elective participants examine the fundamental issues inherent in living in an ethnically diverse, democratic society; the nature of prejudice, stereotyping, and discrimination; individual and governmental responsibility; and the ways in which individual choices combat intolerance.

PSYCHOLOGY (290000) **Credit: one**
Grades: 11, 12 (290032) **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) **Credit: one half**
Grades: 10, 11, 12

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.

TECHNOLOGY AND ENGINEERING EDUCATION

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.

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

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.

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.

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.

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.

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

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.

IB DESIGN TECHNOLOGY SL (846508)
Grades: 11, 12
Prerequisite: Engineering (849000) recommended but not required, or approval of advanced level instructor
Credit: one/weighted +1.0

The IB design technology course and related project, which unifies all aspects of the IB design technology course, is based on the design cycle and is a compulsory element of the practical course of work and assessment. Each student must submit a project summary report, which identifies the key stages of the project development. The report may contain information in the form of text, diagrams, photographs, and so on, and should explain the process followed and the decisions taken. The design project must be assessed against the design technology criteria: planning, research, development, evaluation, and manipulative skills.

Students in the class are required to take an IB exam.

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.

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.

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.

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 disciplines. 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.

TRADE AND INDUSTRIAL

AUTOMOTIVE SERVICING (871023)

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 (850624)

Grades: 10, 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 (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 TECHNOLOGY 3 (850824)**Grades: 11, 12 Credit: two**

Students will diagnose, troubleshoot, and install components and parts, while focusing on the standards established by the National Automotive Technicians Education Foundation (NATEF). Opportunities will be provided to enhance skills and competencies. An emphasis is placed on problem-solving issues related to technological enhancements in the automotive industry. 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.

CRIMINAL JUSTICE 1 (870200)**Grades: 10, 11, 12****Credit: one****(Robinson Secondary School, Centreville, Oakton and Westfield High Schools)**

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. **This "Criminal Justice Level 1" is an introductory course and specifically deals with the three fields that make up the Criminal Justice System: Law Enforcement, Courts and Corrections. This course focuses on the overall justice system, the duties, responsibilities and tasks performed by the professionals in each of the fields and how each field interacts with the each other. 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 (870324)**Grades: 11, 12****Credit: two**

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.

This "Criminal Justice Level 2" course specifically deals with an in-depth view of the three fields that make up the Criminal Justice System: Law Enforcement, Courts and Corrections. 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.

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**CHINESE 1 (581000)****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.

CHINESE 2 (582000)**Grades: 9, 10, 11, 12** **Credit: one**
Prerequisite: Chinese 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.

CHINESE 3 (583000)**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 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.

IB CHINESE 1 (584208)**CHINESE IB STANDARD LEVEL** **Credit: one/weighted +1.0**
Grades: 11, 12
Prerequisite: Three years of Chinese or equivalency test and permission of instructor

In this course students continue to develop their proficiency in listening, speaking, reading and writing Chinese. Students communicate using more complex structures in the language on a variety of topics, moving from concrete to more abstract concepts. Students continue to develop the ability to comprehend the main ideas of authentic materials that they read and hear and to identify significant details when the topics are familiar. Chinese language is used extensively in the class as students develop the ability to discuss topics related to historical and contemporary events and issues. IB Chinese focuses on mastery of simplified Chinese characters and the Pinyin Romanization system. The language learning process integrates basic aspects of the geography, customs and culture of China. Students are required to take the standard level IB Chinese exam in the spring following enrollment.

IB CHINESE SL II (585208)**CHINESE IB STANDARD LEVEL** **Credit: one/weighted +1.0**
Grades: 11, 12
Prerequisite: IB Chinese 1

IB Chinese, Part 2 is the second segment of a two-year series that prepares students to take the IB Chinese 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.

IB CHINESE HL II (585209)**CHINESE IB HIGHER LEVEL** **Credit: one/weighted +1.0**
Grades: 11, 12
Prerequisite: IB Chinese 1

IB Chinese, Part 2 is the second segment of a two-year series that prepares students to take the IB Chinese 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.

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.

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.

*Required summer assignment***IB FRENCH SL, II (515208)****FRENCH IB STANDARD LEVEL****Grades: 11, 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 standard level examination.

*Required summer assignment***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.

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.

*Required summer assignment***IB GERMAN SL, II (525208)****GERMAN IB STANDARD LEVEL****Grades: 11, 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 standard level examination.

Required summer assignment

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.

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.

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.
Required summer assignment

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.

*Required summer assignment***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 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 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 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 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 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.

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.

IB SPANISH I (554208)**SPANISH IB STANDARD 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 standard level examination.

*Required summer assignment***IB SPANISH SL, II (555208)****SPANISH IB STANDARD LEVEL****Grades: 11, 12****Credit: one/weighted +1.0****Prerequisite: Four years of Spanish or equivalency test and permission of instructor. IB Spanish, Part 1 is preferred immediately prior to this course.**

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 standard level examination.

*Required summer assignment***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.

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

DEVELOPMENTAL READING (118080)

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).

BASIC SKILLS I-IV (788980)

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.)

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.

INDIVIDUALIZED MATHEMATICS (312180)

Grades: 9, 10, 11, 12

Credit: one

Prerequisite: None

The purpose of this course is to provide instruction of foundational mathematics skills to special education students who are functioning more than two years below grade level in mathematics. The course is designed to present the foundational skills necessary to enter Algebra I using manipulatives, special materials, and adaptive strategies. The course may include number concepts, mental mathematics, estimation, problem solving, operations, measurement, geometry, data analysis, statistics, probability, and fractions. This course should be reflected in the student's IEP. This course does not meet the mathematics graduation requirements for the Standard or Advanced Studies Diploma. Students earn elective credit.

PERSONAL DEVELOPMENT (781580)

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).

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.

WORK AWARENESS AND TRANSITION (907162)**Grades: 9, 10, 11, 12****Credit: two**

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.

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.

ROBINSON HIGH SCHOOL 2012-2013 NINTH GRADE COURSE SELECTION SHEET

Please Note: Course Offerings Are Dependent Upon Enrollment (01/06/12)

ID _____ LAST NAME _____ FIRST NAME _____ MIDDLE _____ TELEPHONE _____

SCHOOL ATTENDED 10-11 _____ 8TH GRADE COUNSELOR _____

To Student, Parent/Guardian: these are the courses your child has selected for the 2012-2013 school year. Counselors have reviewed the selections to be sure they meet graduation requirements. School staffing decisions are made based on the course selections students make in the spring. Please look over the selections your student has made at this time and contact the middle school counselor if you wish you make changes to these requests. **All changes to course selections must be made prior to June 25, 2012.** Please return this sheet to your child's counselor within one week. If you have questions/concerns, do not hesitate to contact your child's counselor.

Parent/Guardian Signature _____ Date _____

English

- 113000 English 9
- 1130__ English 9 (71, 81, 88)
- 113036 English 9 HN
- 116500 Study Of Shakespeare
- 117100 Creative Writing
- 120000 Journalism 1
- 122000 Broadcast Journalism
- 130000 Speech Communication

Social Studies

- 221900 World Hist & Geo 1
- 2219__ World Hist & Geo 1 (71, 81)
- 222107 World History & Geo 2 HN

Math

- 313000 Algebra 1
- 3130__ Algebra 1 (71, 81)
- 313036 Algebra 1 HN
- 313064/313164 Algebra 1 2 X 2
- 313051/313151 Algebra 1 2 X 2 Team
- 313041/313141 Algebra 1 2x2 SC
- 314300 Geometry
- 3143__ Geometry (71, 81)
- 314336 Geometry HN
- 313536 Algebra 2 HN
- 313736 Algebra 2/Trig HN

Science

- 431000 Biology
- 4310__ Biology (71,81)
- 431036 Biology 1 HN

Health & Physical Education

- 730000 Health & PE 9
- 770000 Adapted PE
- 770001 Adapted PE-Vision
- 763000 Sports Medicine

General

- 612000 Econ & Personal Finance
- 980812 SGA (Apply)*

World Languages

- 581000 Chinese 1
- 582000 Chinese 2
- 511000 French 1
- 512000 French 2
- 521000 German 1
- 522000 German 2
- 531000 Latin 1
- 532000 Latin 2
- 551000 Spanish 1
- 552000 Spanish 2

- 551100 Spanish for Fluent Spkrs 1
- 552100 Spanish for Fluent Spkrs 2

Business And Info Tech

- 632000 Accounting
- 613232 Business Law S
- 613632 Business Mgmt S
- 664000 Programming
- 663000 Design, Multimedia & Web Tech

Family & Consumer Sciences

- 825900 Gourmet Foods & Internat'l Foods & Hosp
- 822832 Fitness And Food S
- 822632 Life Planning S

Fine Arts: Theater Arts

- 141000 Theater 1
- 143511 Robinson Production Co (Apply)*

Fine Arts: Visual Arts

- 912000 Studio Art & Design 1
- 919311 Photography 1
- 918011 Computer Graphics 1

Fine Arts: Music

(Audition May Be Required)

- 923215 Concert 1 Beg Band
- 923315 Concert 2 Int Band
- 923316 Concert 3 Int Band
- 923415 Concert 4 Adv Band
- 923417 Symphonic Adv Band
- 925015 Percussion Ensem Concert 3
- 923715 Beginning Orchestra
- 923815 Sinfonia Int Orchestra
- 923816 HS Concert Int Orchestra
- 923915 Philharmonic Adv Orchestra
- 925016 String Chamber Music Ens
- 926016 Women's Chorus Treble Ens
- 926017 Men's Chorus Man Choir
- 928915 Robinson Singers Adv Mixed Choir
- 924515 Guitar 1
- 922500 Music Theory

Marketing

- 811000 Intro To Marketing
- 814000 Fashion Marketing

Technology Education

- 840300 Design & Tech
- 843500 Basic Tech Drawing
- 841600 Electronics 1

Trade And Industrial

- 871023 Auto Servicing

ESOL

- 571011/12/13 ESOL Level 1
- 571014/15/16 ESOL Level 2
- 572091/92 ESOL Level 3
- 573000 ESOL Level 4
- 113095 Transitional English 9
- 462260 Concepts Science
- 299660 World Concepts
- 312190 Individualized Math (Fast Math)
- 313100 Algebra 1 Part 1

Special Education

- 1180__ Developmental Reading (80,81,82)
- 7889__ Basic Skills Resource (80,81,85)
- 798800 Life Skills
- 781580 Personal Development
- 781380 Found of English 9-12
- 781180 Found of Biology
- 907161 Work Aware & Trans (1 Cr)

S Semester Course

* Permission Of Instructor Required

Alternative Choices:

Indicate at least 3 year long courses or 2 yr-long w/2 semester courses in priority order. If there is a conflict in your schedule, the alternative courses(s) will replace your first choice elective(s).

1. _____
2. _____
3. _____
4. _____

Grade in 2011-12: _____ Name: _____

Email: _____ Ph: _____ Advising_Counselor: _____

(Please Print)

ROBINSON HIGH SCHOOL 2012-2013 Course Selection Sheet (0123/12)

English

- 111300 English 9
- 1130__ English 9 (71, 81)
- 113036 English 9 HN
- 113095 Transitional English 9
- 114000 English 10
- 1140__ English 10 (71, 81)
- 114036 English 10 HN
- 115000 English 11
- 1150__ English 11 (71, 81)
- 115008 IB English Lit I SL HN
- 115009 IB English Lit I HL
- 116000 English 12
- 1160__ English 12 (71,81)
- 116008 IB English Lit II SL
- 116009 IB English Lit II HL
- 119504 AP English Lit & Comp HN
- 120000 Journalism 1
- 121000 Journalism 2
- 121100 Journalism 3
- 121200 Journalism 4
- 122000 Broadcast Journalism
- 122012 Broadcast Journalism 2
- 122013 Broadcast Journalism 3
- 121500 Photojournalism 1
- 121600 Photojournalism 2
- 121700 Photojournalism 3
- 117100 Creative Writing
- 117200 Creative Writing 2
- 117300 Creative Writing 3
- 116500 Study Of Shakespeare
- 117700 Advanced Composition
- 130000 Speech Communication
- 144600 Film Study
- 144608 IB Film Study I SL
- 144658 IB Film Study II SL
- 144659 IB Film Study II HL

Social Studies

- 221900 Wrld Hist & Geography 1
- 2219__ Wrld Hist & Geo 1 (71,81)
- 222100 Wrld Hist & Geography 2
- 2221__ Wrld Hist & Geo 2 (71,81)
- 222197 World Studies 2 Honors
- 244567 AP Comb US & Comp Gov
- 236000 VA / US History
- 2360__ VA / US History (71,81)
- 231904 AP US History HN
- 236009 IB History of Americas
- 244000 VA / US Gov
- 2440__ VA / US Gov (71,81)
- 244504 AP Government HN
- 236109 IB Topics – 20th Century HL
- 221008 IB Geography SL
- 295008 IB Philosophy SL
- 290108 IB Psychology SL
- 290109 IB Psychology II HL
- 237408 IB Soc Anthropology SL
- 295068 IB World Religions SL
- 982200 Combating Intolerance
- 290000 Psychology
- 290032 Psychology S
- 250032 Sociology S

Math

- 313000 Algebra 1
- 3130__ Algebra 1 (71,81)
- 313064/313164 Alg 1 2 x 2
- 313051/313151 Alg 1 2 x 2 Team
- 313041/313141 Alg 1 2 x 2 SC
- 314300 Geometry
- 3143__ Geometry (71,81)
- 314336 Geometry Honors
- 314464/314564 Geometry 2 x 2
- 314451/314551 Geometry 2 x 2 Team
- 314441/314541 Geometry 2 x 2 SC
- 313500 Algebra 2
- 3135__ Algebra 2 (71,81)
- 313536 Algebra 2 HN
- 313736 Algebra 2/Trig HN
- 316000 Pre-Calculus With Trig
- 319204 AP Statistics
- 317004 AP Calculus AB
- 317704 AP Calculus BC
- 319062 Probability & Statistics
- 319608 IB Math Studies SL
- 316308 IB Math I SL
- 319508 IB Math II SL
- 317709 IB Math I HL
- 317009 IB Math II HL

Science

- 431000 Biology 1
- 4310__ Biology 1 (71,81)
- 431036 Biology 1 HN
- 441000 Chemistry 1
- 4410__ Chemistry 1 (71)
- 441050 Chemical Tech
- 441051 Chemical Tech Team
- 441007 IB Chemistry I
- 449008 IB Chemistry II SL
- 449009 IB Chemistry II HL
- 451000 Physics
- 451050 Active Physics
- 451051 Active Physics Team
- 451007 IB Physics I
- 459008 IB Physics II SL
- 459009 IB Physics II HL
- 439008 IB Biology SL
- 438009 IB Biology I HL
- 439009 IB Biology II HL
- 422000 Geosystems
- 4220__ Geosystems (71, 81)
- 433000 Human Anatomy & Phys
- 426000 Astronomy
- 428008 IB Environmental Sys SL
- 425000 Oceanography

Health & PE

- 730000 Health and PE 9
- 740500 Health and PE 10
- 763000 Sports Medicine
- 764011 Personal Fitness 1
- 764012 Personal Fitness 2
- 764061/62 Personal Fitness 1 S
- 764061/62 Personal Fitness 2 S
- 751000 Adv PE Level 1
- 761000 Adv PE Level 2
- 980800 Sports Leadership

World Languages

- 581000 Chinese 1
- 582000 Chinese 2
- 583000 Chinese 3
- 584208 IB Chinese I
- 585208 IB Chinese II SL
- 585209 IB Chinese II HL
- 511000 French 1
- 512000 French 2
- 513000 French 3
- 514208 IB French I
- 515208 IB French II SL
- 515209 IB French II HL
- 521000 German 1
- 522000 German 2
- 523000 German 3
- 524208 IB German I
- 525208 IB German II SL
- 525209 IB German II HL
- 531000 Latin 1
- 532000 Latin 2
- 533000 Latin 3
- 537008 IB Latin I
- 538008 IB Latin II SL
- 551000 Spanish 1
- 552000 Spanish 2
- 553000 Spanish 3
- 554000 Spanish 4
- 554208 IB Spanish I
- 555208 IB Spanish II SL
- 555209 IB Spanish II HL
- 551100 Spanish for FI Speakers 1
- 552100 Spanish for FI Speakers 2
- 553100 Spanish for FI Speakers 3

ESOL

- 571011/12/13 ESOL Level 1
- 571014/15/16 ESOL Level 2
- 572091/92 ESOL Level 3
- 573000 ESOL Level 4 Expanding
- 113095 Transitional English 9
- 222194 Wrld Hist & Geography 2 Team
- 299660 World Concepts
- 462260 Concepts Science
- 312190 Individualized Math (Fast Math)
- 313100 Algebra 1 Part 1
- 431094 Biology ESOL Teamed

Special Education

- 7889__ Basic Skills (80,81,85)
- 781380 Found of English 9-12
- 11808__ Developmental Reading (80,81,82)
- 781080 Found of World History
- 781480 Found of US/VA History
- 312080 Personal/ Financial Math
- 31218__ Individualized Math (80,81,82)
- 781180 Found of Biology
- 781580 Personal Development
- 798800 Life Skills
- 847162 Office Tech & Proc (2 credits)
- 847163 Office Tech & Proc (3 credits)
- 907161 Wk Awareness & Trans (1 credit)
- 907162 Wk Awareness & Trans (2 credits)
- 770000 Adaptive PE
- 770001 Adaptive PE (Vision)

General

- 982008 IB Theory Of Knowledge
- 980813 GMR (Apply) *
- 980812 SGA (Apply) *
- 980760 Peer Helping (Apply) *
- 980780 Packaged with Care (Apply)*
- 980818 Computer Tech Asst (Apply) *
- 612000 Economics & Personal Finance

Business and Information Technology

- 632000 Accounting
- 632100 Advanced Accounting
- 664000 Programming
- 664100 Advanced Programming
- 613232 Business Law S
- 613632 Business Management S
- 613508 IB Bus & Management SL
- 613509 IB Bus & Management HL
- 663000 Des, Multimedia & Web Tech
- 679920 Bus Coop Intern (1 cr)
- 679921 Bus Coop Intern (2 cr)

Family and Consumer Science

- 823200 Child Dev & Parenting
- 828524/8285PH
Early Childhood Careers 1 (2 cr)
- 828624/8286PH
Early Childhood Careers 2 (2 cr)
- 825900 Gourmet & Internat'l Foods
- 822832 Fitness and Foods S
- 822632 Life Planning S

Fine Arts – Music

- 923215 Beg Band Concert 1
- 923315 Int Band Concert 2
- 923316 Int Band Concert 3
- 923415 Adv Band Concert 4
- 923417 Symphonic Adv Band
- 925015 Percussion Ensemble Concert 3
- 923715 Beginning Orchestra
- 923815 Sinfonia Int Orchestra
- 923816 HS Concert Int Orchestra
- 923915 Philharmonic Adv Orchestra
- 925016 String Chamber Music Ensemble
- 926016 Women's Chorus Treble Ensemble
- 926017 Men's Chorus Man Choir
- 928516 Int Chorus Women's Camerata
- 928915 Robinson Singers Adv Mixed Choir
- 928916 Adv Women's Choir Select Ens
- 922500 Music Theory
- 922508 IB Music I
- 922509 IB Music HL
- 922609 IB Music II HL
- 924515 Guitar I

- 924518 Guitar Ensemble-Int
- 924519 Guitar Ensemble-Adv

Fine Arts –Theatre Arts

- 141000 Theatre Arts 1
- 142000 Theatre Arts 2
- 143000 Theatre Arts 3
- 144000 Theatre Arts 4
- 143511 Tech Theatre 1
- 143512 Tech Theatre 2
- 143513 Tech Theatre 3
- 143514 Tech Theatre 4
- 143008 IB Theatre Arts I
- 144008 IB Theatre Arts II SL
- 143009 IB Theatre Arts I HL
- 144009 IB Theatre Arts II HL

Fine Arts -Visual Arts

- 912000 Studio Art & Design 1
- 913000 Studio Art & Design 2
- 914000 Studio Art & Design 3
- 914700 Studio Art &Des 4: Port Prep
- 918011 Computer Graphics 1
- 918111 Computer Graphics 2
- 918211 Computer Graphics 3
- 919911 Comp Graphics 4: Port Prep
- 918100 Animation
- 919311 Photography 1
- 919411 Photography 2
- 919511 Photography 3
- 919914 Photography 4: Port Prep
- 914908 IB Visual Arts I
- 915108 IB Visual Arts II SL
- 914909 IB Visual Arts I HL
- 915109 IB Visual Arts II HL
- 919711 Ceramics & Sculpture 1
- 919712 Ceramics & Sculpture 2
- 914763 Ceram & Sculp 3 Port Prep

Marketing

- 812000 Marketing 1
- 813000 Advanced Marketing
- 813500 Global Marketing
- 817500 Sports/Entertain Mrktng
- 817700 Adv Sports/Entertain Mrktng
- 814000 Fashion Marketing 1
- 814500 Fashion Marketing 2
- 819920 Mrkt Coop Intern 1 Credit
- 819921 Mrkt Coop Intern 2 Credit

Technology Education

- 841600 Electronics 1
- 843500 Basic Technical Drawing
- 843700 Architectural Drawing
- 843600 Engineering Drawing

Technology Education continued

- 840300 Design And Technology
- 843600 Engineering Drawing
- 846508 IB Design Technology SL
- 849000 Stem Engineering
- 849100 Research & Dev Engineering

Trade And Industrial

- 871023 Automotive Servicing
- 850624/8506PH Auto Tech 1
- 850724/8507PH Auto Tech 2
- 850824/8508PH Auto Tech 3
- 870200 Criminal Justice 1
- 870324/8703PH Criminal Justice 2

Academy Classes

Requires up to two travel periods

- Chantilly

- Fairfax

- Other

Alternate Elective Choices-In Preference Order

1. _____
2. _____
3. _____

- S Semester Course**
- **Permission of Instructor Required**

To the Parent/Guardian: These are courses your student has selected for the 2012-2013 school year. Counselors have reviewed the selections to make sure they meet graduation requirements. Please look over the selections your student has made at this time and contact your student's counselor if you wish to make changes to these requests. **Please sign the form and have your student return this form to his/her counselor within 1 week.** School staffing decisions are made based on course selections made in the spring. **All changes to course selections must be made prior to June 25, 2012.** Changes cannot be made after this date.

We understand that these choices represent a firm commitment and that changes must be made by June 25, 2012.

Parent/Guardian Signature _____ Date: _____

Parent/Guardian Name (Please Print) _____

Student Signature _____ Date: _____