

Planning Guide

for Students and Parents



A Program of Studies
Grades 6-12

2017-2018



HENRICO COUNTY PUBLIC SCHOOLS

Dr. Patrick Kinlaw
Superintendent of Schools



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Dear Students and Parents:

This planning guide, which describes Henrico County Public Schools middle and high school programs and courses, is being provided to assist students and parents in making prudent educational decisions in preparing for the 21st century.

Parents, thank you for continuing to work with counselors, teachers, and administrators to help your child develop an Educational Plan. When students take advantage of the many options in Henrico County Public Schools, they will ready themselves for the challenges of college and the workplace.

Students, thank you for continuing to develop important habits and attitudes as you learn the content of the courses described in this guide. Success in school, just as in all walks of life, requires planning, hard work, self-discipline, and respect for others.

Together, as a team, we will continue to provide excellent opportunities for all students. The employees of Henrico County Public Schools are here to serve you and welcome your questions, comments, and suggestions.

Sincerely,

A handwritten signature in black ink, appearing to read "Patrick C. Kinlaw".

Patrick C. Kinlaw, Ed.D.
Superintendent

Henrico County Public Schools Academic & Career Plan

Tentative Career Cluster/Plan:

_____ Gr. 7
 _____ Gr. 8
 _____ Gr. 9
 _____ Gr. 10
 _____ Gr. 11

Name _____ DOB: _____

Middle School _____ High School _____

Specialty Center Program _____

Diploma Choice: Advanced Standard

virginiacareerreview.org

vawizard.org

vamentoring.org

This individualized plan is tentative and will be reviewed annually.
 Your school counselor will help you develop your plan and will monitor your progress.

Post Secondary Plans _____

High School Credit Courses in Middle School Years 6-8 Course	Verified	Grade 9	Grade 10	Grade 11	Grade 12	Verified
	Year -	Year -	Year -	Year -	Year -	
	English 9	English 10	English 11	English 12		
	Health & P.E. 9	Health & P.E. 10				
	Total Credits	Total Credits	Total Credits	Total Credits	Total Credits	

Requirements for a student to earn a diploma from a Virginia High School are those in effect when a student enters ninth grade for the first time. Please see the charts in Section I of the Planning Guide for details.

Notes: _____

Program of Studies Grades 6-12: A Planning Guide for Students and Parents

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- SECTION I -
Requirements
and Options



Graduation Requirements – State of Virginia Standard Diploma

Beginning with students entering the ninth grade for the first time in 2013-14 and beyond

- Requirements for a student to earn a diploma from a Virginia high school shall be those in effect when that student enters ninth grade for the first time.
- **Beginning with students entering the ninth grade for the first time in 2013-14 and beyond, a student must also:**
 - **Earn a board-approved career and technical education credential to graduate with a Standard Diploma, and**
 - **Successfully complete one virtual course, which may be non-credit bearing.**

STANDARD DIPLOMA COURSE REQUIREMENTS		
Discipline Area	Standard Credits	Verified Credits
English	4	2
Mathematics [Note 1]	3	1
Laboratory Science [Notes 2 & 6]	3	1
History & Social Sciences [Notes 3 & 6]	3	1
Health & Physical Education	2	
World Language, Fine Arts, or Career & Technical Education	2	
Economics & Personal Finance	1	
Electives [Note 4]	4	
CTE Industry Certification Test		
Student Selected Test [Note 5]		1
Total	22	6

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

NOTE 2: Courses completed to satisfy this requirement shall include course selections from at least two different science disciplines: Earth Sciences, Biology, Chemistry, or Physics.

NOTE 3: Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and one course in either World History or Geography or both.

NOTE 4: Courses to satisfy this requirement shall include at least two sequential electives. Sequential Electives:

- Sequential electives may be in any discipline as long as the courses are not specifically required for graduation.
- Courses used to satisfy the one unit of credit in a fine arts or career and technical education course may be used to partially satisfy this requirement.
- An introductory course followed by another level of the same course of study may be used.
- Sequential electives do not have to be taken in consecutive years.

NOTE 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 in 8 VAC 20-131-110.

NOTE 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 (1) the student selected verified credit and (2) either a science or history or social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the Board of Education as an additional test to verify student achievement.

A **standard credit** is awarded for a course in which the student receives 140 clock hours of instruction and successfully completes the objectives of the course as evidenced by a passing grade.

A **verified credit** is awarded for a course in which the student earns a standard unit of credit and achieves a passing score on a corresponding end-of-course Standards of Learning test or a substitute assessment approved by the Board of Education.

Regular education students who pass their classes but do not earn the required number of verified credits will be awarded a Certificate of Program Completion. These students will be encouraged to continue to take the SOL tests needed so that they may receive a diploma. Students will not participate in graduation exercises until a diploma is earned.

Graduation Requirements – State of Virginia

Advanced Studies Diploma

Beginning with students entering the ninth grade for the first time in 2013-2014 and beyond

- Requirements for a student to earn a diploma from a Virginia high school shall be those in effect when that student enters ninth grade for the first time.
- Beginning with students entering the ninth grade for the first time in 2013-2014 and beyond, a student must successfully complete one virtual course, which may be non-credit bearing.

ADVANCED STUDIES DIPLOMA COURSE REQUIREMENTS		
Discipline Area	Standard	Verified Credits
English	4	2
Mathematics [Note 1]	4	2
Laboratory Science [Note 2]	4	2
History & Social Sciences [Note 3]	4	2
World Languages [Note 4]	3	
Health & Physical Education	2	
Fine Arts or Career & Technical Education	1	
Economics & Personal Finance	1	
Electives	3	
Student Selected Test [Note 5]		1
Total	26	9

NOTE 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.

NOTE 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.

NOTE 3: Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and two courses in either World History or Geography or both.

NOTE 4: The Advanced Studies Diploma contains a requirement for either three years of one world language or two years of two languages.

NOTE 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.

A **standard credit** is awarded for a course in which the student receives 140 clock hours of instruction and successfully completes the objectives of the course as evidenced by a passing grade.

A **verified credit** is awarded for a course in which the student earns a standard unit of credit and achieves a passing score on a corresponding end-of-course Standards of Learning test or a substitute assessment approved by the Board of Education.

Regular education students who pass their classes but do not earn the required number of verified credits will be awarded a Certificate of Program Completion. These students will be encouraged to continue to take the SOL tests needed so that they may receive a diploma. Students will not participate in graduation exercises until a diploma is earned.

Graduation Requirements – State of Virginia

Applied Studies Diploma

APPLIED STUDIES DIPLOMA

To receive an Applied Studies Diploma, a student must receive exceptional education services and meet the requirements specified in his/her Individualized Education Program (IEP).

Overview of High School Program Options

Henrico County Public Schools

Middle School
Exploring Careers and
Planning for High School

↓

High School Options

Comprehensive High Schools → *Academic and Technical programs of studies offered in all high schools (Advanced Placement/Honors, College Prep, Standard Academic Prep, and Dual Enrollment)*

Academic Core English Mathematics Science Social Studies World Languages	Electives Fine Arts Career and Technical Education General Academics	Career Clusters Agriculture, Food & Natural Resources Architecture & Construction Arts, A/V Technology & Communications Business Management & Administration Education & Training Finance Government & Public Administration Health Science Hospitality & Tourism	Human Services Information Technology Law, Public Safety, Corrections & Security Manufacturing Marketing Science, Technology, Engineering & Mathematics Transportation, Distribution & Logistics
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Specialty Centers → *Specialized college-preparatory programs requiring application for admission*

- Center for the Arts (Henrico High School)
- Center for Communications and Media Relations (Varina High School)
- Center for Education and Human Development (Glen Allen High School)
- Center for Engineering (Highland Springs High School)
- Center for the Humanities (Hermitage High School)
- Center for Information Technology (Deep Run High School)
- International Baccalaureate Programs (Henrico and J. R. Tucker High School)
- Center for Leadership, Government, and Global Economics (Douglas S. Freeman High School)
- Todd Allen Phillips Center for Medical Sciences (Mills E. Godwin High School)
- Center for Spanish Language and Global Citizenship (J. R. Tucker High School)

Advanced Career Education (ACE) Centers → *Specialized technical concentrations available to all high school students beginning in the 11th grade with an application for admission required during the 10th grade year*

- ACE Center at Hermitage (Career Clusters and Dual Enrollment)
- ACE Center at Highland Springs (Career Clusters, High Tech Academy, and Dual Enrollment)

JROTC → *Military studies at six high schools*

- Naval JROTC - Henrico High School, Varina High School
- Marine JROTC - Hermitage High School, Highland Springs High School, J. R. Tucker High School
- Air Force JROTC - Deep Run High School

Nontraditional Programs → *Personalized program of studies requiring application for admission*

Academy at Virginia Randolph	GRAD/Performance Learning Center
Center for Diversified Studies	GAD/ISAP/GED
Creative School Involvement	Online Credit Recovery
Evening School of Excellence	Program for Academic and Career Empowerment

Advance College Academy → *A program in which students earn an advanced studies high school diploma while concurrently earning more than 60 credits from Reynolds Community College.*

Maggie L. Walker Governor's School for Government & International Studies → *Regional high school offering a college-preparatory program requiring application for admission*

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Post-Secondary Options

Four-Year College Two-Year College	Other Professional Training Apprenticeship	Military Service Work Force
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Living and Working in the 21st Century

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- SECTION II -
General
Information



General Information

Accreditation

Henrico County Public Schools are accredited by the Virginia Department of Education.

Adding or Dropping High School Courses

ADD:

- 1) Year-long courses may not be added after the first nine-weeks' grading period.
- 2) Semester courses may not be added after the first interim report of either semester.

DROP:

- 1) Any year-long courses dropped on or before the end of the first nine-weeks' grading period will not appear on the high school transcript.
Any semester courses dropped on or before the first Friday in October for first semester courses OR the first Friday in March for second semester courses will not appear on the high school transcript.
- 2) Any year-long courses dropped after the first nine-weeks' grading period OR after the first Friday in October for first semester courses or the first Friday in March for second semester courses will result in one of the following:

a) WP = (Withdrawn Passing)

NOT calculated in student GPA. WP appears on transcript in place of grade.
--

b) WF = (Withdrawn Failing)

WILL BE counted in the GPA calculation. WF will appear on transcript.
--

- 3) Year-long courses may not be dropped after the first Friday in March. Semester courses may not be dropped after completion of the first nine weeks' grading period of either semester.

Advance College Academy (ACA)

The ACA programs located at J. R. Tucker and Highland Springs High School provide students the opportunity to earn an associate degree from Reynolds Community College (JSRCC) while also earning an advanced studies high school diploma. A student successfully completing the ACA at Tucker High School will earn an associate degree in social sciences and a student successfully completing the ACA at Highland Springs High School will earn an associate degree in business administration. All 8th grade students are eligible to apply to the ACA through the same application process that is used for specialty centers. Students who are selected will take honors and AP courses while earning more than 60 credits at J. R. Tucker and Highland Springs through dual enrollment, online, and on-campus coursework from JSRCC at minimal cost to students and their parents. The JSRCC credits are eligible for transfer to colleges and universities.

Advanced Placement Examinations Program

The Advanced Placement (AP) Examinations Program is a service provided by College Board. High school students enrolled in Advanced Placement courses will take Advanced Placement College Board exams each May, and depending upon their scores, may be awarded college credit and/or advanced placement at *participating colleges and universities.

Henrico expects students taking an AP course to sit for the AP exam. Although most students who take the AP examinations are enrolled in exit-level courses with an "AP" designation, any highly motivated student may elect to take an AP exam in the subject area of his/her choice. According to information provided by College Board, the student's "learning experience may take the form of an honors class, a strong regular course, a tutorial, or an independent study."

Advanced Placement Examinations are administered in May of each year by the school's designated AP Coordinator. In June the examinations are graded on a five-point scale: 5 = extremely well-qualified; 4 = well-qualified; 3 = qualified; 2 = possibly qualified; and 1 = no recommendation. In July the scores are sent to the students, their designated colleges, and their home schools. *Colleges which participate in the Advanced Placement Examinations Program will then consider full or partial credit for scores of three or better.

For additional information on the Advanced Placement Examinations Program, students should see their school counselors or the school's AP Coordinator. Information concerning financial assistance for exam fees (for those who qualify) is available from their school counselor.

*Students should refer to the catalogue from each college or university for information concerning the institution's AP policies.

Apprenticeship

The student apprenticeship program blends school and work-site experiences that integrate high-level academics, structured technical training, and paid on-the-job experience in a wide variety of occupations. The student apprenticeship program connects the student 16 years of age or older and in the 11th or 12th grade with business and industry to begin career training before high school graduation. Additional information is available from the school counseling department.

CodeRVA

CodeRVA is a new regional public high school opening in September 2017. The school's design builds on next generation school models across the nation that rethink the use of time and space, leverage technology to advance learning, personalize learning experiences, and redesign curriculum to align with competency-based progressions. Focused on computer science, the school will offer the opportunity to complete high school requirements through a combination of blended (online and face-to-face) learning, integrated coursework, and project-based learning. CodeRVA students will be provided an opportunity to graduate with a Virginia high school diploma, an associate's degree from the community college system, industry certifications, and paid work experience in computer science-related fields.

CodeRVA is being designed to meet three specific goals:

- Redesign the high school experience to better meet the needs of today's students by reducing seat-time requirements and moving toward competency-based course completion;
- Address racial, economic, and gender inequities in STEM-related education; and
- Increase the pool of potential employees in coding and other computer science-related fields for central Virginia.

Each of the participating school divisions in central Virginia are allocated seats proportionally, based on overall membership numbers. Final selection of students will be made through an independent, computer-based lottery process. Applications for CodeRVA High School will be made available through the coderva.org website in early January. For more information, visit the coderva.org website.

College Credit

Students must complete the *Non HCPS Course Request Form* and submit it to their principal for approval in order to take college-level courses at local colleges and universities. Courses will only be added to the students' HCPS transcript if they are replacing a course that is required for graduation. To earn the verified credits, students must pass the course and the corresponding SOL end-of-course tests. They should see their school counselor for specific course and graduation requirements. Also, students must meet the admissions' requirements set forth by the university and pay the full cost for the college course taken. It is recommended that a student not enroll in a college course until approval has been granted.

Community Service Learning

Students in grades 9-12 may participate in voluntary assignments and activities to serve organizations as well as individuals in the community. Students who complete a minimum of 80 hours of community service during grades 9-12 will receive the Community Service Learning seal on their diploma and transcript notation. Interested students and parents may request a brochure from each school's community service contact person, a social studies teacher, or online at: henricoschools.us

Competency-Based Career and Technical Education (CBCTE)

Competency-Based Career and Technical Education is a systematic approach to improve the teaching/learning process. Essential elements of a CBCTE program include tasks/competencies to be achieved, student performance objectives for each of the tasks/competencies, criterion-referenced measures for evaluating performance, and formal procedures for documentation with possible industry certification and/or state/national licensing.

Comprehensive High Schools

Henrico County high schools offer a rigorous academic core program as well as Career and Technical Education programs to prepare students for higher education and for the work force. Students have the option to pursue a Standard or Advanced Studies Diploma and to participate in the following academic core programs: Advanced Placement/International Baccalaureate/Honors, College Prep (See "Instructional Grouping" in this section). All students may select electives in the fine arts, career and technical education, and general academic areas.

Comprehensive School Health Programs

The Comprehensive School Health Programs include health and physical education, student health services, school counseling, family life education, life skills instruction, and related services.

Cumulative Grade Point Average (GPA)/Class Rank

- ◆ Students who successfully complete high school courses prior to promotion from middle school earn high school credit toward graduation; however, grades earned in these courses are not counted as part of the high school cumulative grade-point average (GPA).

After promotion from the eighth grade, rising ninth graders who take high school courses in summer school earn credits toward graduation, and their grades are included in the GPA calculation.

- ◆ **Cumulative Grade Point Average (GPA)** - A four-point system, based on quality of achievement, is used in computing GPA and class rank for each student.

NOTE: NCAA and/or academic scholarships have specific grade point average requirements. See your school counselor and/or coach for details.

The following formula is used to calculate the **cumulative** GPA.

Cumulative GPA Calculation for Classes of 2017 and Beyond		
$\frac{\text{Total Grade Points}}{\text{Total Potential Credits}}$		
Total grade points include an additional .5 quality point for any Honors/IBMYP and a 1.0 quality point for any AP/dual enrollment/IBDP classes taken. Dual enrollment must be earned from a Regionally SACS accredited university.		

Use the following **definitions** to figure the above calculations:

Points per Grade Unit =

A+	97-100	4
A	93-96	4
A-	90-92	3.7
B+	87-89	3.3
B	83-86	3
B-	80-82	2.7
C+	77-79	2.3

C	73-76	2
C-	70-72	1.7
D+	67-69	1.3
D	65-66	1
F	below 65	0
WF		0
WP	Not counted in calculation	

Definitions as reflected on the transcript:

Total Grade Points = the sum of (number of credits earned x Points per Grade Unit)

Total Credits Attempted = total credit of courses taken whether passed or failed

NOTE: Dropping a course may affect your GPA.

- 1) Any year-long courses dropped on or before the end of the first nine-weeks' grading period will not appear on the high school transcript.
Any semester courses dropped on or before the first Friday in October for first semester courses or the first Friday in March for second semester courses will not appear on the high school transcript.
- 2) Any courses dropped after the first nine-weeks' grading period OR after the first Friday in October for first semester courses or the first Friday in March for second semester courses will result in one of the following:
 - a) WP = (Withdrawn Passing) NOT calculated in student GPA. WP appears on transcript in place of grade.
 - b) WF = (Withdrawn Failing) WILL BE counted in the GPA calculation. WF will appear on transcript.
- 3) Year-long courses may not be dropped after the first Friday in May.
Semester courses may not be dropped after completion of the first nine-weeks' grading period of either semester.

Call your school counselor if you have questions regarding GPA calculations.

◆ Class Rank

Students are ranked numerically, in ascending order, according to GPA at the end of the junior year and at the end of first semester of the senior year. Class rank is computed into a percentile with 0% being the highest and 100% being the lowest.

NOTE: Only students earning verified credit are included in class rank.

Diploma Seals

Regulations Establishing Standards for Accrediting Public Schools in Virginia contain provisions for awards for exemplary performance for students who meet the requirements for graduation. Students who demonstrate academic excellence may be eligible for one or more of the following awards:

1. **The Governor's Seal** shall be awarded to students who complete the requirements for an Advanced Studies Diploma with an average grade of "B" or better and successfully complete college-level coursework that will earn the student at least nine transferable college credits in Advanced Placement (AP), International Baccalaureate (IB), Cambridge, or dual enrollment courses.
2. **The Board of Education Seal** shall be awarded to students who complete the requirements for a Standard Diploma or Advanced Studies Diploma with an average grade of "A".
3. **The Board of Education Career and Technical Education Seal** will be awarded to students who earn a Standard or Advanced Studies Diploma and complete a prescribed sequence of courses in a career and technical education concentration or specialization that they choose and maintain a "B" or better average in those courses; or (i) pass an examination or an occupational competency assessment in a career and technical education concentration or specialization that confers certification or occupational competency credential from a recognized industry, trade or professional association or (ii) acquire a professional license in that career and technical education field from the Commonwealth of Virginia. The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements. Please view the following Web link for additional information:
http://www.doe.virginia.gov/instruction/graduation/diploma_seals/
4. **The Board of Education Seal of Advanced Mathematics and Technology** will be awarded to students who earn either a Standard or Advanced Studies Diploma and (i) satisfy all of the mathematics requirements for the Advanced Studies Diploma (four units of credit including Algebra II; two verified units of credit) with a "B" average or better; and (ii) either (a) pass an examination in a career and technical education field that confers certification from a recognized industry, or trade or professional association; (b) acquire a professional license in a career and technical education field from the Commonwealth of Virginia; or (c) pass an examination approved by the Board that confers college-level credit in a technology or computer science area. The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements. Please view the following Web link for additional information: http://www.doe.virginia.gov/instruction/graduation/diploma_seals/

5. **The Board of Education Seal for Excellence in Civics Education** will be awarded to students who earn either a Standard or Advanced Studies Diploma and: (i) complete Virginia and United States History and Virginia and United States Government courses with a grade of "B" or higher; and, (ii) have good attendance and no disciplinary infractions as determined by local school board policies and, (iii) complete 50 hours of voluntary participation in community service or extracurricular activities. Activities that would satisfy the requirements of clause (iii) of this subdivision include: (a) volunteering for a charitable or religious organization that provides services to the poor, sick or less fortunate; (b) participating in Boy Scouts, Girl Scouts, or similar youth organizations; (c) participating in JROTC; (d) participating in political campaigns or government internships, or Boys State, Girls State, or Model General Assembly; or (e) participating in school-sponsored extracurricular activities that have a civics focus. Any student who enlists in the United States military prior to graduation will be deemed to have met this community service requirement.
6. **The Board of Education Seal of Biliteracy** will be awarded to students who earn a Board of Education-approved diploma and pass all required End-of-Course Assessments in English reading and writing at the proficient or higher level. Students will demonstrate proficiency at the intermediate-mid level or higher in one or more languages other than English as demonstrated through an assessment from a list approved by the Superintendent of Public Instruction. American Sign Language qualifies as a language other than English. For additional information on this seal, see <http://sealofbiliteracy.org>
7. Students may receive other seals or awards for exceptional academic, career and technical, citizenship, or other exemplary performance in accordance with criteria defined by the local school board.

Dual Enrollment

Dual enrollment is a plan that allows high school juniors and seniors (with some exceptions) to meet the requirements for high school graduation while simultaneously earning *college credit. Most dual-enrollment students are served by the division-wide plan with Reynolds Community College, ECPI University, John Tyler Community College and Longwood University. Students participating in the High Tech Academy at the ACE Center at Highland Springs receive dual credits from Virginia Commonwealth University. In order to participate in dual enrollment courses, students are recommended by their high school principal or school counselor and have permission from their parents. Students must meet course prerequisites and may have to take and pass a college-readiness placement test. More information may be acquired from the school counseling office.

Course offerings have been designed to meet the needs of students in planning their program of study. Decisions depend on student enrollment, availability of faculty, facilities, and financial resources. In the event that a course cannot be offered, the student may, however, have the option to take a concurrent course at the college location. Dual enrollment course offerings are subject to agreement between Henrico County and the respective colleges.

*Students should consult college catalogues about the transfer of college credit between colleges and universities as policies may vary.

Eligibility for Activities

◆ *Middle School Eligibility*

To be eligible for athletics, a student must maintain a 2.0 minimum grade point average and pass English, mathematics, science, social studies, and one additional course. Eligibility for fall sports requires that students pass five courses (referenced above) the preceding year; winter sport participants must have passed the five courses at the end of the previous year and at the end of the first semester of the current year if the season goes into second semester; spring sport participants must have passed the five courses at the end of the first semester of the current year. Before practicing, trying out, or becoming a member of any athletic team, the student must submit to the principal an accurate Middle School Athletic Participation/Parental Consent/Physical Examination Form that is completely filled in and properly signed.

◆ *High School Eligibility*

To be eligible to participate in interscholastic athletics, a student must maintain a 2.0 minimum grade point average. For athletics and any other performance-related activities sponsored by the Virginia High School League, the student must meet the following requirements:

- ◆ Must be a bona fide student in good standing of the school represented.
- ◆ Must have been promoted to the ninth grade (eighth-grade students may be eligible for junior varsity competition in sports not offered at the middle school level).
- ◆ Must have enrolled no later than the fifteenth day of the current semester.
- ◆ Must have passed at least five credit courses the preceding year and must be currently taking not fewer than five credit courses for participation during the first semester.
- ◆ Must have passed at least five credit courses the previous semester and must be currently taking no fewer than five credit courses for participation during the second semester.
- ◆ Must not have reached his or her nineteenth birthday on or before the first of August of the current school year.
- ◆ Must not, after entering the ninth grade for the first time, have been enrolled in or have been eligible for enrollment in high school more than eight consecutive semesters.
- ◆ Must submit to the principal before practicing, trying out, or becoming a member of any school athletic team, a High School Athletic Participation/Parental Consent/Physical Examination Form, completely filled in and properly signed. The form attests that the student has been examined after May 1 of the previous school year and found to be physically fit for athletic competition and that his or her parents consent to participation.

Eligibility to participate in interscholastic athletics is a privilege earned by meeting not only the above listed minimum standards, but also all other standards set by the Virginia High School League, district, and school. Students or parents who have questions regarding eligibility or who are in doubt about the effect an activity might have on eligibility should check with the principal or director of student activities.

English as a Second Language (ESL)

ESL is provided to all students who are designated as limited English proficient (LEP) at proficiency levels 1-5 in grades K-12 at all schools. Half-day zone center programs for Level 1 middle school students are offered at Brookland Middle School and Quiocasin Middle School. Half-day zone center programs for Level 1 and Level 2 ELs from Deep Run High School, Glen Allen High School and Godwin High School are offered at Highland Springs High School and Hermitage High School.

Examinations

An examination, 100 minutes in length, is given at the end of each semester in all high school equivalent courses. For a semester course the examination score counts 20% of the final grade; for a year-long course each semester's examination score counts 10% of the final grade. (See "Grading Scale" in this section.)

Exceptional Education

Exceptional Education and related services are available for all students with identified disabilities that adversely affect their educational performance. This specially designed instruction is described in the student's individualized education program (IEP) and is provided to the student in the least restrictive environment. Exceptional education services are available to all students found eligible through an evaluation/eligibility process, and who have an IEP.

Students with disabilities may participate in all school activities. They may earn any type of diploma based on completion of curriculum and assessment requirements and/or individualized programs. (Refer to "Graduation Requirements" in Section I.)

The programs available at Virginia Randolph Education Center (VREC) provide educational services for students with disabilities. The center's ultimate goal is to have students improve academically and behaviorally to the extent that they can return to their home schools. Programs are provided according to individual student needs as designated in the student's IEP.

Gifted and Advanced Learners

The following middle and high school services are offered to gifted and other advanced learners:

Grades 6-8

- ◆ Direct gifted services for identified students are provided by the Secondary Gifted Resource Teacher assigned to each middle school. Sixth grade gifted students are required to take a gifted enrichment seminar class.
- ◆ Advanced sections in English provide students the opportunity to examine topics in greater depth and breadth. The grade-level curriculum is modified to include complex learning tasks, variations in pacing, and in-depth independent investigations.
- ◆ Acceleration allows students to take high school credit courses in world history, world language, earth science, mathematics (Algebra I, geometry), Art I, family and consumer sciences, technology education, and business and information technology.
- ◆ The International Baccalaureate Middle Years Program at Fairfield, Moody, and Tuckahoe Middle Schools contains a curriculum model that emphasizes the importance of a holistic view of knowledge, intercultural awareness, and communication.
- ◆ Please refer to Course #9840 “21st Century Inquiry and Leadership” on page 86 in reference to high school credit.

Note: For any high school credit-bearing course taken in middle school, parents may request that grades be omitted from the student's high school transcript. However, the passing SOL test will be posted on the student's test results record. The deadline for making such a request is June 30. The student will not earn course credit or verified credit for the course until the course is retaken and passed. Contact the student's middle school for procedures and more detailed information.

Grades 9-12

- ◆ Direct gifted services for identified students are provided by the Secondary Gifted Resource Teacher assigned to each high school.
- ◆ Honors courses that provide advanced challenges in all core content areas
- ◆ Advanced placement courses that provide the means for colleges to grant credit, placement, or both to students who have applied themselves successfully to introductory college level work
- ◆ International Baccalaureate courses that provide the means for colleges to grant credit, placement, or both
- ◆ Specialty Center programs that address a wide range of student interests (for further information, see “Specialty Centers” in this section)
- ◆ Maggie L. Walker Governor's School for Government & International Studies (For further information, see "Maggie L. Walker Governor's School" in this section.)

Grading Scale and Honor Roll

The grading scale for Henrico County Public Schools is as follows:

2017-18 Grading Scale

Letter Grade	Percent Grade	4.0 Scale	Letter Grade	Percent Grade	4.0 Scale
A+	97-100	4.0	C+	77-79	2.3
A	93-96	4.0	C	73-76	2.0
A-	90-92	3.7	C-	70-72	1.7
B+	87-89	3.3	D+	67-69	1.3
B	83-86	3.0	D	65-66	1.0
B-	80-82	2.7	F	Below 65	0.0

Henrico County teachers use an electronic grading system to calculate all grades. This system uses standard rounding procedures to determine marking period grades.

Final grades for semester courses are averaged as Marking Period 1 (40%), Marking Period 2 (40%), and Final Exam (20%). Final grades for year-long courses are averaged as Marking Period 1 (20%), Marking Period 2 (20%), First Semester Exam (10%), Marking Period 3 (20%), Marking Period 4 (20%), and Final Exam (10%).

NOTE: Exam exemptions will alter these percentages. The following formulas are used:

$$\text{Final Full Year course (non-exempt): } \frac{(\text{MP1} * 2) + (\text{MP2} * 2) + \text{EX1} + (\text{MP3} * 2) + (\text{MP4} * 2) + \text{EX2}}{10}$$

$$\text{Final Full Year course (exempt): } \frac{(\text{MP1} * 2) + (\text{MP2} * 2) + \text{EX1} + (\text{MP3} * 2) + (\text{MP4} * 2)}{9}$$

$$\text{Second Semester course (non-exempt): } \frac{(\text{MP3} * 4) + (\text{MP4} * 4) + (\text{EX2} * 2)}{10}$$

$$\text{Second Semester course (exempt): } \frac{(\text{MP3} * 4) + (\text{MP4} * 4)}{8}$$

Guidelines for Honor Roll

Honor Roll is calculated each marking period and each semester as well as for final and cumulative (MP1-MP3) grades. Specific criteria for students' gaining honor roll status include (but are not limited to) the following:

- Students must be taking four academic subjects.
- Students may not have a D or an F in any marking period, semester, final, or cumulative grade. (Students may have any grade on exams.)
- Students with an "I" or an "N" in a course will be flagged for consideration at the school level.
I = Incomplete, N = No grade
- Students' non home-school courses will be considered in all calculations.
- Students receiving U, WP, and WF will be excluded from Honor Roll.
- Letter grades of S (Satisfactory) or P (Pass) are not considered in Honor Roll calculations.

NOTE: Honor Roll and GPA are calculated differently. Please see your school counselor for honor roll calculation information.

Homebound/Home-based Program

The Homebound Program provides instructional assistance and support for core academic courses when a medical determination is made that a student is unable to attend classes for a temporary period of time. Homebound support is provided by VA state-licensed teachers. A *Medical Certification of Need* form and a treatment plan must be completed and signed by a licensed physician, psychiatrist or clinical psychologist and the parent. The certification of need form can be obtained from your school counseling office or downloaded from the HCPS website.

Home-based services authorized through an Individualized Education Program Team serve as a short-term transitional placement until an appropriate long-term placement can be arranged.

Instructional Grouping

Students are often grouped for instruction in core academic middle and high school courses, specialty center courses, and some elective courses. Grouping is based on a student's motivation, post-secondary and career goals, prior academic performance, standardized test scores, and recommendations from teachers, parents, and counselors.

Most high schools offer the following levels of grouping:

◆ College Preparatory

- Rigorous implementation of the Standards of Learning to assure high performance on SOL end-of-course tests (Refer to Standards of Learning (SOL), End-of-Course Tests, Verified Credits, and Substitute Assessments in this section.)
- College preparatory curriculum designed for students who plan to pursue higher education in the liberal arts, in the fine and performing arts, in mathematics and science
- Career preparation emphasizing high performance standards required for successful pursuit of higher education and/or gainful employment (See Career Clusters in Section III.)
- Independent reading, writing, and short-range and long-range projects required outside of class
- Emphasis on critical thinking, stressing comprehension, application, analysis, synthesis, and evaluation
- Technical and business-world application of subject matter

◆ **Advanced Placement/International Baccalaureate/Honors**

- Rigorous coursework designed to challenge the highly motivated and academically gifted/advanced student
- Independent reading, writing, and long-range projects required outside of class
- Emphasis on critical thinking skills, stressing higher order analysis, synthesis, and evaluation
- Preparation for four-year college/university and Advanced Placement and IB Examinations in exit-level courses (See "Advanced Placement Examinations Program" and "IB Diploma Program" in this section.)
- Development of career awareness through appropriate connections between subject matter and a variety of career options

Note: *Advanced Placement, IB Diploma and Honors course numbers will be accompanied by the letter A, Y, Z, or IB on the student request form, report card, and transcript, indicating that a weighted credit is awarded. The letter "X" indicates a Specialty Center course and "XA" indicates a Specialty Center Honors course.*

International Baccalaureate Diploma Program

High school students enrolled in an International Baccalaureate Diploma Program will complete mandatory internal assessment in their IB course work and sit for corresponding International Baccalaureate examinations in May of each year.

Students can receive a score of 1 (poor or elementary) to 7 (excellent) for each subject studied. Universities and colleges typically expect individual Higher Level (HL) subject scores to be a minimum of 4 (satisfactory) or sometimes 5 (good) for credit considerations. See the IB Diploma recognition policy at the university website to determine course credit. Also consult the university or college website to determine second year enrollment status and scholarship availability for those students earning the IB Diploma.

Maggie L. Walker Governor's School for Government and International Studies

This regional high school offers an advanced college preparatory curriculum emphasizing government, international studies, world languages, science, mathematics, and fine arts as well as opportunities for international learning experiences. Eighth-grade students residing in Henrico County are selected on a competitive basis through an application process beginning mid-October through mid-March. Students are eligible to apply if they meet the following criteria:

- reside in Henrico County, Virginia
- be enrolled in or have completed a World Language and successfully pass/passed the course for high school credit
- be enrolled in Algebra I or a higher-level math course during the eighth grade year and successfully pass the course for high school credit
- have a B average according to Henrico County's grading scale for the four core subjects at the end of the 7th grade year. Students who do not have a B average, but would like to be considered as an applicant due to special circumstances, must provide a letter of explanation to the Educational Specialist for Gifted Education Programs, Henrico County Public Schools

To ensure regional representation at each public middle school, HCPS' internal selection process has two phases. For phase one, HCPS will establish an applicant pool based on the composite score from the MLWGS regional application evaluation process. HCPS will offer admission to the top qualifying applicant from each public middle school that meets the regional established cut-off score in that pool. During phase two, the remaining slots will be offered to all applicants by numerical rank on the MLWGS composite score from highest to lowest. Applicants participating in a special program such as the IB Program or out of zone program will be considered with the public middle school they attend in eighth grade. All home-school or private school applicants will be considered in phase two of the selection process.

Admission handbooks and applications will be available beginning the middle of October with an application deadline in early December. Eighth-grade students enrolled in Henrico County Public Schools may obtain an application from their middle school counselor. Eighth-grade students residing in Henrico County and not enrolled in public schools should contact the Educational Specialist, Gifted Education Programs, Henrico County Public Schools, (804) 652-3765. For additional information, visit the Governor's School website at www.gsgis.k12.va.us.

Military Science/JROTC

Military Science/JROTC is offered at six of the county's high schools. Marine Corps JROTC is offered at Hermitage, Highland Springs, and J. R. Tucker. Naval JROTC is offered at Henrico and Varina, and Air Force JROTC is offered at Deep Run. (See Section V, Course Descriptions.)

NCAA Eligibility Center for College-Bound Athletes

Students who plan to participate as college freshmen in Division I or II athletic programs must register and be certified by the NCAA (National Collegiate Athletic Association) Eligibility Center. Please go to <http://www.ncaa.org> for the most up-to-date information regarding registering online and paying fees. Students should specifically review core course requirements, SAT/ACT requirements, recruiting rules and amateur status. There are specific GPA/SAT/ACT requirements for scholarships. See your school counselor for more information.

Checklist for College-Bound Student Athletes:

- Complete the registration process with the NCAA Eligibility Center at the beginning of your junior year at <http://ncaaeligibilitycenter.org>
- Ask your school counselor to send your transcript to the Eligibility Center at the end of your junior year
- Take the ACT or SAT and use code 9999 to have scores sent directly to Eligibility Center
- Request final amateurism certification during your senior year
- Ask your high school counselor to submit your final transcript with proof of graduation

Nontraditional Programs

Henrico County Public Schools offers a variety of nontraditional programs to meet the needs of all students. The following programs provide students with choices in their educational program to be prepared for life in the 21st century.

Note: *The HCPS Code of Student Conduct applies to all students participating in any nontraditional program.*

Academy at Virginia Randolph

The Academy at Virginia Randolph is open to all high school students who want or need an alternate approach to education. In a compassionate atmosphere fostered by a competent and concerned staff, students are encouraged to develop their talents and skills needed to meet the demands of the 21st century. Assisted by school counselors and instructors, students design their own programs of study to meet their needs and to serve as a foundation for their chosen career. The staff works closely with students and their families to pursue the students' educational and occupational career goals. School, family, and community involvement are all elements of the program. Students interested in enrolling at the Academy must complete an application signed by a parent and have school counselors supply the required student information. Once the application has been received, applicants will be notified of a required student and parent information session. Additionally, the prospective student and a parent must meet with the vocational instructor to develop a career plan. Acceptance to the Academy is based on space availability.

All students attending AVR will be working toward a standard or advanced high school diploma. Students may also choose to work toward a career and technical education certificate in addition to their high school diploma.

Center for Diversified Studies

The Center for Diversified Studies, located at the Academy at Virginia Randolph, provides personalized programs for students who want to complete their high school education and who, for various reasons, are unable to complete the last few courses required for graduation at their home high school. Options for courses range from college level to career and technical certificate classes. This nontraditional, flexible educational structure may lead to one of the diploma options described in Section I. The Center's ultimate goal is to coordinate classes for students in order to help them obtain required credits for graduation. A personalized plan based on each student's educational and career goals will be implemented to identify where the student will be taking classes.

Communities in Schools Performance Learning Center Program

The PLC program is designed for students who have struggled in the traditional high school setting, but still have a desire to get their diploma. The PLC program, which is located at 2915 Williamsburg Road, will structure a student's learning to meet individual needs in a much smaller school setting through online courses and credit recovery. The individualization of the program allows for most students to complete the program within 18 months or less while earning a standard or advanced studies high school diploma.

Edgenuity - (Online Courses)

- High school students who are behind in credits or those who need an alternative option within the comprehensive school will be given an opportunity to take courses online. Online courses are monitored by a licensed teacher and are taken along with regularly scheduled classes at the comprehensive school. Online courses can often be accelerated because the instruction and assignments are accessible to students 24/7.
- An Edgenuity contract is required. Students should have access to Internet and a laptop at home. Students must complete the course within a specific time frame. If a student does not complete within the prescribed time frame an "F" will be reflected on their transcript.

Evening School of Excellence

The Evening School of Excellence serves high school students. Designed to help students get back on track, the program provides an opportunity for students to complete coursework and recover credits needed for graduation through evening classes offered at two sites, Highland Springs High School and the Academy at Virginia Randolph. The instructional program addresses the learning styles of students through smaller classes, more individualized attention, differentiated teaching strategies, and online course offerings. Students are referred through their home school administrator and/or school counselor. Please note there is an additional fee to take Evening School of Excellence courses.

Individual Student Alternative Education Plan (ISAEP) Program

- Serves eligible students who are at least 16.5 - 18 years old
- Targets students with strong academic skills who have not been successful in a traditional school setting
- Provides instruction for the GED (General Educational Development) Certificate
- Provides career counseling and occupational skills training through participation in work-based learning and exploration of post-secondary opportunities
- Requires an application, mandatory orientation, adherence to attendance requirements and an entrance exam (Test of Adult Basic Education - TABE test).

Program for Academic and Career Empowerment at Virginia Randolph (PACE)

PACE is a nontraditional program that serves overage middle school students. The program is designed to remediate students and allow them to experience success with their peer group in high school the following school year. This unique program provides students with small class sizes, an individualized learning plan, faculty mentorship, blended online curriculum, and project-based learning steeped in collaboration, problem solving, critical thinking, and innovation. Students also explore a wide variety of careers as they earn up to three high school elective credits.

Seventh and eighth grade students who are one or more years overage are eligible for the program. All overage students will be reviewed and recommended to the program by their comprehensive middle school. Overage students will be enrolled in PACE with the intent of them returning to the comprehensive high school or the Academy at Virginia Randolph with three to five high school credits the following year.

Number of Credits Per Year

- Students may not audit a class.
- Students may not enroll in more than 7 credits per school year without principal approval.

Number of Periods Per Day

All students shall maintain a full-day schedule of classes unless (1) the student is enrolled in a cooperative work/apprenticeship program or (2) the Superintendent of Schools or his designee grants the student a waiver.

Promotion Policies

Middle School

To qualify for promotion between middle school grades, or from middle school to high school, students must earn a passing final grade in the four core subject areas of English, mathematics, science and social studies. Students who fail one or more core subjects are retained and recommended to attend summer school to retake the failed courses. If the student does not attend summer school, he/she will be retained.

High School

Satisfactory completion of courses which meet graduation requirements determines promotion or retention on a course-by-course basis.

The requirements for classification of a student at specific grade levels are indicated below:

10th Grade - A student must have earned a minimum of 5 credits, 3 of which must be from the disciplines of English, social studies, mathematics, science, physical education, or economics and personal finance.

11th Grade - A student must have earned a minimum of 10 credits, 6 of which must be from the disciplines of English, social studies, mathematics, science, physical education, or economics and personal finance.

12th Grade - A student must have earned 15 credits, 10 of which must be from the disciplines of English, social studies, mathematics, science, physical education, or economics and personal finance.

School Counseling

School counseling is a planned, sequential program of services designed to aid children in mastering the academic, personal/social, and career tasks which are essential to the development of academic, technical, and life skills. The primary task of the school counselor is to assist students and their parents in identifying the appropriate pathways that will provide a positive academic, social, and career direction.

School/Parent Communication on Student Progress

The school year is divided into quarters of nine weeks each; every student receives a report card following each quarter. Parents are encouraged to participate in the PowerSchool Parent Portal where they can check student progress. In addition, parents have opportunities for parent/teacher dialogue through conferences and telephone and/or e-mail contacts. Appointments are recommended for conferences.

Sequential Electives - Standard Diploma

In order to obtain a 22-credit Standard Diploma, students must take two electives that are sequential (coursework that builds similar skills as defined by the Virginia Department of Education). A course may satisfy the requirement for fine arts or Career and Technical Education and still meet the requirement for sequential electives. Ex. Art I followed by Art II counts as both the sequential electives and the fine arts or Career and Technical Education requirement.

Specialty Centers

Specialty Centers, located in each Henrico County comprehensive high school and three middle schools, offer unique choices for HCPS students who have specific educational and/or career goals. These centers provide opportunities for students to concentrate on specialized interests while completing a rigorous college-preparatory program. In addition to an informational booklet given to all 8th graders who are enrolled in HCPS, Information Sessions and Open Houses during the first semester provide in-depth information about Center curriculum and the application process. Students must apply to Centers in December of their 8th grade year+ and may use the application available online at henricoschools.us. Students who are accepted and choose to attend a Specialty Center will become full-time students at the high school which houses the Center; however, students who withdraw from a Specialty Center prior to their junior year will return to their home school to complete their remaining high school years. HCPS provides transportation to all Centers. See Section IV for more information.

+ For IBMYP at the middle school level, students must apply during their 5th grade year.

Standards of Learning (SOL), End-of-Course Tests, Verified Credits, and Substitute Assessments

The State of Virginia has established a set of K-12 subject-area Standards of Learning (SOL) with corresponding grade level and end-of-course SOL tests. These SOLs are incorporated in the Secondary pacing guides found on the Henrico County Public Schools website. All middle and high school students enrolled in applicable high school credit-bearing courses are required to take corresponding end-of-course tests or substitute tests.

Note: For any high school credit-bearing course taken in middle school, parents may request that grades be omitted from the student's high school transcript. However, the passing SOL test will be posted on the student's test results record. The deadline for making such a request is June 30. The student will not earn course credit or verified credit for the course until the course is retaken and passed. Contact the student's middle school for procedures and more detailed information.

Remediation opportunities (before, after, during school and summer school) will be provided in certain subject areas for students failing one or more of the Standards of Learning tests (SOL tests). Students and parents should check with principals in selecting appropriate programs.

Students who pass the course and achieve a passing score on an end-of-course test are awarded a verified unit of credit in that course. A verified unit of credit is awarded for a course in which the student earns a standard unit of credit and achieves a passing score on a corresponding end-of-course SOL test or a substitute assessment approved by the Board of Education.

The State has established the number of standard credits and verified credits required for the Standard Diploma and for the Advanced Studies Diploma (See "Graduation Requirements" in Section I.):

Students seeking a **Standard Diploma** must pass 6 end-of-course tests: 2 English plus 1 mathematics, 1 science, 1 social studies/history, and 1 of student's choice.

Students seeking an **Advanced Studies Diploma** must pass 9 end-of-course tests: 2 English, 2 mathematics, 2 science, 2 social studies/history, and 1 of the student's choice.

Verified credits may be earned in each of the following core content areas:

ENGLISH

For the 22-Credit Standard Diploma and the 26-Credit Advanced Studies Diploma, Virginia graduation requirements specify four (4) course credits with two (2) verified credits earned by passing the following SOL English end-of-program tests.

- ✓ SOL English end-of-course test, **EOC Writing** (covers grades 9-10 content; 2 parts, 1 verified credit) will be administered to all English tenth-grade students enrolled in the following courses:
 - English 10 (#1140)
 - IBMYP English, Level Five (#IB1140)
- ✓ SOL English end-of-course test, **EOC Reading** (covers grades 9-11 content; 1 verified credit) will be administered to all English eleventh-grade students enrolled in the following courses:
 - English 11 (#1150)
 - AP English 11 Language & Composition (#1196)
 - IBDP English HL (#IB1150)

MATHEMATICS

Virginia graduation requirements for the 22-Credit Standard Diploma specify three (3) course credits with one (1) verified credit; and for the 26-Credit Advanced Studies Diploma, four (4) course credits with two (2) verified credits are required.

- ✓ SOL Algebra I end-of-course test will be administered in the following classes:

- Algebra I (#3130)

- Algebra I - 2 year Sequence Pt. 2 (#3132)*

- IBMYP Algebra I (#IB3130)

- ✓ SOL Geometry end-of-course test will be administered in the following classes:

- IBMYP Geometry (#IB3143)

- Engineering Mathematics I (#3343)

- PSC Geometry (#3143)

- Mathematical Investigations I (#3243)

- Geometry - 2 year Sequence Pt. 2 (#3145)*

- ✓ SOL Algebra II end-of-course test will be administered in the following classes:

- Algebra II (#3135)

- Mathematical Investigations II (#3233)

- IBMYP Algebra II (#IB3135)

- Engineering Mathematics II (#3333)

*Exceptional Education only

SCIENCE

Virginia graduation requirements for the 22-Credit Standard Diploma specify three (3) laboratory science credits (from at least two (2) different science disciplines) with one (1) verified credit; and for the 26-Credit Advanced Studies Diploma, four (4) laboratory science credits (from at least three (3) different science disciplines) and two (2) verified credits are required.

- ✓ SOL Earth Science end-of-course test will be administered to students enrolled in the following courses:

- Earth Science (#4210)

- AP Environmental Science (#4270)*

- Earth Science I - Part 2 (4201)**

- ✓ SOL Biology end-of-course test will be administered to students enrolled in the following courses:

- Biology I (#4310)

- AP Biology (#4370)*

- IBMYP Biology (#IB4310)

- AP Biology - Research Based (#4341)*

- Biology II - Advanced Survey of Biology Topics (#4320)*

- Biology I - 2 year Sequence Pt. 2 (#4301)**

- ✓ SOL Chemistry end-of-course test will be administered to students enrolled in the following courses:

- Chemistry I (#4410)

- IBMYP Chemistry (#IB4410)

- AP Chemistry (#4470)*

*Students would only sit for the SOL test if they had not taken or passed it with the first-year course.

**Exceptional Education only

SOCIAL STUDIES

Virginia graduation requirements for the 22-Credit Standard Diploma specify three (3) course credits with one (1) verified credit; and for the 26-Credit Advanced Studies Diploma, four (4) course credits with two (2) verified credits are required.

- ✓ SOL World History I end-of-course test will be administered to students enrolled in the following courses:
 - World History & Geography I (#2215)
 - World Geography (#2210)
 - IBMYP World History & Geography I, Level Three (#IB2215)
- ✓ SOL World History II end-of-course test will be administered to students enrolled in the following courses:
 - World History & Geography II (#2216)
 - IBMYP World History & Geography II Level Four (#IB2216)
 - Immersion World History & Geography II (#2216)
- ✓ SOL Virginia and United States History end-of-course test will be administered to students enrolled in the following courses:
 - Virginia and United States History (#2360)
 - IBDP History of the Americas HL (#IB2360)
 - AP Virginia and United States History (#2319)
 - Virginia and United States History - 2 year Sequence Pt. 2 (#2362)*

*Exceptional Education only

SUBSTITUTE ASSESSMENTS (FOR SOL TESTS)

Assessments which substitute for SOL tests and enable students to earn verified credit must meet the following minimum criteria:

1. The substitute test must be standardized and graded independently of the school or school division in which the test is given;
2. The substitute test must be knowledge-based;
3. The substitute test must be administered on a multistate or international basis;
4. To be counted in a specific academic area, the substitute test must measure content that incorporates or exceeds the SOL content in the course for which verified credit is given; and
5. The grade or cut score will be pre-determined for approved substitute tests.

The State Board of Education has approved various tests which may substitute for certain SOL tests. See the DOE website (www.doe.virginia.gov/testing/substitute_tests/index.shtml) for current listings and minimum acceptable scores.

Student Activities

Students are encouraged to explore interests and to participate in student activities that tend to promote and build self-esteem, character, and leadership qualities. Numerous opportunities available for students to excel in activities beyond the classroom include the following:

- ◆ athletics
- ◆ performing groups
- ◆ intramural activities
- ◆ academic competitions
- ◆ co-curricular organizations
- ◆ honorary societies
- ◆ community service
- ◆ service clubs
- ◆ publications
- ◆ interest clubs

For additional information check the school's website.

Summer Programs

Henrico County Public Schools offers a variety of programs every summer. Tuition is required for most courses. Academic and enrichment programs are offered at most of the middle schools. Career awareness programs for high school students are also offered at both ACE Centers. A comprehensive summer school program either on-site or online is offered to all high school students. Remediation opportunities are provided for students who failed one or more of the Standards of Learning tests (SOL tests) or the W!SE examination. All schools have the appropriate forms and information for registration and enrollment of students. Information concerning possible financial assistance is available through each school's principal.

Testing Program:

An overview of division-wide standardized tests and local assessments

Testing is an essential part of a student's education. With test results, students, parents, teachers, and administrators can determine not only the student's strengths but also the school's curricular strengths. State-mandated test scores are a part of the student's school record.

The following standardized tests may be administered to middle and high school students through the Department of Research and Planning:

<i>Grade</i>	<i>Test</i>	<i>Dates</i>
6 - 8	NWEA (Northwest Evaluation Association) - MAP (Measure of Academic Progress) assessment given to students in grades 6-8 in Reading and Math.	Fall, Winter (optional), Spring
6 - 12	Virginia Standards of Learning (SOL) Tests (Refer to "Standards of Learning and End-of Course Tests.")	Spring Summer, Fall (for certain students)
6 - 12	Access/WIDA Test (LEP students only)	Spring
10 - 11	PSAT/NMSQT (see following paragraph)	Fall
9 - 12	Career & Technical Education (CTE) Industry Credentials	Fall, Winter, Spring

Unique to Henrico County Public Schools is the opportunity for all 10th grade students to take, free of charge, the Preliminary Scholastic Aptitude Test (PSAT)/National Merit Scholarship Qualifying Test (NMSQT) given in October. The official PSAT/NMSQT taken during the fall of the junior year is a requirement for eligibility for some scholarships. (A fee is required.)

Henrico County Public Schools also administers the following local assessments/simulation assessments correlated to the Standards of Learning in the core content areas:

<i>Grade</i>	<i>Content Areas</i>	<i>Dates</i>
8 & 10	English (writing)	Fall
6 - 7	Science 6, Life Science	Spring

Transfer Students

For all students in social studies and science for the standard diploma only, LAVCs (Locally Awarded Verified Credits) are available in English and Mathematics for students with disabilities who are eligible for credit accommodations stipulated in each student's IEP/504 plan. In order to be eligible for an LAVC a student must

- Pass the high school course
- Score 375-399 scale score range on an SOL test after taking the test at least twice. Special circumstances may be considered for first time transfers regarding meeting graduation requirements earning verified credits. Please contact your school counselor.

NOTES



- SECTION III -


Career and Technical Education (CTE)

- Career Clusters
- Descriptions and Course Offerings for Each Cluster and CTE Industry Credential Information
- Advanced Career Education (ACE) Center Programs: An Overview of Offerings
- High Tech Academy



Career & Technical Education (CTE)

Career Cluster Descriptions

	The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources
	Careers in designing, planning, managing, building and maintaining the built environment
	Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services
	Business Management and Administration careers encompass planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Business Management and Administration career opportunities are available in every sector of the economy
	Planning, managing and providing education and training services, and related learning support services
	Planning, services for financial and investment planning, banking, insurance, and business financial management
	Executing governmental functions to include Governance; National Security; Foreign Service; Planning; Revenue and Taxation; Regulation; and Management and Administration at the local, state, and federal levels
	Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development
	Hospitality & Tourism encompasses the management, marketing and operations of restaurants and other foodservices, lodging, attractions, recreation events and travel related services
	Preparing individuals for employment in career pathways that relate to families and human needs
	Building Linkages in IT Occupations Framework: For Entry Level, Technical, and Professional Careers Related to the Design, Development, Support and Management of Hardware, Software, Multimedia, and Systems Integration Services
	Planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services
	Planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering
	Planning, managing, and performing marketing activities to reach organizational objectives
	Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services
	Planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance



The Career Clusters icons are being used with permission of the:
States' Career Clusters Initiative, 2009, www.careerclusters.org

Career & Technical Education

Course Offerings

CTE Industry Credentials are available. A credential is defined as an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness skills assessment.



AGRICULTURAL EDUCATION

Detailed course descriptions can be found on page 74 in Section V of the Planning Guide.

Greenhouse Management
Landscaping



EDUCATION for EMPLOYMENT (EFE)

Detailed course descriptions can be found on page 101 in Section V of the Planning Guide.

Introduction to Education for Employment
Education for Employment I and II
Work Experience Cooperative Education Program



BUSINESS and INFORMATION TECHNOLOGY

Detailed course descriptions can be found on pages 76-77 in Section V of the Planning Guide.

Accounting
Accounting II
Advanced Microsoft IT Academy (Honors)
Advanced Web Development/Advanced Programming
Business Law
Business Management
Computer Applications
Desktop/Multimedia Presentations
Digital Input Technologies
Economics & Personal Finance
Exploring Business Computers
Exploring Computer Science
Introduction to Coding
Legal Systems Administration
Make It Your Business
Medical Systems Administration
Microsoft IT Academy
Office Administration
Principles of Business and Marketing
Programming (Honors)
21st Century Computer Skills
Web Development/Programming
Word Processing



FAMILY and CONSUMER SCIENCES

Detailed course descriptions can be found on pages 85-86 in Section V of the Planning Guide.

Child Development and Parenting
Creative Fashion (Intro to Fashion Careers)
Culinary Arts I and II
Early Childhood Education and Services I and II
Independent Living
Introduction to Culinary Arts
Introduction to Interior Design
Introduction to Virginia Teachers for Tomorrow, Grade 8 or 9
Life Planning
Nutrition and Wellness
Relationships (Family Relations)
Teen Living 6 & 7 (FACS Exploratory I and II)
Virginia Teachers for Tomorrow I and II



HEALTH and MEDICAL SCIENCES

Detailed course descriptions can be found on page 86-87 in Section V of the Planning Guide.

Emergency Medical Technician
Nurse Aide
Pharmacy Technician
Practical Nursing I & II
Practical Nursing III
Sports Medicine
Veterinary Assistant I & II



MARKETING

Detailed course descriptions can be found on pages 88-89 in Section V of the Planning Guide.

- Advanced Global Marketing and Commerce
- Digital Marketing
- Entrepreneurship
- Fashion Marketing
- Fashion Marketing II
- Hospitality, Tourism and Catering
- Marketing
- Marketing II
- Marketing Management
- Principles of Business and Marketing
- Sports and Entertainment Management
- Sports and Entertainment Marketing
- Tourism Marketing, Sales, and Catering



MILITARY SCIENCE

Detailed course descriptions can be found on page 90 in Section V of the Planning Guide.

- Air Force JROTC
- Marine Corps JROTC
- Naval Corps JROTC



TECHNOLOGY EDUCATION

Detailed course descriptions can be found on pages 96-98 in Section V of the Planning Guide.

- Advanced Drafting and Design
- Advanced Photography (Imaging Technology)
- Architectural Drawing/Design/CAD
- Career and Technical Occupational Exploration
- Communications Systems
- Construction Technology
- Digital Visualization
- Drafting and Design
- Electronic Systems I and II
- Energy and Power
- Engineering Drawing/Design/CAD
- Engineering Explorations I
- Engineering Studies (Honors)
- Geospatial Technology
- Introduction to Photography (Semester Imaging Technology)
- Introduction to Technology
- Inventions and Innovations
- Manufacturing Systems I and II
- Materials and Processes Technology with Metals
- Materials and Processes Technology with Woods
- Production Systems with Metals
- Production Systems with Woods
- Technical Drawing/Design/CAD
- Technological Systems
- Technological Systems/Manufacturing
- Technology Foundations
- Technology of Robotic Design
- Technology Transfer
- Video and Media Technology

CTE Industry Credentials are available. A credential is defined as an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness skills assessment.



TRADE and INDUSTRIAL EDUCATION

Detailed course descriptions can be found on pages 98-100 in Section V of the Planning Guide.

Air Conditioning, Refrigeration, and Plumbing I and II
 Auto Body Repair I and II
 Automotive Technology I and II
 Barbering I, II, and III
 CAD-Computer-Aided Drafting/3D Animation I and II
 Carpentry I and II
 Computer Systems Technology I and II
 Cosmetology I, II, and III
 Criminal Justice I and II
 Diesel Technologies I and II
 Electricity and Cabling I and II
 Graphic Communications I and II
 Industrial Maintenance Repair/Welding I and II
 Masonry I and II
 Precision Machining Technology I and II
 Radio Broadcasting and Journalism I and II

CTE Industry Credentials are available. A credential is defined as an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness skills assessment.



Career & Technical Education

Advanced Career Education (ACE) Center Programs – An Overview

Two Advanced Career Education (ACE) Centers offer one-year and two-year courses in skill-based programs to all Henrico County high school **juniors and seniors**. The mission of these programs is to prepare students for job-entry skills and/or post-secondary education. Students planning to take an ACE Center program should be in a rigorous core curriculum cluster at their home high school to prepare for **3-credit** technical courses during their junior/senior years. **All** ACE Center programs lead to licensure or certification upon successful completion.

Students from Deep Run, Freeman, Glen Allen, Godwin, Hermitage, and Tucker high schools attend the ACE Center at Hermitage unless the technical program is offered only at the ACE Center at Highland Springs. Students from Henrico, Highland Springs, and Varina High Schools attend the ACE Center at Highland Springs unless the technical program is offered only at the ACE Center at Hermitage. Admission is through an application process.

AGRICULTURE, FOOD AND NATURAL RESOURCES

Greenhouse Management (1 year, 3 credits) Grow annuals, perennials, vegetables and herbs in a garden center setting. Study horticulture therapy, techniques of floral design and wedding planning, plant propagation and transplanting *Offered at the ACE Center @ Hermitage*

Landscaping (1 year, 3 credits) Gain experience in the use of hand and power tools related to landscaping, turf care and grounds maintenance while preparing for entry-level employment and advancement in landscape design, landscape construction, and landscape maintenance *Offered at the ACE Center @ Hermitage*

ARCHITECTURE AND CONSTRUCTION

Air Conditioning/Refrigeration/Plumbing (2 years, 6 credits) Learn to install, troubleshoot, and service air conditioning, heating, plumbing, and refrigeration systems. Students may work toward EPA/CFC certification *Offered at the ACE Center @ Hermitage*

Carpentry (2 years, 6 credits) Explore careers in residential and commercial carpentry, including cost and materials estimating and remodeling, while learning comprehensive carpentry skills *Offered at the ACE Center @ Highland Springs*

CAD - Computer-Aided Drafting and 3D Animation (2 years, 6 credits) Explore careers in drafting, animation and design while learning technical skills using AutoCad software *Offered at the ACE Center @ Hermitage*

Electricity and Cabling (2 years, 6 credits) Learn basic principles of direct and alternating current with emphasis on residential wiring. Earn one year of nationally accredited electrical apprenticeship through standardized tests *Offered at the ACE Center @ Hermitage and Highland Springs*

Masonry (2 years, 6 credits) Explore careers in residential and commercial brick and masonry construction while learning how to read blueprints, mix mortar and construct walls, corners, piers and chimneys *Offered at the ACE Center @ Highland Springs*

ARTS, A/V TECHNOLOGY AND COMMUNICATIONS

Graphic Communications (2 years, 6 credits) Instruction on digital layout and design with Adobe Creative Suite as well as designing and publishing the ACE Center newsletter; production procedures, digital 4-color printing, screen printing of T-shirts and hoodies, vinyl signs and decals *Offered at the ACE Center @ Hermitage*

Radio Broadcasting and Journalism (2 years, 6 credits) Explore careers in commercial production, digital editing, news broadcasting, script writing, and radio programming while participating in live broadcasting *Offered at the ACE Center @ Highland Springs*

Web Development/Programming (2 years, 6 credits) Learn to design and construct Web pages using HTML, JavaScript, Java, Dreamweaver, Flash, and other programming languages. Learn project-management skills and become a Certified Internet Webmaster (CIW) *Offered at the ACE Center @ Hermitage*

BUSINESS MANAGEMENT AND ADMINISTRATION

Legal Systems Administration (1 year, 3 credits) Learn business skills, legal terminology, and various legal documents that are utilized in the legal field. Also, participate in mock trial simulations with real life court officials (judges, attorneys, etc.) *Offered at the ACE Center @ Hermitage*

Medical Systems Administration (1 year, 3 credits) Learn business skills, medical terminology & abbreviations, record keeping, and various insurance documents that are utilized in the medical field. Also, participate in a dual-enrollment class to receive college credit *Offered at the ACE Center @ Hermitage*

EDUCATION AND TRAINING

Early Childhood Education and Services (2 years, 6 credits) Early Childhood Education is a two-year program for students interested in careers which involve working with children. The program focuses on the study of growth and development of preschoolers and the preparation of preschool learning activities. Students receive additional employment skills through on-the-job experiences at Springer Preschool Academy. *Offered at the ACE Center @ Highland Springs*

HEALTH SCIENCE

Emergency Medical Technician (1 year, 3 credits) Gain knowledge and learn the skills to become a certified emergency medical technician. This course is an excellent introduction to any health/medical occupation or public safety career. *Offered at the ACE Center @ Hermitage*

Nurse Aide (1 year, 3 credits) This course provides clinical experience in long-term care settings and is an excellent introduction to basic nursing skills. Learn anatomy, physiology, nutrition, and geriatrics
Offered at the ACE Center @ Hermitage and Highland Springs

Pharmacy Technician (1 year, 3 credits) Learn how to assist a pharmacist in ordering, stocking, packaging, and dispensing medications for related medical careers
Offered at the ACE Center @ Highland Springs

Practical Nursing I (Seniors only, 1 year, 3 credits) Explore nursing in med-surg and long-term care. After successful completion of Practical Nursing I, II, and III (9 months post-graduation) the student is eligible to take the NCLEX-PN to become a Licensed Practical Nurse.
Offered at the ACE Center @ Hermitage and Highland Springs

Sports Medicine (1 year, 3 credits) Develop skills required by professional athletic trainers, physical therapists, nutritionists, and other health and medical personnel
Offered at the ACE Center @ Hermitage

Veterinary Assistant (2 years, 6 credits) Explore a career in the veterinary field through hands-on experiences in order to learn proper health care and maintenance of animals. Students may become certified in Veterinary Assisting
Offered at the ACE Center @ Hermitage

HOSPITALITY AND TOURISM

Culinary Arts (2 years, 6 credits) Learn the art and science of culinary preparation from a certified executive chef and gain hands-on experience in the restaurant business. This program is accredited by the American Culinary Federation.
Offered at the ACE Center @ Hermitage

Hospitality, Tourism and Catering (1 year, 3 credits) Explore careers in travel and tourism by gaining knowledge of the travel/tourism industry to include cruises, airlines, lodging, and car rental
Offered at the ACE Center @ Highland Springs

Tourism Marketing, Sales, and Catering (1 year, 3 credits) Take an in-depth look into marketing and sales in the travel and tourism field through issues related to business and resource management and the sale process of the tourism industry
Offered at the ACE Center @ Highland Springs

HUMAN SERVICES

Barbering (2 years, 6 credits) Learn technical skills and job opportunities of a licensed barber. Successful completion of this two-year program will qualify students to take the state board exam and become a licensed barber.
Offered at the ACE Center @ Hermitage

Cosmetology (2 years, 6 credits) Successful completion of this two-year course will qualify students to take the state board exam and potentially become a licensed cosmetologist, salon manager/owner or makeup specialist.
Offered at the ACE Center @ Hermitage and Highland Springs

INFORMATION TECHNOLOGY

Computer Systems Technology (2 years, 6 credits) Students learn how to install, setup, service, troubleshoot, network and maintain PCs while preparing for CompTIA's A+ and Net+ industry standard certifications. This class is dual enrollment with ECPI University and students may earn up to 6 college credits
Offered at the ACE Center @ Highland Springs

LAW, PUBLIC SAFETY, CORRECTIONS AND SECURITY

Criminal Justice (2 years, 6 credits) Dual Enrollment with ECPI University 12 college credits, instruction provided in all areas of Criminal Justice including law enforcement, corrections, legal and forensic science, as well as physical training
Offered at the ACE Center @ Hermitage and Highland Springs

MANUFACTURING

High Tech Academy (2 years, 6 credits) Prepare for a career in the high tech industries including science, technology, engineering and mathematics (STEM). Be introduced to different disciplines of engineering. Help answer the question "when are we going to use this?" by applying math and science. Get a head start in your college career; earn up to 28 college credits from VCU.
Offered at the ACE Center @ Highland Springs and offered for dual enrollment at Virginia Commonwealth University



Precision Machining Technology (2 years, 6 credits and 15 hours of college credit) Prepare for certification as a machinist apprentice or machine operator. Learn how to safely operate milling machines, lathes, drill presses and cut-off saws. Also offering Computer Numeric Control (CNC) and welding
Offered at the ACE Center @ Hermitage

TRANSPORTATION, DISTRIBUTION, AND LOGISTICS

Auto Body Repair (2 years, 6 credits) Gain hands-on experience with welding, plastic fillers, and refinishing equipment and processes
Offered at the ACE Center @ Highland Springs

Automotive Technology (2 years, 6 credits) Learn maintenance and diagnostic procedures. Take the NATEF with N3SA Certification ASE Test. BG service approved training. AYES paid internships are available for second year students with sponsoring dealerships. Students receive Commonwealth of Virginia Safety Inspection License Training.
Offered at the ACE Center @ Hermitage and Highland Springs

Diesel Technologies (2 years, 6 credits) Learn the fundamentals of diesel equipment and identify, disassemble, clean, inspect and repair various components related to heavy equipment. Participate in work experiences during the second semester if recommended
Offered at the ACE Center @ Hermitage



HIGH TECH ACADEMY
ADVANCED CAREER EDUCATION (ACE) CENTER AT HIGHLAND SPRINGS

The High Tech Academy (HTA) is a dual-credit enrollment program offered by Henrico County Public Schools (HCPS) and Virginia Commonwealth University (VCU). Located at the Advanced Career Education (ACE) Center at Highland Springs, this collaborative program prepares secondary students for future careers in high tech industries.

Students in this two-year program follow a rigorous academic curriculum which incorporates industrial applications in a high tech atmosphere. Working in teams through project based learning, the students engage in coursework in advanced mathematics and science within the framework of high tech industrial applications. HTA students can receive up to 28 dual enrollment credit hours through VCU. Applicants must be registered in a Henrico County high school. Two curriculum tracks are available based on the student’s math background (see below). A completed application, transcript, and three teacher recommendations (one science, one mathematics, and one other) are required.

Students prepare for the NOCTI Pre-engineering certification exam, taken during their second year. HTA completers who pass this exam may qualify to receive the *Governor’s Seal, VDOE Advanced Mathematics and Technology Seal, as well as the VDOE Career and Technical Education Seal* (see page 19 for all requirements).

An orientation at High Tech Academy and VCU prior to attending High Tech Academy is required.

Sample Four-Year Curriculum

	Grade 9	Grade 10	Grade 11	Grade 12
	English 9	English 10	English 11	English 12
	Social Studies	Social Studies	Virginia and United States History	Virginia and United States Government
	Health and P.E.	Health and P.E.	*World Language	*World Language
	*World Language	*World Language	Elective	Elective
Track 1	Track 1 Offered Every Year			
	Geometry	Algebra II	VCU Precalculus (4 cr. VCU)	VCU Calculus (8 cr. VCU)
	Earth Science	Biology	VCU Chemistry** (8 cr. VCU)	VCU Physics** (8 cr. VCU)
	Elective	Elective	Engineering Explorations I Honors	Engineering Studies Honors
Track 2	Track 2 Not Offered Every Year			
	Algebra	Geometry	Algebra II Honors	VCU Precalculus (4 cr. VCU)
	Earth Science	Biology	VCU Physics** (8 cr. VCU)	VCU Chemistry** (8 cr. VCU)
	Elective	Elective	Engineering Explorations I Honors	Engineering Studies Honors

*NOTE: Refer to Section I to determine which graduation requirements apply to you.

**VCU Sciences may be taken in any order.

For information, call the ACE Center at Highland Springs at 328-4075.



- SECTION IV -

Specialty Centers and Programs: Curriculum Models with Course Descriptions



Advance College Academy - Business Administration Highland Springs High School

- Students earn an advanced studies high school diploma by taking a wide range of honors and AP level classes.
- Students earn an Associate of Science degree in Business Administration from Reynolds Community College (JSRCC) during their four years in high school.
- All 61 JSRCC credits are eligible for transfer to a four-year college or university.
- College courses are taught by selected HCPS teachers, credentialed as adjunct professors with JSRCC.
- There is a minimal charge for students to enroll in the program and earn an associate degree through the program.

Advance College Academy Curriculum

Grade 9	Grade 10	Grade 11	Grade 12
English 9 Honors Biology Honors Geometry or Algebra II Honors World History II Honors World Language Health and P.E. HCPS Elective	English 10 Honors Chemistry Honors Algebra II or Math Analysis Honors AP European History World Language Economics & Personal Finance Health and P.E. HCPS Elective **College Success Skills 100 & Personal and Community Health 115*	English 111 & 112* AP Physics or AP Chemistry ¹ Math 163 & 270* (Precalculus and Applied Calculus) History 121 & 122* World Language Leadership Development & Business 100* Intro to Computer Apps 115* & Spreadsheets (Excel) 140* (Microsoft IT Academy) HCPS Elective	English 242 & 243* Biology 101 & 102* Accounting 211 & 212* (Accounting I & II) Economics 201 & 202* Political Science 211 & 212* HCPS Elective HCPS Elective

- NOTES:**
- ¹ In order to take AP Chemistry students must take Earth Science in 8th grade.
 - * All courses identified with asterisks are JSRCC courses that meet the requirements of an advanced studies high school diploma.
 - ** College Success Skills 100 & Personal and Community Health 115 must be taken during the summer prior to Grade 11.
 - Students must earn a B or higher in Algebra I and maintain a 3.0 GPA through 8th grade. It is recommended that students complete World History I prior to enrolling in the Academy.
 - Curriculum is subject to change.
 - All students, beginning with the graduating class of 2015, must successfully complete the Economics and Personal Finance course or an acceptable alternative as an elective or online.



Advance College Academy - Business Administration

Highland Springs High School

Course Descriptions

JSRCC College Composition 111 & 112

Course # D1196

36 weeks; dual credit; (1 HS cr. & 6 College cr.); Grade 11

Required for academy students

- ✓ SOL English end-of-course Reading test
- Use nonfiction texts to develop rhetorical strategies, compose argumentative writing and utilize cross-curricular learning communities
- Prepare for the Advanced Placement Language and Composition exam

JSRCC American & English Literature 242 & 243

Course # D1195

36 weeks; dual credit; (1 HS cr. & 6 College cr.); Grade 12

Required for academy students

- Focus on the historical and philosophical influences on literature
- Write pieces that require analysis, synthesis, and evaluation involving cross-curricular learning communities
- Prepare for the Advanced Placement Literature and Composition exam

JSRCC General Biology 101 & 102

Course # D4370

36 weeks; dual credit; (1 HS cr. & 8 College cr.); Grade 12

Required for academy students

- Major topics include pathways and transformation of energy and matter; information flow, exchange and storage; evolution; ecology; botany; the origin of animals and the biology of animal systems
- Read and analyze peer reviewed scientific literature and relate to major course topics
- Prepare for the Advanced Placement Biology exam

JSRCC General Biology Lab

Course # D4371

36 weeks; (.5 cr.); required for academy students; Grade 12

- Further develop laboratory and reporting skills
- Collect data, incorporate current scientific literature, create journal formatted reports
- Conduct research using cross-curricular learning communities

JSRCC Pre-calculus with Trigonometry

JSRCC MTH 163

Course # D3162

18 weeks; dual credit; (.5 HS cr. & 3 College cr.); required for academy students; Grade 11 or 12

- Placement through JSRCC math placement test required
- Explore polynomials, logarithms, exponential and rational functions, matrices
- Explore, graph, and apply trigonometric functions through learning communities

JSRCC Applied Calculus

JSRCC MTH 270

Course # D3177

18 weeks; dual credit (.5 HS cr. & 3 College cr.) Applied calculus or statistics required for academy students; Grade 11

- Placement through JSRCC math placement test required
- Understanding of limits as they apply to continuity, product, quotient, and chain rules to differentiate polynomial, rational, and transcendental functions, word problems
- Utilized cross-curricular learning communities to explore practical applications

JSRCC United States History 121 & 122

Course # D2319

36 weeks dual credit (1 HS cr. & 6 College cr.); required for academy students; Grade 11

✓ SOL Virginia and United States History end-of-course test.

- Read historical material critically, weigh evidence, and use learning communities to arrive at conclusions
- Prepare for the Advanced Placement US History exam

JSRCC Political Science 211 & 212

Course # D2445

36 weeks; dual credit (1 HS cr. & 6 College cr.); required for academy students; Grade 12

- Obtain a college-level perspective on politics and government in the United States
- Explore institutions, groups, beliefs, and ideas of American political reality through learning communities
- Prepare for the Advanced Placement US Government exam

JSRCC Introduction to Computer Applications and Concepts

ITE 115

Course # D6618

18 weeks; (.5 HS cr. & 3 college cr.) Required by academy students for associate degree; Grade 12

- Computer literacy demonstrated through use of software suite which includes word processing, spreadsheet, database, and presentation software
- Computer concepts and internet skills

JSRCC Spreadsheet Software (Excel)

ITE 140

Course # D6619

18 weeks; (.5 HS cr. & 3 college cr.); Required by academy students for associate degree; Grade 12

- Demonstrate proficiency in designing an electronic spreadsheet incorporating numeric data, labels, formulas, functions, and formatting
- Create and edit charts and graphics
- Work with Excel tables, Pivot Tables, and Pivot Charts

JSRCC College Success Skills

SDV 100

5 weeks; (1 college cr.); Required by academy students for associate degree; Grade 10

- Effective study habits, career and academic planning, exploration of other college resources available to students
- Course is taken at JSRCC Parham Road campus during summer as a rising junior

JSRCC Introduction to Personal and Community Health

HLT 115

5 weeks; (1 college cr.); Required by academy students for associate degree; Grade 10

- Definition and limitation of biomedical health as well as primary, secondary, and tertiary prevention
- Health care delivery systems and health status in the United States
- Course is taken at JSRCC Parham Road campus during summer as a rising junior



Advance College Academy - Business Administration
Highland Springs High School
Course Descriptions (cont.)

JSRCC Business 100

Course #D6136

18 weeks; dual credit; (.5 HS cr. & 3 College cr.); required for academy students; Grade 11

- Describe how business institutions operate in our modern political, social and economic environments
- Identify the various business functions and their essential nature to business and society
- Acquire some basis for choosing his/her area of concentration

Leadership Development (Honors)

Course #9096

18 weeks; (.5 HS cr.); Required for academy students; Grade 11

- Identify the characteristics, roles, and responsibilities of a leader
- Develop leadership skills
- Practice Problem Solving

**JSRCC Principles of Accounting I
ACC 211**

Course #D6320G

18 weeks; dual credit; (.5 HS cr. & 3 College cr.); required for academy students; Grade 12

- Introduction to accounting concepts, and the recording process, including journals, ledgers, and trial balance preparation
- Adjusting the accounts to comply with accrual accounting concept, preparing closing entries to insure comparability between the books and the financial statements, and setting up books for next accounting cycle
- Accounting for a merchandising business, including sales and purchase transactions, inventory valuation methods, and cost of goods sold under both perpetual and periodic inventory systems

JSRCC Principles of Accounting II

ACC 212

Course #D6320H

18 weeks; dual credit; (.5 HS cr. & 3 College cr.); required for academy students; Grade 12

- Organization and Operation of Corporations Including Stock Issues, Classes of Stock, Legal and Market Valuations
- Discussion of Cash and Stock Dividends and Computation of Earnings per Share
- Discussion of Bonds Including Discounts, Premiums, Amortization Methods and Procedures, Sinking Funds and Bond Retirement

**JSRCC Principles of Economics I-
Macroeconomics**

ECO 201

Course #D2807

18 weeks; dual credit; (.5 HS cr. & 3 College cr.); required for academy students; Grade 12

- Introduces macroeconomics including the study of Keynesian, classical, monetarist principles and theories
- Includes the study of national economic growth, inflation, recession, unemployment, financial markets, money and banking, the role of government spending and taxation, along with international trade and investments

**JSRCC Principles of Economics II-
Microeconomics**

ECO 202

Course #D2806

18 weeks; dual credit; (.5 HS cr. & 3 College cr.); required for academy students; Grade 12

- Introduces the basic concepts of microeconomics
- Explores the free market concepts with coverage of economic models and graphs, scarcity and choices, supply and demand, elasticities, marginal benefits and costs, profits, and production and distribution



Advance College Academy - Social Sciences

J. R. Tucker High School

- Students earn an advanced studies high school diploma by taking a wide range of honors and AP level classes.
- Students earn an Associate of Science degree in Social Sciences from Reynolds Community College (JSRCC) during their four years in high school.
- All 62 JSRCC credits are eligible for transfer to a four-year college or university.
- College courses are taught by selected HCPS teachers, credentialed as adjunct professors with JSRCC.
- There is a minimal charge for students to enroll in the program and earn an associate degree through the program.

Advance College Academy Curriculum

Grade 9	Grade 10	Grade 11	Grade 12
English 9 Honors Biology Honors Geometry or Algebra II Honors World History II Honors World Language Health and P.E. HCPS Elective	English 10 Honors Chemistry Honors Algebra II or Math Analysis Honors AP European History World Language Economics & Personal Finance Health and P.E. HCPS Elective **College Success Skills 100 & Personal and Community Health 115*	English 111 & 112* AP Physics or AP Chemistry ¹ Math 166 and 270 or 240* (Precalculus & Applied Calculus or Statistics) History 121 & 122* Spanish or French I & II* (Beginner or Intermediate Spanish or Beginner French) JSRCC Semester Elective* Intro to Computer Apps 115* HCPS Elective	English 242 & 244* Biology 101 & 102* AP Calculus or AP Statistics Political Science 211 & 212* Psychology 200 & 230* (Psychology 1 & 2) World Language HCPS Elective

- NOTES:**
- ¹ In order to take AP Chemistry students must take Earth Science in 8th grade.
 - * All courses identified with asterisks are JSRCC courses that meet the requirements of an advanced studies high school diploma.
 - ** College Success Skills 100 & Personal and Community Health 115 must be taken during the summer prior to Grade 11.
 - Students must earn a B or higher in Algebra I and maintain a 3.0 GPA through 8th grade. It is recommended that students complete World History I prior to enrolling in the Academy.
 - Curriculum is subject to change.
 - All students, beginning with the graduating class of 2015, must successfully complete the Economics and Personal Finance course or an acceptable alternative as an elective or online.



Advance College Academy - Social Sciences

Tucker High School

Course Descriptions

JSRCC College Composition 111 & 112

Course #D1196

36 weeks; dual credit; (1 HS cr. & 6 College cr.); Grade 11

Required for academy students

- ✓ SOL English end-of-course Reading test
- Use nonfiction texts to develop rhetorical strategies, compose argumentative writing and utilize cross-curricular learning communities
- Prepare for the Advanced Placement Language and Composition exam

JSRCC American & English Literature 242 & 244

Course #D1195

32 weeks; dual credit; (1 HS cr. & 6 College cr.); required for academy students; Grade 12

- Focus on the historical and philosophical influences on literature
- Write pieces that require analysis, synthesis, and evaluation involving cross-curricular learning communities
- Prepare for the Advanced Placement Literature and Composition exam

JSRCC General Biology 101 & 102

Course #D4370

32 weeks; dual credit; (1 HS cr. & 8 College cr.); required for academy students; Grade 12

- Major topics include pathways and transformation of energy and matter; information flow, exchange and storage; evolution; ecology; botany; the origin of animals and the biology of animal systems
- Read and analyze peer reviewed scientific literature and relate to major course topics
- Prepare for the Advanced Placement Biology exam

JSRCC General Biology Lab

Course #D4371

32 weeks; (.5 cr.); required for academy students; Grade 12

- Further develop laboratory and reporting skills
- Collect data, incorporate current scientific literature, create journal formatted reports
- Conduct research using cross-curricular learning communities

JSRCC Pre-calculus with Trigonometry JSRCC MTH 166

Course #D3164

18 weeks; dual credit; (.5 HS cr. & 5 College cr.); required for academy students; Grade 11

- JSRCC math placement test required
- Explore polynomials, logarithms, exponential, inverse and rational functions
- Explore, graph, and apply trigonometric functions and identities, determine the features, sketch the graphs, and write the equations for conic sections

JSRCC Applied Calculus

Course #D3177

18 weeks; dual credit; (.5 HS cr. & 3 College cr.); Applied calculus or statistics required for academy students; Grade 11

- Placement through JSRCC math placement test required
- Understanding of limits as they apply to continuity, product, quotient, and chain rules to differentiate polynomial, rational, and transcendental functions, word problems
- Utilized cross-curricular learning communities to explore practical applications

JSRCC Statistics

Course #D3191

18 weeks; dual credit; (.5 HS cr. & 3 College cr.); Applied calc. or statistics required for academy students; Grade 11

- Placement through JSRCC math placement test required
- Use numerical methods to analyze data and understand basic concepts of probability as related to statistics
- Utilize learning communities to explore practical applications of confidence intervals and hypothesis testing for means and proportions

JSRCC United States History 121 & 122

Course #D2319

36 weeks; dual credit; (1 HS cr. & 6 College cr.); required for academy students; Grade 11

- ✓ SOL Virginia and United States History end-of-course test
- Read historical material critically, weigh evidence, and use learning communities to arrive at conclusions
- Prepare for the Advanced Placement US History exam

JSRCC Political Science 211 & 212

Course #D2445

32 weeks; dual credit; (1 HS cr. & 6 College cr.); required for academy students; Grade 12

- Obtain a college-level perspective on politics and government in the United States
- Explore institutions, groups, beliefs, and ideas of American political reality through learning communities
- Prepare for the Advanced Placement US Government exam

JSRCC Introduction to Psychology

Course #D2900

18 weeks; dual credit; (.5 HS cr. & 3 College cr.); required for academy students; Grade 12

- Study individual and group behavior, the effect of internal and external stimuli, and the interaction of individuals
- Increase critical thinking and improve communication through demonstrations, experiments, movies, and videotapes
- Utilize cross-curricular learning communities



**Advance College Academy - Social Sciences
Tucker High School
Course Descriptions (cont.)**

**JSRCC Developmental Psychology
JSRCC PSY 230**

Course #D2901

18 weeks; dual credit; (.5 HS cr. & 3 College cr.); required for academy students; Grade 12

- Major topics include history and theories of life-span development; development in prenatal, infancy, toddlerhood, early and middle childhood, development in adolescence, early, middle, and late adulthood, death and dying
- Comprehend the key concepts of research and statistics, nature versus nurture as well as biological, cognitive, personality, and social development
- Utilize cross-curricular learning communities

**JSRCC Beginner Spanish or French
JSRCC SPA or FRE 101-102**

Course #D5520 or D5120

36 weeks; dual credit; (1 HS cr. & 8 College cr.); Beginner or intermediate Spanish or French required by academy students; Grade 11

- Major topics include basic dialogues, essential vocabulary, current events culture, and grammar
- Demonstrate listening comprehension and speaking skills at the beginner's level; novice to mid-novice level of the ACTFL
- Utilize cross-curricular learning communities

**JSRCC Intermediate Spanish
JSRCC SPA**

Course #D5550

36 weeks; dual credit; (1 HS cr. & 8 College cr.); Beginner or intermediate Spanish or French required by academy students; Grade 11

- Major topics include verb systems, vocabulary building through reading, and a historical understanding of economic, historical, geographical, and cultural background
- Read with fluency from the textbook and outside readings; participate in discussions using learning communities
- Function at low to mid-intermediate level of the ACTFL rating scale

**JSRCC Introduction to Computer Applications and Concepts
ITE 115**

Course #D6618

16 weeks; (3 college cr.); Required by academy students for associate degree; Grade 10

- Computer literacy demonstrated through use of software suite which includes word processing, spreadsheet, database, and presentation software
- Computer concepts and internet skills
- Credit by Able test-out recommended

**JSRCC College Success Skills
SDV 100**

4 weeks; (1 college cr.); Required by academy students for associate degree; Grade 10

- JSRCC English placement test required
- Effective study habits, career and academic planning, exploration of other college resources available to students
- Course is taken at JSRCC Parham Road campus during summer as a rising junior

**JSRCC Introduction to Personal and Community Health
HLT 115**

4 weeks; (1 college cr.); Required by academy students for associate degree; Grade 10

- JSRCC English placement test required
- Definition and limitation of biomedical health as well as primary, secondary, and tertiary prevention, health care delivery systems and health status in the United States
- Course is taken at JSRCC Parham Road campus during summer as a rising junior

**JSRCC Reynolds Elective
Varies**

10-16 weeks; (3 college cr.); Required by academy students for associate degree; Grade 10-11

- Must be an elective from Humanities/fine arts
- Must complete ENG 112 to take 200 level English electives
- Course is taken on-line during summer as a rising junior or rising senior



Center for the Arts Henrico High School

- Faculty augmented with resident and visiting artists
- Four levels of musical theatre - vocal production, dance, acting techniques, theatre history, microphone techniques, music theory and history, audition preparation, performance
- Four levels of dance - ballet and modern dance techniques, aesthetics, nutrition, anatomy, choreography, dance history, kinesiology, audition preparation, performance
- Four levels of theatre - acting techniques, creative expression, technical theatre, aesthetics, production, audition preparation, script and character analysis, character development, performance
- Four levels of visual arts - art and design principles, history, aesthetics, proficiency in a variety of artistic media and technique, exhibition of student art work

Sample Four-Year Curriculum

Grade 9	Grade 10	Grade 11	Grade 12
Center Module I Acting Studio/Production Design I (2 periods) or Ballet/Modern Dance I (2 periods) or Visual Art I (2 periods) or Musical Theatre I (2 periods)	Center Module II Acting Studio/Production Design II (2 periods) or Ballet/Modern Dance II (2 periods) or Visual Art II (2 periods) or Musical Theatre II (2 periods)	Center Module III Acting Studio/Production Design III (2 periods) or Ballet/Modern Dance III (2 periods) or Visual Art III (2 periods) or Musical Theatre III (2 periods)	Center Module IV Acting Studio/Production Design IV (2 periods) or Ballet/Modern Dance IV (2 periods) or Visual Art IV (2 periods) or Musical Theatre IV (2 periods)
Arts Infused English 9 Mathematics Arts Infused Science Arts Infused Social Studies *World Language +Health and P.E. 9 or Elective	Arts Infused English 10 Mathematics Arts Infused Science *Arts Infused Social Studies or Elective *World Language +Health and P.E. 10 Economics and Personal Finance	English 11 - Arts Infused/AP Language and Composition Mathematics Science Virginia and United States History *World Language Elective	English 12 - Arts Infused/AP Literature and Composition *Mathematics or Elective *Science or Elective Virginia and United States Government *World Language Elective

- NOTES:**
- * Refer to Section I to determine which graduation requirements apply to you.
 - + Students participating in the Center for the Arts Dance, Theatre and Musical Theatre programs will receive credit for the Physical Education component of the Health and Physical Education 9 and 10 Courses. The students will be required to complete the Health portion of the Health and Physical Education courses through online Health modules. This will be required to receive the Health and Physical Education credits for graduation. It is recommended that students in the Visual Arts program complete Health and Physical Education credits in summer school or evening school.
 - All students, beginning with the graduating class of 2015, must successfully complete the Economics and Personal Finance course or an acceptable alternative as an elective or online.



Center for the Arts - Henrico High School

Course Descriptions (cont.)

Course Descriptions

Acting Studio/Production Design I Honors

Course #1390

36 weeks (2 crs.); required for Center students; Grades 9-12

- Study speech, vocal projection, movement, improvisation, dramatic literature, and creative writing
- Examine technical aspects of theatrical production and apply skills in performances
- Explore selected topics on the history of theatre, and examine relationships between theatre and other art forms

Acting Studio/Production Design II Honors

Course #1395

36 weeks; (2 crs.); required for Center students; Grades 9-12

- Develop acting techniques and theories with emphasis on script analysis and character development
- Undertake an in-depth exploration of Classical theatrical literature
- Application of skills is demonstrated through performances

Acting Studio/Production Design III Honors

Course #1396

36 weeks; (2 crs.); required for Center students; Grades 10-12

- Focus on audition preparation and professional practice, including the application of skills in performances
- Study of theatrical theories, techniques of direction, and selected history topics
- Expanded investigation in creative writing, including personal writing skills and critiques

Acting Studio/Production Design IV Honors

Course #1397

36 weeks; (2 crs.); required for Center students; Grades 11-12; may be repeated for credit

- Emphasis on theatrical literature, character development and production practices
- Apply skills in performance, direction, and production, culminating in a class-produced performance of an established script

Ballet/Modern Dance I Honors

Course #9303

36 weeks; (2 crs.); required for Center students; Grades 9-12

- Develop a positive attitude toward dance and explore the relationships of dance to the other arts
- Develop basic movement and techniques in ballet, modern dance, and other dance forms to develop the body
- Learn dance vocabulary, study selected topics in history, and share skills attainment through performances

Ballet/Modern Dance II Honors

Course #9311

36 weeks; (2 crs.); required for Center students; Grades 9-12

- Develop an appreciation of dance contributions and histories from different ethnic groups and historical periods
- Continue to develop traditional and new dance techniques and their vocabularies, as well as improvisation
- Emphasis on more complex choreography with the application of skills demonstrated in performance

Ballet/Modern Dance III Honors

Course #9312

36 weeks; (2 crs.); required for Center students; Grades 10-12

- Learn movement composition and interpretation and create dance sequences to prepare for auditions and performances
- Develop a movement vocabulary that will aid in self-discovery and individual choreography
- Develop an appreciation for the aesthetics of dance and the arts

Ballet/Modern Dance IV Honors

Course #9313

36 weeks; (2 crs.); required for Center students; Grades 11-12; may be repeated for credit

- Increase student proficiency in all areas of dance and movement
- Explore dance opportunities in college and universities, and pursue venues for professional development
- Explore creative expression through choreography that culminates in an original dance project

Visual Art I Honors

Course #9155

36 weeks; (2 crs.); required for Center students; Grades 9-12

- Understand the elements and principles of design and study selected topics in art history
- Learn essential skills and techniques for creative expression through drawing, painting, sculpture, and printmaking
- Explore the relationships between the visual artist, their products and the impact they have on society

Visual Art II Honors

Course #9156

36 weeks; (2 crs.); required for Center students; Grades 9-12

Participating in Visual Art I is not a prerequisite for taking Visual Art II.

- Improve technical applications and techniques for creative expression in a variety of art forms
- Study selected topics in art history, color theory, architecture, and investigate elements and principles of design
- Explore artistic concepts through analysis, structure and production



Center for the Arts - Henrico High School Course Descriptions (cont.)

Visual Art III Honors

Course #9157

36 weeks; (2 crs.); required for Center students; Grades 10-12

Participating in Visual Art II is not a prerequisite for taking Visual Art III.

- Continue to study topics in art history with thematic units that emphasize creative problem solving
- Demonstrate a thorough knowledge of the elements and principles of design and various artistic techniques
- Participate in discussions and demonstrations with experts to foster professional development

Visual Art IV Honors

Course #9158

36 weeks; (2 crs.); required for Center students; Grades 11-12; may be repeated for credit

Participating in Visual Art III is not a prerequisite for taking Visual Art IV.

- Investigate, create, and present a directed production of an independent, cumulative, and unified body of work
- Explore contemporary art issues and research a variety of topics

Musical Theatre I Honors

Course #9296

36 weeks; (2 crs.); required for Center students; Grades 9-12

- Begin development of essential skills in vocal production, music reading, theory and ear training, and dance techniques
- Introduction to the history of the American musical theatre and the study of basic stage movement and character building
- Participate in building group skills utilizing appropriate vocal literature with the application of skills demonstrated through performance

Musical Theatre II Honors

Course #9297

36 weeks; (2 crs.); required for Center students; Grades 9-12

- Focus on acting techniques, speech and dialects, character building and script analysis
- Refine individual skills in vocal production, musicianship and dance techniques, with an increased emphasis in ensemble work
- Explore improvisation and acting exercises, scene work from musicals, and performance opportunities

Musical Theatre III Honors

Course #9301

36 weeks; (2 crs.); required for Center students; Grades 10-12

- Focus on audition and monologue preparation, scene study, vocal production, dance skills, and acting methodologies
- Continued study of selected theatre developments, dramatic theory and criticism
- Explore educational opportunities in college and universities, and pursue venues for professional development

Musical Theatre IV Honors

Course #9302

36 weeks; (2 crs.); required for Center students; Grades 11-12; may be repeated for credit

- Continue development of essential skills in vocal production, music reading, theory and ear training; and dance techniques
- Apply skills in performance, direction, and production culminating in a class-produced performance
- Emphasize the effect of American musical theatre on American culture



Center for Communications and Media Relations

Varina High School

- Comprehensive study and refinement of writing and speaking skills necessary for effective communication
- Applications of communications principles in areas such as television, multimedia, public speaking, photography, graphic design, journalism, advertising, web design, and public relations
- Ethical and technical aspects of communications
- Field trips, guest speakers, field experiences, and shadowing opportunities in partnership with the business community
- Production of student news shows, commercials, newspapers, speeches, multimedia presentations, websites, advertising campaigns, public service announcements, a senior project, and a senior portfolio

Sample Four-Year Curriculum

Grade 9	Grade 10	Grade 11	Grade 12
Center Module I English 9 Communications & Technology Connections	Center Module II English 10 Communications Writing & Production I (2 periods)	Center Module III AP English 11 Communications Writing & Production II (2 periods)	Center Module IV AP English 12 Advanced Communica- tions: Writing, Production, and Directed Research (2 periods)
Mathematics Science Health & P.E. + World History & Geography II *World Language	Mathematics Science Health & P.E. *World Language Economics and Personal Finance	*Mathematics *Science Virginia and United States History *World Language	Virginia and United States Government *Mathematics or Elective *Science or Elective *World Language

- NOTES:**
- * Refer to Section I to determine which graduation requirements apply to you.
 - + It is highly recommended that students complete World History & Geography I before enrolling in this Center.
 - All students, beginning with the graduating class of 2015, must successfully complete the Economics and Personal Finance course or an acceptable alternative as an elective or online.

Course Descriptions

Communications and Technology Connections Honors

Course #1610

36 weeks; (1 cr.); required; Grade 9

- Write and deliver formal and informal speeches and presentations
- Develop skills in news writing, reporting, script writing, and editing
- Explore print and broadcast journalism, desktop publishing, graphic design, photography, multimedia, and video production

Communications Writing and Production I Honors

Course #1620

36 weeks (2 crs.); required; Grade 10

- Deliver persuasive speeches, oral interpretations, and presentations with visual aids
- Further develop skills in news and script writing for print and broadcast journalism, desktop publishing, graphic design, multimedia, photography, video production, and editing
- Study the newspaper and book industries; explore communication law and ethics

Communications Writing and Production II Honors

Course #1621

36 weeks (2 crs.); required; Grade 11

- Study the television, recording, and radio industries; produce and broadcast a range of audio and video content including radio shows, news programs, music videos, and narrative television
- Refine public speaking skills and implement them in oral interpretation, persuasive speeches, and on-air presentations
- Apply skills in news and script writing, video editing, desktop publishing, web design, graphic design, and on-camera performance

Advanced Communications

Course #1622

36 weeks (2 crs.); required; Grade 12

- Design, produce, and present a variety of communications including video news packages, public service announcements, short films, graphic design projects, editorial and column writing, advertising campaigns, a senior project, and a senior portfolio
- Study the magazine, film, advertising, and public relations industries
- Participate in shadowing experiences with professionals in the communications field

Center for Education and Human Development

Glen Allen High School

- Exploration of human development and psychology as it relates to education and models best practices for teaching and other leadership roles
- An advanced studies program in social studies and English
- Comprehensive curriculum that explores the complexities of the learning process and utilizes the latest technology to develop educators and other leaders in the 21st Century
- Emphasis on research-based instructional practices and 21st Century skills necessary for success in the global society

Sample Four-Year Curriculum

Grade 9	Grade 10	Grade 11	Grade 12
Center Module I English 9 +World History and Geography II Child Growth and Development	Center Module II English 10 Technology and Communication in the 21st Century AP Psychology	Center Module III AP English 11 AP US History Foundations of Teaching and Learning (1/2) Instructional Design (1/2)	Center Module IV AP English 12 AP Government Internship/Organizational Development and Leadership Education Dual Enrollment
+Mathematics Science Health and P.E. *World Language	Mathematics Science Health and P.E. *World Language Economics and Personal Finance (online)	*Mathematics or Elective *Science or Elective *World Language or Elective Elective	*Mathematics or Elective *Science or Elective *World Language or Elective

- NOTES:**
- * Refer to Section I to determine which graduation requirements apply to you.
 - + It is highly recommended that the students complete World History & Geography I before enrolling in this Center. This course is required for the Advanced Studies Diploma and the Center Diploma Seal but is NOT included in the Center's curriculum.
 - All students, beginning with the graduating class of 2015, must successfully complete the Economics and Personal Finance course or an acceptable alternative as an elective or online.

Course Descriptions

All Center courses will be taught in the interdisciplinary model. Teachers will demonstrate and model methods of best practice, differentiation of instruction, and student centered lessons. The curriculum will encourage students to become active and engaged participants in the lessons presented.

Child Growth and Development Honors

Course #2992

36 weeks (1 cr.); required for Center Students

Level I: Grade 9

- Examine the different stages of development from childhood to young adulthood from a psychological standpoint
- Develop skills in perception and psychological research to enhance understanding of mental processes and behavior

Technology and Communication in the 21st Century Honors

Course #9826

36 weeks (1 cr.); required for Center Students

Level II: Grade 10

- Explore the fundamentals of advancing technology and how it relates to classroom instruction
- Develop skills in the creation and implementation of lessons using appropriate technology (Investigate the evolution of technology over time as it relates to best practice in education)
- Gather, analyze, and interpret data (Develop and implement student created curriculum)

Foundations of Teaching and Learning Honors

Course #2993

18 weeks (.5 cr.); required for Center students

Level III: Grade 11

- Examine the historical and philosophical foundation for educational practice
- Observe and analyze teaching methods and the use of modern educational theory
- Develop skills in lesson plan creation modeling best practices and differentiation of instruction



Center for Education and Human Development - Glen Allen High School

Course Descriptions (cont.)

Instructional Design Honors

Course #2722

18 weeks (.5 cr.); required for Center students
Level III: Grade 11

- Systematically analyze the learning needs and goals of organizations
- Develop solutions to organizational problems that improve employee performance and organizational effectiveness
- Use data and current standards to drive instruction and lesson creation in education

Organizational Development and Leadership Honors

Course #2997

18 weeks (.5 cr.); required for Center students
Level IV: Grade 12

- Examine and evaluate effective instruction and uses of best practices in the 21st Century model
- Analyze and observe the traits of effective leadership

Internship

Course #2999

18 weeks (.5 cr.); required for Center students
Level IV: Grade 12

- Complete 60 hour internship with a local agency or community organization
- Seek opportunities to practice instruction and model leadership qualities during internship experience

Education Dual Enrollment

Course #2501

36 weeks (1 cr.); required for Center students
Level IV: Grade 12 Dual Enrollment

- Explore differentiated instructional strategies for learning and performance focusing on the strengths and needs of diverse learners
- Determine alternative methods of instruction for diverse learners
- Explain how specific teaching strategies can best serve individuals of varying levels of development, ability, and achievement



Center for Engineering Highland Springs High School

- Rigorous pre-engineering program founded in advanced studies of mathematics and science applicable to both a college engineering curriculum and many technical careers
- Field studies, mentoring, and internships in partnership with business
- Use of computer-aided drafting (CAD) systems in engineering, architecture, and design
- Modern technologies, including telecommunications, networking, and computer software applications
- Exploratory and summer programs

Sample Four-Year Curriculum

Grade 9	Grade 10	Grade 11	Grade 12
Center Module I Foundations of Engineering and Design *Engineering Mathematics I Engineering Science I Honors	Center Module II Engineering I Design I Engineering Mathematics II *Engineering Science II	Center Module III AP Chemistry Engineering II Analysis/Trig. AP Calculus AB Practicum in Engineering I (optional) Aerospace Technology I (optional)	Center Module IV Engineering Design and Methods (cluster of four dual enrollment courses) Practicum in Engineering I or II (optional) AP Calculus BC AP Physics Aerospace Technology (optional)
English 9 Honors World History and Geography I Honors Health and P.E. World Language	English 10 Honors World History and Geography II Honors Health and P.E. World Language Optional Semester Electives - (2 if P.E. taken in summer) Economics and Personal Finance	AP English 11 AP Virginia and United States History World Language Electives	AP English 12 AP Virginia and United States Government World Language

NOTE: * Students must meet Center criteria through successful completion of Algebra I prior to enrolling in this Center

- All students, beginning with the graduating class of 2015, must successfully complete the Economics and Personal Finance course or an acceptable alternative as an elective or online.

Course Descriptions

Foundations of Engineering and Design Honors

Course #8449
36 weeks (1 cr.); required for Center students; Grade 9

- Explore history and fundamental concepts of the engineering profession
- Use a variety of technologies for research and problem solving
- Use AutoCAD in conjunction with engineering projects and problem solving

Engineering I Honors

Course #8493
36 weeks (1 cr.); required for Center students; Grade 10

- Explore energy and power as applied to engineering and transportation
- Apply mathematical and scientific principles to substantiate engineering problem solving skills
- Develop and present research projects that explore energy and power applications



Engineering II Honors

Course #8494
36 weeks (1 cr.); required for Center students; Grade 11 (18 weeks of Engineering Economics and 18 weeks of Statics)

- Learn and apply concepts of statics
- Learn and apply principles of engineering economics
- Explore material applicability to problems through cost analysis, performance, and feasibility

Design I Honors

Course #8451
36 weeks (1 cr.); required for Center students; Grade 10

- Develop skills in material selection, prototyping, and documentation through hands-on projects
- Apply advanced research methods and design technologies to solve design problems
- Analyze existing products and apply this information to designing prototype projects

Engineering Mathematics I Honors

Course #3343
36 weeks (1 cr.); required for Center students; Grade 9

- ✓ SOL Geometry end-of-course test
- Introduce geometric concepts stressed in engineering and/or design professions
- Apply 2D and 3D geometrical principles to engineering related problems
- Model and analyze structures using computers and other technological tools

Engineering Mathematics II Honors

Course #3333
36 weeks (1 cr.); required for Center students; Grade 10

- ✓ SOL Algebra II end-of-course test
- Introduce and stress the Algebra II concepts used in engineering-related problems
- Apply algebraic modeling principles to engineering-related principles
- Investigate discrete topics related to engineering and/or design

Center for Engineering - Highland Springs High School

Course Descriptions (cont.)

Engineering Science I

Course #4311

36 weeks (1 cr.); required for Center students
Grade 9

- ✓ SOL Biology end-of-course test
- Explore the connections between biological science and engineering fields such as Bioengineering, Biomedical Engineering, and Environmental Engineering
- Compare and contrast the scientific method and the engineering design method
- Apply these methods through a long-term research-based project

Engineering Science II

Course # 4411

36 weeks (1 cr.); required for Center students
Grade 10

- ✓ SOL Chemistry end-of-course test
- Explore the relationship between Chemistry and Chemical Engineering and other engineering fields
- Compare and contrast the scientific method and the engineering design method
- Apply these methods through a long-term research-based project

Math Analysis/Trigonometry Honors

Course #3162

36 weeks (1 cr.); required for Center students;
Grade 11

(See Course #3162 in Section V for specific course content)

AP Calculus AB

Course #3177

36 weeks (1 cr.); required for Center students;
Grade 11

(See Course #3177 in Section V for specific course content)

AP Calculus BC

Course #3179

36 weeks (1 cr.); required for Center students;
Grade 12

(See Course #3179 in Section V for specific course content)

AP Chemistry

Course #4470

36 weeks (1 cr.); required for Center students;
Grade 11

(See Course #4470 in Section V for specific course content)

AP Physics

Course #4570

36 weeks (1 cr.); required for Center students;
Grade 12

(See Course #4570 in Section V for specific course content)

ENGINEERING DESIGN AND METHODS HONORS (cluster of four dual enrollment courses listed below)

Courses #8488, 8489, 8490, and 8491

36 weeks (2 crs.); required for Center students; Grade 12

These dual enrollment courses are taught by professors from Reynolds Community College:

JSRCC EGR110 Engineering Graphics

Course #8488 (3 semester hours college credit; .5 high school credit, is awarded weighted credit)

- Presents theories and principles of orthographic projection
- Analysis and graphic presentation of fundamental geometric elements
- Includes instruction in computer-aided drafting

JSRCC EGR124 Introduction to Engineering and Engineering Methods

Course #8489 (3 semester hours college credit; .5 high school credit, is awarded weighted credit)

- Introduce the engineering profession, professionalism, and ethics
- Explore problem presentation and engineering calculations
- Apply MATLAB, ALICE and other computer applications to engineering problems

JSRCC EGR 140 Engineering Mechanics - Statics

Course #8490 (3 college credits; .5 high school credit; weighted credit)

- Introduces mechanics of vector forces and space, scalar mass and time, including S.I. and U.S. customary units
- Teaches equilibrium, free-body diagrams, moments, couples, distributed forces, centroids, moments of inertia analysis of two-force and multi-force members, and friction and internal forces

JSRCC EGR 206 Engineering Economy

Course #8491 (3 college credits, .5 high school credit, weighted credit)

- Presents economic analysis of engineering alternatives
- Studies economic concepts as applied in the field of engineering
- Examines economic optimization in design and operation, depreciation and comparison of alternatives

Practicum in Engineering I Honors

Course #8453

36 weeks (1 cr.); elective;
Grade 11, 12

- Complete an independent study at the Engineering Center
- Strengthen engineering skills in research, design, prototyping, production and time-management
- Incorporate appropriate software and/or technologies into independent project

Practicum in Engineering II Honors

Course #8456

36 weeks (1 cr.); elective;
Grade 12

- Complete an independent study at the Engineering Center
- Strengthen engineering skills in research, design, prototyping, production and time-management
- Explore STEM and emerging technologies in the research process

Aerospace Technology I Honors

Course #8487

36 weeks (1 cr.); optional for Center students;
Grade 11 or Grade 12

- Introduction to flight, space travel, and supporting technologies
- Hands-on approach to study concepts including the history of aviation, aerodynamics, aircraft components, flight conditions, airport and flight operations, space, rocketry, and the aviation and space industries
- Develop and present research projects that explore aerospace technology



Center for the Humanities

Hermitage High School

- Comprehensive and challenging academic program specializing in literature, history, philosophy, and the arts
- Exploration of themes across courses which show the human ties within and among cultures from the past to the present
- Interdisciplinary instruction of related core academics with seminars for reflective dialogue relating the humanities to current events and issues
- Emphasis on the role of the humanities and on the value of a liberal arts background in a technological society
- All English, Social Studies and Humanities courses are honors credit

Sample Four-Year Curriculum

Grade 9	Grade 10	Grade 11	Grade 12
Center Module I English 9 World History & Geography II Foundations of Civilization (a Humanities Honors Seminar)	Center Module II English 10 AP Human Geography Development of World Cultures (a Humanities Honors Seminar)	Center Module III AP English 11 AP Virginia and United States History Age of Discovery and the New World (a Humanities Honors Seminar)	Center Module IV AP English 12 AP Virginia and United States Government Modernity and Global Cultures (a Humanities Honors Seminar)
*Mathematics *Science Health and P.E. *World Language	*Mathematics *Science Health and P.E. *World Language Economics and Personal Finance	*Mathematics *Science *World Language	*Mathematics or Elective *Science or Elective *World Language or Elective

NOTE: *Refer to Section I to determine which graduation requirements apply to you.

- **All students, beginning with the graduating class of 2015, must successfully complete the Economics and Personal Finance course or an acceptable alternative as an elective or online.**



Center for the Humanities - Hermitage High School

Course Descriptions (cont.)

Course Descriptions

All Center courses emphasize the reading and analysis of primary sources, writing across disciplines, and provide an interdisciplinary approach to the study of the Humanities. All English, Social Studies and Humanities courses are connected through the themes outlined below for each grade level; therefore, the English and Social Studies courses may contain additional or varied readings and assignments while still allowing students to meet all the State and County requirements.

Foundations of Civilization Honors

Course #2715

36 weeks (1 cr.); required for Center students, Level I; Grade 9

- Explore the human condition through literary, historical, cultural, and artistic expression with an emphasis on the foundations in the humanities
- Study: pre-history, African folk and oral traditions, Ancient Egypt, Classical Greece and Rome, Greek philosophy, world religions, theater, sculpture, and architecture
- Develop skills in expository, analytical and creative writing, research, creativity, logic and reasoning, use of contextual evidence, presentations with the appropriate use of technology, communication in a team environment, the Socratic method, and service learning
- Examine the themes: *Myth and Global Tradition; Pursuit of the Ideal; The Faces of Love; and Heroes and Heroines*

Development of World Cultures Honors

Course #2716

36 weeks (1 cr.); required for Center students, Level II; Grade 10

- Explore the human condition through literary, historical, cultural, and artistic expression with an emphasis on the advancements in the humanities
- Study: Renaissance art and thought, classical and traditional music, European architecture, East Asian art and philosophy, and the Western “Great Works”
- Develop additional skills in critical thinking, inter-disciplinary learning, oral expression, analytical reading, research and writing, the Socratic method, and service learning
- Examine the themes: *Influence and Innovation; Power and Authority; Mixed Message; and Challenge and Growth*

Age of Discovery and the New World Honors

Course #2719

36 weeks (1 cr.); required for Center students, Level III; Grade 11

- Explore the human condition through literary, historical, and artistic expression with an emphasis on the humanities of America
- Study: Native American cultures, development of American art and music, progression of American philosophy, reflections of the American Dream, Jazz and Blues, and American theater
- Develop additional skills in descriptive writing, persuasive argument, inter-disciplinary thinking, self-directed learning, the Socratic method, and service learning
- Examine the themes: *Identity: A Clash of Cultures and Ideas; Character: Defining America; Convergence: A New Way of Life; and Self-Discovery and Responsibility*

Modernity and Global Cultures Honors

Course #2720

36 weeks (1 cr.); required for Center students, Level IV; Grade 12

- Explore the human condition through literary, historical, cultural and artistic expression with an emphasis on the contemporary humanities
- Study: modernism and post-modernism, genocide, social justice, gender, environmental and conceptual art, contemporary architecture, world film, globalization of cultures
- Master skills in research, the Socratic method, presentation with the use of technology, use of contextual evidence, formulation of argument and reasoning
- Develop additional skills in written and oral communication, aesthetic analysis and appreciation, cross-cultural awareness, self-guided learning, and community service leadership
- Examine the themes: *Freedom: Human Rights and Human Experience; Truth: Perception and Culture; Earth: World and Environment; and Future: Past, Present and Possibility*



Center for Information Technology

Deep Run High School

- Emphasis on the fundamentals for Information Technology
- Flexible/adaptable curriculum in-tune with changes in the technology world
- Rigorous program preparing students for a higher education and/or career in Information Technology and related fields
- Concentration in chosen IT field
- Realistic learning experiences within the IT community
- Industry Certifications

CIT Course Sequence

Grade 9	Grade 10	Grade 11	Grade 12***
Center Module I AP Computer Science Principles +Algebra II Honors or Geometry Honors English 9 Honors	Center Module II IT Project Management Honors Algebra II Honors or Math Analysis Honors Intro to Programming Honors English 10 Honors	Center Module III Web Design & Development Honors AP Computer Science A AP Calculus or Math Analysis Honors **Senior Internship	Center Module IV Mathematical Structures with Discrete Topics Honors Sr. Capstone Project
World History & Geography I Science Health and P.E. *World Language or *Elective	World History & Geography II Science Health and P.E. *World Language or *Elective Economics and Personal Finance	English 11 or AP English 11 Honors Virginia and United States History Science (or Elective) *World Language or *Elective	English 12 or AP English 12 Honors Virginia and United States Government Science (or Elective) *World Language or *Elective

- NOTES:**
- * Refer to Section I to determine which graduation requirements apply to you.
 - ** Senior Internship is completed during the summer between 11th and 12th grade (Summer tuition applies)
 - + Students must meet Center criteria through successful completion of Algebra I prior to enrolling in this Center.
 - All students, beginning with the graduating class of 2015, must successfully complete the Economics and Personal Finance course or an acceptable alternative as an elective or online.

Course Descriptions

AP Computer Science Principles

Course #3186

36 weeks; (1 cr.); Required; Grade 9

- Explore seven Big Ideas of computer science: Creativity, Abstraction, Data, Algorithms, Programming, Internet and Impact
- Develop problem-solving methodologies, computational and critical thinking skills.
- Create of knowledge, design and create computational artifacts

PSC Geometry Honors

Course #3143

36 weeks (1 cr.); required; Grade 9

- ✓ SOL Geometry end-of-course test
- Apply concepts and processes to information technology topics taught within the Center
- Refer to content in course #3143 in Course Descriptions, Section V

IT Project Management Honors

Course #6671

18 weeks (.5 cr.); required; Grade 10

- Explore the fundamentals of project management as it relates to system life cycles
- Utilize real world project management techniques and methodologies in completing projects
- Material covered includes the Project Management Body of Knowledge and Agile Project Management



Center for Information Technology - Deep Run High School

Course Descriptions (cont.)

English 9 Honors

Course #1130

36 weeks (1 cr.); required; Grade 9

- Analyze the meaning and effect of a passage related to grammar and syntax in both fiction and non-fiction works, giving special emphasis on information technology and business writing
- Write increasingly complex essays as a result of studying professional writers. Develop writing skills necessary for various technological media sources
- Understand use of rhetorical and literary devices used to create meaning. Read, comprehend, critique, and analyze a variety of literature, professional and technical writing

English 10 Honors

Course #1140

36 weeks (1 cr.); required; Grade 10

- Follow an interdisciplinary approach to integrate grammar, usage, writing, literature, and oral communication in assessing, evaluating, organizing, and presenting information as a part of the research process
- Develop persuasive, expository, and analytical writing skills, as well as fostering the writing skills necessary for various technological media sources
- Read, comprehend, critique, and analyze a variety of literature from various cultures and eras, with a focus on professional and technical writing within information technology and computer science

Algebra II Honors

Course #3135

36 weeks (1 cr.); required; Grades 9 or 10

- ✓ SOL Algebra II end-of-course test
- Apply advanced algebraic concepts and processes to information technology topics taught within the Center
- Refer to content in course #3135 in Course Descriptions, Section V

Math Analysis/Trigonometry Honors

Course #3162

36 weeks (1 cr.); required; Grade 11

- Explore polynomials, logarithms, and exponential functions, matrices, theory of equations, curves, and conics
- Investigate limits, derivatives, vectors, permutations, and probability
- Explore, graph, and apply trigonometric and circular functions

Web Design and Development Honors

Course #6672

36 weeks (1 cr.); required; Grade 11

- Develop skills to solve the communication needs for a local non-profit agency
- Create an effective, original website for a local non-profit agency
- Develop skills in visual and functional design, evaluation, project and task management

Senior Internship Honors

Course #6674

36 weeks (1 cr.); required; Grade 12

- Engage in real-world IT undertakings
- Apply software design, program development, database management and system architecture skills
- Utilize project management and communication skills through professional interactions

AP Computer Science A

Course #3185

36 weeks (1 cr.); elective

- Understand object-oriented (OO) design (OOD) and OO programming (OOP)
- Learn to code Java in a well-structured fashion and in good style giving attention to clarity of both code and documentation
- Learn to use Java library packages, classes, and interfaces and the Java Collections framework within the scope of the APCS-A Java subset

CIT Senior Capstone Project Honors

Course #6673

36 weeks (1 cr.); elective; Grade 12

- Explore one of the following areas of IT concentration; game design, network security, database design and development, or IT management
- Develop and apply area specific skills to IT projects within the Center and the IT community
- Research, develop and complete an independent project that solves a specific problem within the area of concentration

Mathematical Structures with Discrete Topics Honors

Course #3158

36 weeks (1 cr.); elective

- College level survey of discrete (non-continuous) algorithms and problem solving
- Study of mathematics with connections to computer science
- Explore logic, combinatorics, number theory, recursion, computational complexity, and graph theory

Intro to Programming Honors

Course #6640

18 weeks (.5 cr.); required; Grades 10-11

- Write code to create menus, sub procedures, sub functions, various controls & modules
- Enter, run, and compile a program; use variables and constants; program math operations and computer graphics
- Learn object oriented programming; work with arrays, templates and vectors



International Baccalaureate Programs

Middle Years Program - Fairfield, Moody & Tuckahoe Middle Schools

The International Baccalaureate Middle Years Program (IBMYP), grades 6-10, at Fairfield, George H. Moody, and Tuckahoe Middle Schools, as well as Henrico and J. R. Tucker High Schools, offers an advanced curriculum for motivated students who have demonstrated an ability to achieve academically. Students are challenged to think globally and become self-directed learners, taking IBMYP courses in all eight subject areas each year of the program. The subject areas, connected through interdisciplinary instruction are Mathematics, the Arts, Language and Literature (English), Language Acquisition (world language), Individuals and Society, Design, Physical and Health Education, and the Sciences. The Design requirements may be integrated through other MYP core subjects in Grades 6-8. The program is designed around Global Contexts, Key Concepts, and Approaches to Learning.

International Baccalaureate Middle Years Program Course of Study

Grade 6, Level One	Grade 7, Level Two	Grade 8, Level Three
IBMYP Language & Literature (English) IBMYP Language Acquisition (French, Spanish) IBMYP Physical and Health Education *IBMYP Mathematics IBMYP Sciences IBMYP Individuals & Societies, US History, Part I, Level One IBMYP Arts: Visual and Performing **Electives	IBMYP Language & Literature (English) IBMYP Language Acquisition (French, Spanish) IBMYP Physical and Health Education *IBMYP Mathematics IBMYP Sciences IBMYP Individuals & Societies, US History, Part II, Level Two IBMYP Arts: Visual and Performing **Electives	IBMYP Language & Literature (English) IBMYP Language Acquisition (French II, Spanish II) IBMYP Physical and Health Education *IBMYP Mathematics IBMYP Sciences IBMYP Individuals & Societies, World History and Geography I, Level Three IBMYP Arts: Visual and Performing **Electives

- NOTES:**
- * Entry level in mathematics is based on ability and preparation at the elementary level. In the IBMYP, students must complete Algebra I successfully before entering the ninth grade.
 - ** Electives may include beginning band, intermediate band, advanced band, chorus, art, creative writing workshop, journalism, drama, independent living, word processing, keyboarding, Design, or gifted enrichment.

Course Descriptions

Courses in the IBMYP incorporate the Virginia Standards of Learning, the Essentials of the Curriculum, and the standards set by the International Baccalaureate Organization.

IBMYP English, Level One
 Course #IB1109
 36 weeks; required; Grade 6

- Introduce the aims, objectives, and assessments of IBMYP arts (performing)
- Develop a writer's vocabulary focusing on the writing process and writing structure
- Introduce basic research and documentation skills including MLA style

(See Course #1109 in Section V for additional course content)

IBMYP English, Level Two
 Course #IB1110
 36 weeks; required; Grade 7

- Introduce second year IBMYP arts (performing) concepts for Level Two
- Emphasize the analysis and interpretation of various genres of literature
- Strengthen paragraph writing and introduce essay writing

(See Course #1110 in Section V for additional course content)

IBMYP English, Level Three
 Course #IB1120
 36 weeks; required; Grade 8

- ✓ Grade 8 three-part SOL test
- Focus on accelerated content
- Prepare students to enter Level Four (Language Acquisition) of the IBMYP
- Follow the standards in the IBMYP arts

(See Course #1120 in Section V for additional course content)



International Baccalaureate Programs
Middle Years Program - Fairfield, Moody & Tuckahoe Middle Schools
Course Descriptions (cont.)

IBMYP French I, Part A

Course #IB5113

36 weeks; required; Grade 6

This is a possible world language (Language Acquisition) course required of all students entering the IBMYP. Delivered with an interdisciplinary approach, the focus on global awareness connects French to other disciplines.

(See Course #5113 in Section V for additional course content)

IBMYP French I, Part B

Course #IB5115

36 weeks (1 cr.); required; Grade 7

This is the second half of the world language (Language Acquisition) requirement for IBMYP. Placement is based on successful completion of IBMYP French I, Part I.

(See Course #5115 in Section V for specific course content)

IBMYP French II

Course #IB5120

36 weeks (1 cr.); required; Grade 8

This is the second level of required world language (Language Acquisition) for all IBMYP students. The accelerated content is a preparation for those students entering the IBMYP at the high school level.

(See Course #5120 in Section V for specific course content)

IBMYP Spanish I, Part A

Course #IB5513

36 weeks; required; Grade 6

This is a possible world language (Language Acquisition) course required of all students entering the IBMYP. Delivered with an interdisciplinary approach, the focus on global awareness connects Spanish to other disciplines.

(See Course #5513 in Section V for additional course content)

IBMYP Spanish I, Part B

Course #IB5515

36 weeks (1 cr.); required; Grade 7

This is the second half of the world language (Language Acquisition) requirement for IBMYP. Placement is based on successful completion of IBMYP Spanish I, Part I. (See Course #5515 in Section V for specific course content.)

IBMYP Spanish II

Course #IB5520

36 weeks (1 cr.); required; Grade 8

This is the second level of required world language (Language Acquisition) for all IBMYP students. The accelerated content is a preparation for those students entering the IBMYP at the high school level.

(See Course #5520 in Section V for specific course content)

IBMYP Physical and Health Education, Level One

Course #IB7110

36 weeks; required; Grade 6

- Learn how communicable diseases, physical and emotional changes and nutrition affect the body
- Demonstrate safety in physical activity settings
- Apply physical fitness concepts to achieve wellness-related fitness

IBMYP Physical and Health Education, Level Two

Course #IB7120

36 weeks; required; Grade 7

- Learn about stimulants, depressants, narcotics, hallucinogens, and drug abuse
- Practice conflict resolution and violence prevention skills
- Apply principles of personal fitness for proficiency in the Virginia wellness fitness standards

IBMYP Physical and Health Education, Level Three

Course #IB7200

36 weeks; required; Grade 8

- Identify behaviors that promote positive relationships
- Practice conflict resolution and violence prevention skills
- Participate in physical fitness screenings to achieve improvements in Virginia wellness-related fitness

IBMYP Mathematics, Course One, Level One

Course #IB3110

36 weeks; required; Grade 6

✓ Grade 6 SOL test

This course is one option for Level One students in the IBMYP. Students entering the IBMYP at grade 6 will be placed appropriately based on their prior mathematical background, preparation, and assessment.

(See Course #3110 in Section V for specific course content)

IBMYP Mathematics, Course Two, Level One or Two

Course #IB3111

36 weeks; required; Grade 6 or 7

✓ Grade 7 SOL test

This course is one option for either Level One or Level Two students in the IBMYP. Students entering the IBMYP at grade 6 or 7 will be placed appropriately based on their prior mathematical background, preparation, and assessment. (See Course #3111 in Section V for additional course content)



International Baccalaureate Programs
Middle Years Program - Fairfield, Moody & Tuckahoe Middle Schools
Course Descriptions (cont.)

IBMYP Accelerated Math 6/7

Course #IB3115

36 weeks; required; Grade 6

✓ Grade 7 SOL test

This course is one option for Level One students in the IBMYP. Students entering the IBMYP at grade 6 will be placed appropriately based on their prior mathematical background, preparation and assessment. (See course #3115 in Section V for additional course content)

IBMYP Algebra I, Level One, Two or Three

Course #IB3130

36 weeks (1 cr.); required; Grade 6, 7 or 8

✓ SOL Algebra I end-of-course test

Students entering the IBMYP at this level will be placed appropriately based on prior mathematical background, preparation, and assessment.

(See Course #3130 in Section V for specific course content)

IBMYP Geometry, Level Two or Three

Course #IB3143

36 weeks (1 cr.); required; Grade 7 or 8

✓ SOL Geometry end-of-course test

This is the recommended sequential course for those students who have completed Algebra I. Students who enter IBMYP at this level will be placed appropriately based on their prior mathematical background, preparation, and assessment.

(See Course #3143 in Section V for specific course content)

IBMYP Life Science, Level One

Course #IB4115

36 weeks; required; Grade 6

- Emphasize the life sciences
- Introduce the aims, objectives, and assessments of the IBMYP technology course, Level One
- Combine the study of the IBMYP design cycle and the scientific method

(See Course #4115V in Section V for additional course content)

IBMYP Physical Science, Level Two

Course #IB4125

36 weeks; required; Grade 7

✓ SOL Cumulative Grade 8 SOL Science test

- Introduce the physical sciences
- Incorporate the IBMYP technology course, Level Two

(See Course #4125V in Section V for additional course content.)

IBMYP Earth Science, Level Three

Course #IB4210

36 weeks; required; Grade 8

✓ SOL Earth Science end-of-course test

- Emphasize the earth sciences
- Incorporate the IBMYP technology course, Level Three

(See Course #4210 in Section V for additional course content)

IBMYP US History Part I, Level One

Course #IB2354

36 weeks; required; Grade 6

✓ SOL United States History I test

This course is for students who enter the IBMYP in the sixth grade.

(See Course #2354V in Section V for specific course content. Additionally, this course incorporates civics into the curriculum.)

IBMYP US History Part II, Level Two

Course #IB2355

36 weeks; Grade 7

✓ SOL United States History II test

This course is for students in the second year of the IBMYP.

(See Course #2355V in Section V for specific course content. Additionally, this course incorporates civics into the curriculum.)

IBMYP World History and Geography I, Level Three

Course #IB2215

36 weeks (1 cr.); required; Grade 8

✓ SOL World History I end-of-course test

Students will be challenged to think like historians and social scientists by analyzing primary and secondary sources and by using other tools of historical analysis including maps, pictures, stories, diagrams, charts, chronology, inquiry/research, and technology.

(See Course #2215 in Section V for additional course content)



International Baccalaureate Programs

IB Program - Henrico & Tucker High Schools

Students in grades 9 and 10 complete Levels Four and Five of the International Baccalaureate Middle Years Program (IBMYP). In order for students to qualify for the Henrico County IB Certificate, students in grades 9 and 10 are required to complete the following:

- + assessments in six IB subject groups
- + Earn at least a 3 out of 7 on the personal project which is moderated by the IBO
- + community and service requirements
- + participation in the MYP for both grades 9 and 10

Grade 9, Level Four	Grade 10, Level Five
IBMYP Language and Literature (English) IBMYP Language Acquisition (French II or III or Spanish II or III) IBMYP Physical and Health Education IBMYP Geometry, Algebra II or AP Statistics IBMYP Biology IBMYP World History & Geography II *IBMYP Arts Elective	IBMYP Language and Literature (English) IBMYP Language Acquisition (French III or IV or Spanish III or IV, or Chinese IV) IBMYP Physical and Health Education** IBMYP Algebra II or IBMYP Extended Math IBMYP Chemistry IBMYP VA/US/Comparative Governments *IBMYP Arts Elective Economics and Personal Finance

NOTES: * The six subject groups include mathematics; sciences; Language and Literature; Language Acquisition; Individuals and Societies; and the Arts. The IBMYP Art choices are visual arts and performing arts. Grade 10 elective choice should match Grade 9 elective choice for concurrency of learning as required by the IBO. Course availability may vary by school.

**A student may take a non-weighted on-line or site based summer P.E. course to create an opportunity for an additional elective.

- All students, beginning with the graduating class of 2015, must successfully complete the Economics and Personal Finance course or an acceptable alternative as an elective or online.

During the eleventh and twelfth grades, the student completes the IB diploma curriculum. The high standards implicit in the IB examinations assume advanced levels of achievement. The subjects that comprise the core of the IB curriculum are arranged in six groups. All students must complete their study in all six areas. Group 6, however, may include not only arts electives, but also subjects in other areas such as psychology or science. Requirements for the IB diploma candidate in Grades 11-12 are listed below:

- Internally graded and externally moderated assessments in each subject
- Examinations in six IB subjects: 3 at the higher level (HL) and 3 at the standard level (SL)
 SL = Standard Level (at least one year of study); HL = Higher Level (2 years of study)
- Theory of Knowledge course
- Extended essay on a student-selected topic
- CAS Program (Creativity, Action, Service)

IB Subject Areas - Course Offerings by Groups			
Grade 11		Grade 12	
1. Language & Literature IBDP English HL 2. Language Acquisition IBDP Chinese V or IBMYP/DP French (IV or V) or IBMYP/DP Spanish (IV or V) 3. Individuals & Societies IBDP History of the Americas HL 4. Experimental Sciences IBDP Biology SL or IBDP Chemistry SL	5. Mathematics IBMYP Extended Mathematics or IBMYP Standard Mathematics or IBDP Mathematical Studies SL or IBDP Mathematics SL 6. The Arts/Elective IBDP Theatre Arts or IBDP Psychology SL IBDP Art/Design HL IBDP Theory of Knowledge I (requirement for IB Diploma candidates)	1. Language & Literature IBDP English HL 2. Language Acquisition IBDP Chinese VI SL or HL or IBDP French V SL or VI SL or HL or IBDP Spanish V SL or VI SL or HL 3. Individuals & Societies IBDP World History Topics SL or HL 4. Experimental Sciences IBDP Biology SL or HL or IBDP Chemistry SL or HL	5. Mathematics IBDP Mathematical Studies SL or IBDP Mathematics SL 6. The Arts/Elective IBDP Art/Design HL IBDP Theatre Arts SL or HL IBDP Physics SL IBDP Psychology SL or HL IBDP Theory of Knowledge II (requirement for IB Diploma candidates) AP Electives are available.

Students earning the IB diploma will have completed the requirements for graduation provided they have passed the end-of-course SOL tests to earn verified credits as required by the State of Virginia. (See "Graduation Requirements" in Section I.) The student who does not satisfy the requirements of the Diploma Program is awarded a certificate for the examination(s) completed.

Adhering to the full IB curriculum 9-12 satisfies the Virginia DOE Advanced Studies Diploma requirements.

Leaving the IB program prior to completion will require a student to meet the original state requirements for graduation.

International Baccalaureate Programs

IB Program - Henrico & Tucker High Schools

Course Descriptions

Courses in the IBMYP and IB Diploma Program (IBDP) incorporate the Virginia Standards of Learning, the Essentials of the Curriculum, and the Standards set by the International Baccalaureate Organization.

IBMYP English, Level Four Honors

Course #IB1130

36 weeks (1 cr.); required (Language & Literature); Grade 9

- Follow an interdisciplinary approach to integrate grammar, usage, writing, literature, and research
- Develop the Personal Project required for the HCPS MYP certificate

IBMYP English, Level Five Honors

Course #IB1140

36 weeks (1 cr.); required (Language & Literature); Grade 10

- ✓ SOL English end-of-course EOC Writing test (2 parts, 1 verified credit)
- Continue the development of the academic skills necessary for IB courses
- Complete the personal project and assessments required for the HCPS MYP certificate

IBDP English HL Honors

Course #IB1150

36 weeks (1 cr.); required (Language & Literature); Grade 11

- ✓ SOL English end-of-course EOC Reading test (1 verified credit)

This course is required for all IB diploma candidates.

- Concentrate on in-depth analytical study of major works of literature selected from an IB list of authors, genres, and time periods
- Undertake extensive reading and writing assignments
- Complete papers and oral presentation for external examiners

IBDP English HL Honors

Course #IB1160

36 weeks (1 cr.); required (Language & Literature); Grade 12

This course, in partnership with Course #IB1150, is required for all IB diploma candidates.

- Continue in-depth analytical study of major works of literature selected from an IB list of authors, genres, and time periods
- Complete papers and oral commentary for external examiners
- Prepare for the IB Literature (HL) written examinations

IBDP Theory of Knowledge I Honors

Course #IB1197

36 weeks (1 cr.); required; Grade 11

- Compare and contrast knowledge systems to understand how they affect the nature of knowledge, language, perception, and logic
- Understand the range of human knowledge by examining the belief systems inherent in various academic subjects
- Complete oral presentation for internal assessment

IBDP Theory of Knowledge II Honors

Course #IB1198

36 weeks (1 cr.); required; Grade 12

- Compare and contrast knowledge systems to understand how they affect the nature of knowledge, language, perception, and logic
- Understand the range of human knowledge by examining the belief systems inherent in various academic subjects
- Complete essay for external grading

IBMYP French II Honors

Course #IB5122

36 weeks (1 cr.); Grade 9

This is the second level of required world language (Language Acquisition) for students entering Grade 9 IBMYP at the high school level.

IBMYP French III Honors

Course #IB5132

36 weeks (1 cr.); Grade 9 or 10

This course represents the third level of required world language (Language Acquisition) study for students prior to entering the IB Diploma Program. All tenth grade IBMYP students in this course will prepare for the HCPS MYP certificate assessments.

IBMYP French IV Honors

Course #IB5142

36 weeks (1 cr.); Grade 10 or 11

Levels IV and V of world language (Language Acquisition) study are required for IB Diploma candidates. All Grade 10 IBMYP students in this course will prepare for HCPS MYP certificate assessments.

IBDP French V SL Honors

Course #IB5152

36 weeks (1 cr.); Grade 11 or 12

This course prepares students to complete the IB French examination (SL or HL) at the end of Grade 12. Grade 11 students will continue their world language studies in Grade 12 and sit for the examination at the end of Grade 12.

IBDP French VI SL or HL Honors

Course #IB5162

36 weeks (1 cr.); Grade 12

This rigorous level of French is designed for Grade 12 IB diploma students. Students sit for the standard or higher level IB examinations.

IBMYP Spanish II Honors

Course #IB5522

36 weeks (1 cr.); Grade 9

This is the second level of required world language (Language Acquisition) for students entering Grade 9 IBMYP at the high school level.



International Baccalaureate Programs

IB Program - Henrico & Tucker High Schools

Course Descriptions (cont.)

IBMYP Spanish III Honors

Course #IB5532

36 weeks (1 cr.); Grade 9 or 10

This course represents the third level of required world language (Language Acquisition) study for students prior to entering the IB Diploma Program. All Grade 10 IBMYP students in this course will prepare for the HCPS MYP certificate assessments.

IBMYP Spanish IV Honors

Course #IB5542

36 weeks (1 cr.); Grade 10 or 11

Levels IV and V of world language (Language Acquisition) study are required for IB Diploma candidates. All Grade 10 IBMYP students in this course will prepare for HCPS MYP certificate assessments.

IBDP Spanish V SL Honors

Course #IB5552

36 weeks (1 cr.); Grade 11 or 12

This course prepares students to complete the IB Spanish examination (SL) at the end of Grade 12. Grade 11 students will continue their world language studies in Grade 12 and sit for the IB Spanish examination at the higher level in their senior year.

IBDP Spanish VI SL or HL Honors

Course #IB5562

36 weeks (1 cr.); Grade 12

This rigorous level of Spanish is designed for Grade 12 IB diploma students. Students sit for the standard or higher level IB examinations.

IBMYP Chinese IV Honors

Course #IB5842

36 weeks; (1 cr.); Grade 10

This is the fourth level of required world language (Language Acquisition) for all IBMYP students.

The accelerated content is a preparation for those students entering the IBDP at the high school level.

All Grade 10 IBMYP students in this course will prepare for the IBMYP grade 10 assessments.

IBDP Chinese V Honors

Course #IB5852

36 weeks; required; (1 cr.); Grade 11

This course prepares Grade 11 students to continue their rigorous world language studies in Grade 12 and sit for IB Chinese examination at the higher level in their senior year.

IBDP Chinese VI Honors

Course #IB5862

36 weeks; (1 cr.); Grade 12

This rigorous level of Chinese is designed for Grade 12 IB diploma students. Students sit for the standard or higher level IB examinations.

IBMYP Physical and Health Education, Level Four Honors

Course #IB7300

36 weeks (1 cr.); required; Grade 9

In addition to following the county curriculum, there is an emphasis on nutrition and sports performance; developing, implementing, and evaluating a physical fitness plan; and designing aesthetic movement routines to prepare for the HCPS MYP certificate assessments.

IBMYP Physical and Health Education, Level Five Honors

Course #IB7400

36 weeks (1 cr.); required; Grade 10

In addition to following the county curriculum, there is an emphasis on nutrition and sports performance; developing, implementing, and evaluating a physical fitness plan; and designing aesthetic movement routines to prepare for the HCPS MYP certificate assessments.

IBMYP Geometry, Level Four Honors

Course #IB3143

36 weeks (1 cr.); required; Grade 9

✓ SOL Geometry end-of-course test

This is the recommended sequential course for those students entering the IBMYP having completed Algebra I.

IBMYP Algebra II, Level Four or Five Honors

Course #IB3135

36 weeks (1 cr.); required; Grade 9 or 10

✓ SOL Algebra II end-of-course test

This is the recommended sequence for those students in the IBMYP who have completed geometry. All Grade 10 students will complete the HCPS MYP certificate assessments.

IBMYP Extended Mathematics Honors

Course #IB3199

36 weeks (1 cr.); required; Grade 10 or 11

This course is for Grade 10 IBMYP students who have completed Algebra II or Grade 11 IB Diploma students who have completed Algebra II. All Grade 10 students will complete the HCPS MYP certificate assessments.

- Incorporate IBMYP Extended Mathematics concepts in advanced algebra, trigonometry, statistics, and statistics, and probability
- Enhance students' mathematical problem-solving skills
- Enhance students' ability to communicate and reason using mathematical language and conventions

IBDP Mathematical Studies SL Honors

Course #IB3198

36 weeks (1 cr.); Grade 11 or 12

(Prerequisite: IBMYP Extended Mathematics) This course prepares students to complete the IB Mathematical Studies examination.

Course content focuses on the application of mathematics in the world outside the classroom. A required component of the course is a project involving original research and data collection.

Core topics include:

- Number Systems and Algebraic Expressions
- Sets and Logic
- Geometry and Trigonometry
- Statistics and Probability
- Functions
- Financial Math
- Further Statistics and Probability
- Matrices and Graph Theory
- Differential Calculus



International Baccalaureate Programs

IB Program - Henrico & Tucker High Schools

Course Descriptions (cont.)

IBDP Mathematics SL Honors

Course #IB3197

36 weeks (1 cr.); Grade 11 or 12

(Prerequisite: IBMYP Extended Mathematics)

This course prepares students to take the IB Mathematics examination. Course content focuses on the development of mathematical concepts and theories that enable students to make connections to mathematics in the world outside the classroom. A project demonstrating achievement in all core topics is a required component of the course.

Core topics include:

- Number Systems and Algebraic Expressions
- Functions and Equations
- Circular Functions and Trigonometry
- Vector Geometry (2-dimensional)
- Statistics and Probability
- Calculus
- Statistical Methods
- Further Calculus
- Further Geometry

IBMYP Biology, Level Four Honors

Course #IB4310

36 weeks (1 cr.); required; Grade 9

✓ SOL Biology end-of-course test

This course is an introduction to the biological sciences and is a prerequisite for Biology SL for students in the IB Diploma Program.

- Synthesize and relate biological information from different areas of biology
- Students complete assessments for the HCPS MYP certificate

IBDP Biology SL Honors

Course #IB4380

36 weeks (1 cr.); Grade 11

(Prerequisite: IBMYP Biology or teacher recommendation)

This course is required for the IB students who select biology from Group 4.

- Synthesize and relate biological information from different areas of biology
- Prepare students for the IB Biology SL examination
- Students may take this course as their IB elective or in grade 12 as an elective which does not apply to the diploma

IBDP Biology HL Honors

Course #IB4390

36 weeks (1 cr.); Grade 12

- Continue to synthesize and relate biological information from different areas of biology
- Complete the required study of two options
- Prepare for the IB Biology HL examination

IBMYP Chemistry, Level Five Honors

Course #IB4410

36 weeks (1 cr.); required; Grade 10

✓ SOL Chemistry end-of-course test

This course is a prerequisite for IB Chemistry SL in the IB Diploma Program.

- Develop an understanding of chemistry
- Examine mathematical applications of chemical properties
- Students complete assessments for the HCPS MYP certificate

IBDP Chemistry SL Honors

Course #IB4480

36 weeks (1 cr.); Grade 11

(Prerequisite: IBMYP Chemistry and IBMYP Algebra II or teacher recommendation)

This course is required for IB students who select chemistry from Group 4.

- Continue qualitative and quantitative analysis as applied to an independent project
- Prepare for the IB Chemistry SL examination
- Students may take this course as their IB elective or in grade 12 as an elective that does not apply to the diploma

IBDP Chemistry HL Honors

Course #IB4490

36 weeks (1 cr.); Grade 12

- Continue qualitative and quantitative analysis of an independent project
- Complete the required study of two options listed above with the duration of each to be 22 hours
- Prepare for the IB Chemistry HL examination

IBMYP World History & Geography II, Level Four Honors

Course #IB2216

36 weeks (1 cr.); required; Grade 9

✓ SOL World History II end-of-course test

This course is designed for students who will enter IB History in the eleventh and twelfth grades and fulfills one World History/World Geography requirement for graduation. It analyzes political, economic, and social change.

IBMYP VA/US/Comparative Governments, Level Five Honors

Course #IB2445

36 weeks (1 cr.); required; Grade 10

This course is designed for students who will enter IBDP History in the eleventh and twelfth grades and partially fulfills the U.S. Government requirement for graduation.

Course #IB2361 completes the requirement.

Students complete assessments for HCPS MYP certificate.

IBDP History of the Americas HL Honors

Course #IB2360

36 weeks (1 cr.); required; Grade 11

✓ SOL Virginia and United States History end-of-course test

This course, required of all IB Diploma candidates, is a substitute for the Virginia and United States History requirement for graduation, and partially prepares the student for the IB examination.

IBDP World History Topics SL or HL Honors

Course #IB2361

36 weeks (1 cr.); required; Grade 12

(Prerequisite: IB History of the Americas HL)

This course, in partnership with Course #IB2445, fulfills the U.S. Government requirement for graduation. Also, this course and course #IB2360 prepare the student for the IB higher level examination.

- Focus on world history and politics across the ages
- Continue the study of the Americas focusing on Latin America
- Continue preparation for the IB higher-level examination



International Baccalaureate Programs
IB Program - Henrico & Tucker High Schools
Course Descriptions (cont.)

IBDP Psychology SL Honors

Course #IB2903

36 weeks (1 cr.); elective; Grade 11 (or 12)

- Explore research methods, ethics and quantitative research methods
- Complete an experimental study
- Prepare for the IB Psychology SL examination

IBDP Psychology SL or HL Honors

Course #IB2904

36 weeks (1 cr.); elective; Grade 12

This course is the second year of the two-year IB Psychology Course.

The higher level course requires that 100 hours be spent on perspectives, 60 hours on options, 50 hours on research methodology, and 30 hours on experimental study.

- Complete the study of biological, cognitive, learning, and humanistic perspectives that are compulsory
- Complete experimental study
- Prepare for the IB Psychology SL or HL exam

IBMYP Visual Arts I, Level Four Honors

Course #IB9194

36 weeks (1 cr.); elective; Grade 9

This course is designed to fulfill the arts requirement of the IBMYP at Level Four.

IBMYP Visual Arts II, Level Five Honors

Course #IB9195

36 weeks (1 cr.); elective; Grade 10

This course is designed to fulfill the arts requirement of the IBMYP at Level Five. It prepares students for HCPS MYP certificate assessment in Grade 10.

IBDP Art/Design HL Honors

Course #IB9125

36 weeks (1 cr.); elective; Grade 11

This course, in partnership with #IB9126, comprises a Group 6 elective offering for IB diploma candidates. Art/Design engages the student on a personal journey, emphasizing in-depth study and requiring individual research. Over the two-year period, the course will engage students in a cultural awareness of art history, art interpretations, global perspectives, and critical thinking. Students will prepare to sit for the IB Art Design higher level examination.

IBDP Art/Design HL Honors

Course #IB9126

36 weeks (1 cr.); elective; Grade 12

This is the second year of the Group 6 offering described in Course #IB9125.

IBMYP Dramatic Arts I, Level Four Honors

Course #IB1432

36 weeks (1 cr.); elective; Grade 9

This course is an elective offering that fulfills the fine arts requirement of the IBMYP at Level Four.

IBMYP Dramatic Arts II, Level Five Honors

Course #IB1433

36 weeks (1 cr.); elective; Grade 10

This course is designed to fulfill the arts requirement of the IBMYP at Level Five and prepares students for HCPS MYP certificate assessments in Grade 10.

IBDP Theatre Arts SL or HL Honors

Course #IB1450

36 weeks (1 cr.); elective; Grade 11

This course prepares students to complete the Group 6 Arts elective component of the IB Diploma Program.

- Introduce ensemble work, performance techniques, characterization, and the principles of theatre production
- Compare and contrast play texts from different theatrical traditions and cultures
- Prepare for the IB Theatre Arts internal assessments

IBDP Theatre Arts SL or HL Honors

Course #IB1451

36 weeks (1 cr.); elective; Grade 12

- Continue the study of theatre production including an in-depth research analysis project
- Prepare for the IB Theatre Arts SL or HL examination



Center for Leadership, Government, and Global Economics

Douglas S. Freeman High School

- Comprehensive curriculum preparing students to be knowledgeable, responsible, and ethical leaders
- An advanced studies program in government, history, and the free enterprise system
- Observation and interaction with leaders through partnerships and special programs
- Application of leadership skills and principles through curricular and co-curricular activities, community service, and enrichment programs
- Identification and development of personal leadership qualities through presentations, research, and mentorship programs

Sample Four-Year Curriculum

Grade 9	Grade 10	Grade 11	Grade 12
Center Module I English 9 +World History & Geography II Foundations of Leadership I	Center Module II English 10 Foundations of Leadership II AP Human Geography	Center Module III Leadership Ethics Seminar AP Virginia and United States History	Center Module IV AP Macroeconomics (1/2) AP Microeconomics (1/2) AP Government Senior Internship and Leadership Mentoring
Mathematics Science *World Lang. Health and P.E.	Mathematics Science *World Lang. Health and P.E. Economics & Personal Finance	English 11 *Mathematics or Elective *Science or Elective *World Lang. or Elective Elective	English 12 *Mathematics or Elective *Science or Elective *World Lang. or Elective

NOTES: * Refer to Section I to determine which graduation requirements apply to you.

- + It is highly recommended that the students complete World History & Geography I before enrolling in this Center. This course is required for the Advanced Studies Diploma and the Center Diploma Seal but is NOT included in the Center's curriculum.
- All students, beginning with the graduating class of 2015, must successfully complete the Economics and Personal Finance course or an acceptable alternative as an elective or online.

Course Descriptions

Foundations of Leadership I Honors

Course #2994

36 weeks (1 cr.); required for Center students; Grade 9

- Examine leadership styles of effective leaders
- Focus on the theories and competencies of leadership and group dynamics
- Emphasize knowledge of economic principles as a foundation for leadership growth

Foundations of Leadership II Honors

Course #2995

36 weeks (1 cr.); required for Center students; Grade 10

- Explore fundamental principles of psychology and sociology, as well as individual and group roles as they relate to society
- Study the impact of institutions on individuals, culture and society
- Focus on leadership in the contexts of formal organizations, government systems, social movements, and community organizations

AP Human Geography

Course #2212

36 weeks (1 cr.)

- Study human impact on the Earth's resources and environment
- Understand societal roles and relationships and their interdependence with one another
- Examine population trends and cultural patterns

Leadership Ethics Seminar Honors

Course #2996

36 weeks (1 cr.); required for Center students; Grade 11

- Examine major theories of philosophy and ethics from antiquity to the present
- Analyze competing ethical systems from different cultures
- Examine the relationship of law, justice and morality in contemporary American jurisprudence

Senior Internship and Leadership Mentoring Honors

Course #2997

36 weeks (1 cr.); required for Center students; Grade 12

- Complete a 180 hour internship with a local business, agency, or community organization
- Examine and evaluate effective leadership styles through an internship experience
- Integrate prior knowledge and evaluate personal performance during an internship experience

AP Microeconomics/AP Macroeconomics Honors

Course #2806 (micro); #2807 (macro)

18 weeks (.5 cr.); required for Center students; Grade 12

- Develop a fundamental understanding of the global marketplace and the functioning of a market economy
- Develop familiarity with economic performance measures, economic growth, and international economics
- Evaluate the nature and functions of product markets, factor markets, and the role of government in promoting greater efficiency and equity in the economy



Todd Allen Phillips Center for Medical Sciences

Mills E. Godwin High School

- A challenging curriculum preparing students to be analytical thinkers and diagnostic scientific researchers
- An accelerated course of studies in science and mathematics supplemented with exposure to topics relevant to the Life and Health Sciences
- Topical application of developed scientific inquiry and data analysis skills to advancements and ethical considerations in the Medical Sciences
- Mentored scientific research experiences in individual and collaborative settings
- Interaction with medical and scientific specialists through guest lectures and competitions

Sample Four-Year Curriculum

Grade 9	Grade 10	Grade 11	Grade 12
Center Module I: Medical Biology: (Honors) Research Analytics: Algebra 2 (Honors) Scientific Research (Honors)	Center Module II: Medical Chemistry: (Honors) Research Analytics: PreCalculus (Honors) ^AP Statistics (AP)	Center Module III: AP Physics I <i>or</i> C: (AP) AP Calculus AB: (AP) ^AP Science Elective: (AP) *Center Elective: (Honors)	Center Module IV: AP Physics I, II, <i>or</i> C: (AP) AP Calculus BC (AP) *Center Elective: (Honors)
English 9 World History I <i>or</i> II World Language Health and P.E. 9	English 10 World History II <i>or</i> Elective World Language Health and P.E. 10	English 11 Virginia and US History World Language Electives	English 12 Virginia and US Government World Language Electives

NOTES:

1. Students should refer to Section I of this Planning Guide to determine specific graduation requirements
2. Students must meet Specialty Center admission/enrollment criteria through successful completion of Algebra I as a full-year course. Geometry may be taken as an Honors course during 9th grade or online during the summer preceding 9th or 10th grade.
3. All students, beginning with the graduating class of 2015, must successfully complete the Economics and Personal Finance course or an acceptable alternative as an elective or online.

^ Year of enrollment in AP Statistics and the required AP Science elective will be recommended by Specialty Center mathematics and science instructor(s) in accordance with the students' plan of study.

* All students must complete 2 Specialty Center Elective courses to be chosen from: *Anatomy & Physiology, Biostatistics & Data Analysis, Genetics & Biotechnology, Organic & Biochemistry, and Microbiology & Immunology*

Course Descriptions

Medical Biology - Honors

Course #4610
 36 weeks (1 cr.); required for Center students;
 Grade 9

- ✓ SOL Biology end-of-course test
- Investigate core curriculum concepts of Biology through unifying themes
- Use mathematical and scientific techniques and laboratory experiences to diagnose, analyze, and solve problems
- Engage in independent research

Medical Chemistry - Honors

Course #4612
 36 weeks (1 cr.); required for Center students;
 Grade 10

- ✓ SOL Chemistry end-of-course test
- Investigate core curricular concepts of inorganic Chemistry as well as introductory concepts of organic Chemistry and Biochemistry through unifying themes
- Provide an inquiry-based learning environment emphasizing field work and laboratory experiences
- Engage in independent research

AP Physics I

Course #4573
 36 weeks (1 cr.); elective
 High schools; Grades 10-12

- Study Newtonian mechanics (including rotational dynamics and angular momentum); work, energy and power; mechanical waves and sound; and electric circuits
- Prepare for the Advanced Placement Physics I exam

AP Physics C: Mechanics

Course #4571
 36 weeks (1 cr.); elective
 High schools; Grades 11-12

- Study kinematics; Newton's laws of motion, work, energy, and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation
- Prepare for the Advanced Placement Physics C: Mechanics exam



Todd Allen Phillips Center for Medical Sciences
Mills E. Godwin High School
Course Descriptions (cont.)

Organic & Biochemistry - Honors

Course #4450

36 weeks (1 cr.); elective for Center students;
 Grades 11-12

- Investigate the chemistry of carbon with focus on functional groups, their properties, and their characteristic reactions
- Explore substitution and elimination reactions with an introduction to the chemistry of aromatic compounds
- Cover chemical properties of biological systems: chemical and physical properties of nucleotides, amino acids, proteins, and water

Research Analytics: Geometry - Honors

Course #3243

36 weeks (1 cr.); required for Center students;
 Grade 9

- ✓ SOL Geometry end-of-course test
- Investigate core curricular concepts of Geometry through unifying themes
- Master concepts and skills in graphing, algorithms, functions and proofs as problem-solving techniques
- Explore discrete topics related to Geometry

Research Analytics: Algebra 2 - Honors

Course #3233

36 weeks (1 cr.); required for Center students;
 Grades 9-10

- ✓ SOL Algebra 2 end-of-course test
- Investigate core curricular concepts of Algebra 2 through unifying themes
- Use computers and calculators to model and solve data structures
- Promote problem-solving through modeling, investigation, and analysis

Research Analytics: PreCalculus - Honors

Course #3262

36 weeks (1 cr.); required for Center students;
 Grades 9-11

- Investigate the characteristics and applications of trigonometric functions
- Develop skills in functions and their inverses in preparations for Calculus
- Explore mathematical connections to the physical and biological sciences

Scientific Research - Honors

Course #9820

36 weeks (1 cr.); required for Center students;
 Grade 9

- Introduce experimental design and statistical analysis tools enabling diagnostic problem-solving and inference
- Study the process of experimental scientific research including hypothesis formulation, literature review, and data analysis
- Perform an original student research project and present results in written, oral, and electronic form

AP Statistics

Course #3191

36 weeks (1 cr.); required for Center students;
 Grade 10, 11, or 12

- Develop statistical analysis tools, statistical and probabilistic reasoning
- Use curve fitting to predict from data
- Apply statistical knowledge to student's independent research

(See Course #3191 in Section V for specific course content)

Microbiology & Immunology - Honors

Course #4338

36 weeks (1 cr.); elective for Center students;
 Grades 11- 12

- Develop Microbiology techniques and skills needed in the identification of pathogenic organisms that cause disease
- Investigate host infection/defense mechanisms, resistance, and treatments for pathogens that alter the body's homeostatic processes
- Study the physical and chemical characteristics of the components of the immune system

Genetics & Biotechnology - Honors

Course #4348

36 weeks (1 cr.); elective for Center students;
 Grades 11 - 12

- Develop techniques of restriction enzyme digestion, DNA profiling, population genetics, and simple genetic engineering
- Master techniques of gel electrophoresis, polymerase chain reaction, and blotting
- Investigate the advanced topics in Genetics such as epistasis, chromosomal mapping, and gene linkage

Introduction to Biomedical Engineering Honors

Course #4616

36 weeks (1 cr.); elective for Center students;
 Grade 11 or 12

- Explore the connection between science and engineering to solve health problems
- Utilize current technologies to visualize experimental options in health sciences
- Understand the merging of math, science and technology in bioengineering

Anatomy & Physiology - Honors

Course #4330

36 weeks (1 cr.); elective for Center students;
 Grades 11-12

- Study the structure and function of body parts
- Investigate the function and organization of body systems – skeletal, muscular, cardiovascular, respiratory, and sensory
- Explore the relationship between the body as a living system and its parts

AP Calculus AB

Course #3177

36 weeks (1 cr.); required for Center students;
 Grade 11 or 12

(See Course #3177 in Section V for specific course content)

AP Calculus BC

Course #3179

36 weeks (1 cr.); required for Center students;
 Grade 12

(See Course #3179 in Section V for specific course content)

Biostatistics & Data Analysis - Honors

Course #4350

36 weeks (1 cr.); elective for Center students;
 Grades 11-12

- Investigate the design of biological experiments
- Study various data analysis techniques relevant to both static and dynamic human body metrics
- Explore statistical science and its application to problems of human health and disease



Center for Spanish Language and Global Citizenship

J. R. Tucker High School

- Development of a high level of language proficiency and cultural awareness
- Enrollment in accelerated language classes and other courses taught exclusively in the target language
- Opportunities to interact with guest speakers, business partners, elementary school students, and community members
- Ability to interact and establish relationships with the non-English speaking community locally and internationally

Sample Four-Year Curriculum

Grade 9	Grade 10	Grade 11	Grade 12
Center Module I Immersion Spanish 9 Other World Language Level I Immersion Spanish Health & P.E. 9	Center Module II Immersion Spanish 10 Immersion World History & Geography II	Center Module III Immersion Spanish 11 AP Field Experience Immersion Elective	Center Module IV Immersion Spanish 12 AP Immersion Elective
English 9 Science *Social Studies Mathematics	English 10 Health & P.E. 10 Science Economics and Personal Finance Mathematics	English 11 Virginia and United States History *Science *Mathematics Elective	English 12 Virginia and United States Government *Science/Elective *Mathematics/Elective Elective

NOTE: * Please refer to Section I of the Planning Guide to determine which graduation requirements apply to you. In addition to the required Center language courses, students must complete an additional year of another world language.

- All students, beginning with the graduating class of 2015, must successfully complete the Economics and Personal Finance course or an acceptable alternative as an elective or online.

Course Descriptions

Immersion Spanish 9 Honors

Course #5520 (Spanish)

36 weeks (1 cr.); required for Center students;
Grade 9

- Develop proficiency skills where Spanish is the exclusive means of communication
- Explore customs and cultures where the target language is spoken
- Explore relationships with non-English speaking members of the local and international community

Spanish Study Abroad

#5535 (Spanish)

Summer (1 cr.); elective

Center students may choose to travel after Grade 10 or 11.

- Pass/Fail
- Acquire knowledge of culture and history through a home-stay experience during the summer
- Complete preparatory work before travel and post-travel projects

Note: Students receive credit for the Center's Exchange Program but do not receive credit for other travel experiences. Credit is posted on the student's transcript during the school year following travel.

Immersion Spanish 10 Honors

Course #5530 (Spanish)

36 weeks (1 cr.); required for Center students;
Grade 10

- Improve communication skills where Spanish is the exclusive means of communication
- Apply language skills through analysis of customs and traditions
- Develop relationships with non-English speaking members of the local and international community



Center for Spanish Language and Global Citizenship
J. R. Tucker High School
Course Descriptions (cont.)

Immersion Spanish 11, AP Spanish Language Honors

Course #5570 (Spanish)
36 weeks (1 cr.); required for Center students;
Grade 11

- Refine fluency through the advanced study of language structures and vocabulary
- Analyze and evaluate various literary works and themes to prepare for the Advanced Placement Spanish Language exam

Immersion Spanish 12, AP Spanish Literature Honors

Course #5580
36 weeks (1 cr.); required for Center students;
Grade 12

- Perfect Spanish language skills for use beyond the classroom
- Complete an in-depth study of authors and works to include all of the suggested readings and preparation for the Advanced Placement Spanish Literature exam

Immersion Health and PE 9

Course #7300
36 weeks (1 cr.); required for Center students;
Grade 9

- Taught in the target language
- Allows students the opportunity to increase their fluency through teamwork and cooperation

(See course #7300 in Section V for specific course content)

Cultures and Connections Honors

Course #1518
36 weeks (1 cr.); elective; offered every other year; counts as 1 fine arts credit; Grades 10, 11 or 12; Instructed in Spanish

- Develop an understanding of/and an appreciation for the historical and cultural elements that contribute to the Spanish and Latin American civilizations
- Study the music, art, literature and culture of Spanish-speaking countries from early times to present

Field Experience Honors

Course #5998
36 weeks (1 cr.); Grades 11 or 12 required for Center students; counts as a practical arts credit; instructed in Spanish

- Complete a minimum of 40 hours of approved community service
- Expand world language skills working with elementary school students or by working with an organization, business or agency that has international ties

Immersion World History & Geography II Honors

Course #2216
36 weeks (1 cr.); required for Center students; Grade 10

- ✓ SOL World History II end-of-course test
- Taught in Spanish
- See Course #2216 in Section V for specific course content

Contemporary Perspectives Honors

Course #5997
36 weeks (1 cr.); elective; offered every other year; Grades 10, 11, or 12. Instructed in Spanish

- Improve language skills and comprehension through Spanish newspapers, magazines, television and online resources
- Understand and respond to current issues using authentic materials and resources

Conversation and Composition Honors

Course #5505
36 weeks (1 cr.); Grades 10, 11, or 12

- Improve interpersonal and presentational communication, accent, intonation, and fluency
- Expand vocabulary
- Strengthen complex grammar and usage





- SECTION V -
Course
Descriptions



AGRICULTURAL EDUCATION

Greenhouse Management

Course #8035

36 weeks (3 cr.); elective

ACE Center at Hermitage, The Academy at Virginia Randolph

- Study the production of greenhouse crops by working in a greenhouse setting
- Study flower and plant arrangements, soils, nutrients, and the propagation and transplantation of plants
- Produce foliage and bedding plants

Landscaping

Course # 8036

36 weeks (3 cr.); elective

ACE Center at Hermitage, The Academy at Virginia Randolph

- This course focuses on preparing students for entry-level employment and advancement in landscape design, landscape construction, and landscape maintenance
- Students gain experience in the use of hand and power tools related to landscaping
- Students gain experience in turf care and grounds maintenance

ART

Art Exploratory Grade 6

Course #9103

9-18 weeks; elective

Middle schools

- Appreciate art, its history, aesthetics and criticism
- Participate and create using a variety of art media and techniques including computer
- Explore art vocabulary, visual literacy and art from different cultures

Art 6

Course #9104

36 weeks; elective

Middle schools

- Learn art, its history, aesthetics and criticism
- Study elements and principles of design using a variety of media including computer
- Maintain a portfolio; use art vocabulary, understand visual literacy and cultural art

Art 7

Course #9105

36 weeks; elective

Middle schools

- Learn art, its history, aesthetics and criticism
- Study elements and principles of design using a variety of media including computer
- Maintain a portfolio; use art vocabulary, understand visual literacy and cultural art

Art Exploratory Grade 7 or 8

Course #9106

18 weeks; elective

Middle schools

- Appreciate art, its history, aesthetics and criticism
- Participate and create using a variety of art media and techniques including computer
- Maintain a portfolio; explore art vocabulary, visual literacy and cultural art

Art 8

Course #9115

36 weeks; elective

Middle schools

- Learn art, its history, aesthetics and criticism
- Study elements and principles of design using a variety of media including computer
- Maintain a portfolio; use art vocabulary, understand visual literacy and cultural art

Introduction to Computer Art

Course #9107

18 weeks; elective

Middle schools

- Use computer and peripherals to create art and animation
- Study elements and principles of design, digital imaging
- Maintain a portfolio

Introduction to Art History

Course #9108

18 weeks; elective

Middle schools

- Explore art relating it to world history, science and culture
- Study elements and principles of design, aesthetics and art criticism
- Enjoy studio experiences using various art techniques and media

Introduction to Crafts

Course #9109

18 weeks; elective

Middle schools

- Explore role of crafts in different cultures
- Develop skills in a variety of craft technique
- Explore the role of crafts within fine arts

Art I, Discovering Art

Course #9120

36 weeks (1 cr.); elective

Middle school - Teacher recommendation required

High schools

- Learn art, its history, aesthetics and criticism using written and oral formats
- Study elements and principles of design using a variety of media including computer
- Maintain a portfolio; use art vocabulary, understand visual literacy and cultural art

Senior Art I

Course #9121

36 weeks (1 cr.); elective; only for seniors who have never taken Art I

High schools

- Learn art, its history, aesthetics and criticism using written and oral formats with same grade level students
- Study elements and principles of design using a variety of media including computer
- Maintain a portfolio; use art vocabulary, understand visual literacy and cultural art

Art II, Exploring Art

Course #9130

36 weeks (1 cr.); elective

High schools

- Expand study of art, its history, aesthetics and criticism
- Study elements and principles of design using a variety of media including computer
- Collect portfolio works; increase art vocabulary and understanding of visual culture

Art III, Applied Arts and Design

Course #9140

36 weeks (1 cr.); elective

High schools

- Build on previous study of art, its history, aesthetics, criticism and vocabulary
- Apply personal themes to 2D and 3D projects. Differentiate between fine and commercial art
- Finalize a portfolio for advanced placements

Art IV, Advanced Art

Course #9145

36 weeks (1 cr.); elective

High schools

- Develop works based on personal themes and assess using personal aesthetics
- Apply art vocabulary, history, aesthetics and criticism through written and verbal formats
- Organize and critique works for a final portfolio

Art IV, Advanced Art Honors

Course #9145

36 weeks (1 cr.); elective

- See Course #9145 above for content
- Fulfill additional Honors requirements

Art V, Advanced Art

Course #9146

36 weeks (1 cr.); elective

High schools

- Develop multi-media works based on personal themes and expression
- Apply art vocabulary, history, aesthetics and criticism through written and verbal formats
- Organize and critique works for a final portfolio. Research art careers and education opportunities

Art V, Advanced Art Honors

Course #9146

36 weeks (1 cr.); elective

- See Course #9146 above for content
- Fulfill additional Honors requirements

Introduction to Art

Course #9123

18 weeks (.5 cr.); elective

High schools

- Explore art, its history, aesthetics and criticism
- Participate and create using a variety of art media and techniques including computer
- Maintain a portfolio

School Service Art

Course #9122

18 weeks (.5 cr.); elective

36 weeks (1 cr.); elective

High schools

- Learn how to use elements and principles of design in daily living
- Explore lettering, silkscreen, computers, layout and design
- Apply skills to advertising, poster, bulletin board and display design and school service projects

Drawing

Course #9142

18 weeks (.5 cr.); elective

36 weeks (1 cr.); elective

High schools

- Explore history of drawing
- Understand its relationship to artistic development and self-expression
- Use a wide variety of drawing techniques and maintain a portfolio

Painting

Course #9151

18 weeks (.5 cr.); elective

36 weeks (1 cr.); elective

High schools

- Explore history of painting; use a variety of painting techniques and media
- Understand its relationship to artistic development and self-expression
- Use the elements and principles of design in painting; maintain a portfolio

Design

Course #9141

18 weeks (.5 cr.)

36 weeks (1 cr.)

Elective for students who have completed Art II (may be repeated for credit)

High schools

- Use elements and principles of design relating to art and the environment
- Combine art history, vocabulary, visual culture into 2 and 3D projects
- Maintain a portfolio. Teacher recommendation required

Directed Independent Study

Course #9147

18 weeks (.5 cr.)

36 weeks (1 cr.)

Elective for students who have completed Art IV or equivalent advanced coursework

High schools

- Complete research based on previous art experiences. Maintain a portfolio
- Correlate art history with art projects related to major area of interest
- Develop self-directed project that is specialized, experimental and researched

AP Studio Art 2D Design

Course #9148

36 weeks (1 cr.); elective for students who are highly motivated and committed to the serious study of art

High schools

- Engage in artistic study and production based on excellence and personal interest
- Develop 2D works that are specialized, experimental and research based
- Produce required portfolio for the Advanced Placement exam

AP Studio Art 3D Design

Course #9149

36 weeks (1 cr.); elective for students who are highly motivated and committed to the serious study of art

High schools

- Engage in artistic study and production based on excellence and personal interest
- Develop 3D works that are specialized, experimental and research based
- Produce required portfolio for the Advanced Placement exam

AP Studio Art Drawing

Course #9150

36 weeks (1 cr.); elective for students who are highly motivated and committed to the serious study of art

High schools

- Engage in artistic study and production based on excellence and personal interest
- Develop works that are specialized, experimental and research based
- Produce required portfolio for the Advanced Placement exam

Foundations of Digital Media, Art and Design

Course #9152

18 weeks (.5 cr.); elective

High schools

- Explore the basic concepts of computer art and programs
- Use the elements and principles of design in digital images
- Understand the differences between fine and computer generated art

Digital Media, Art and Design I

Course #9153

36 weeks (1 cr.); elective

High schools

- Creatively use computer software and peripherals
- Study the history of computer art, graphics, fine art, art history, aesthetics and criticism
- Apply the elements and principles of design to digital images. Maintain a portfolio

Digital Media, Art and Design II

Course #9197

36 weeks (1 cr.); elective

High schools

- Develop computer art skills in commercial and fine art, image manipulation and more
- Understand in depth art history, aesthetics and criticism and correlate to computer art
- Apply the elements and principles of design to digital images. Maintain a portfolio

Digital Media, Art and Design III

Course #9180

36 weeks (1 cr.); elective

High schools

- Refine computer art skills; categorize work based on personal themes and techniques
- Increase knowledge of art history, aesthetics and criticism and correlate to computer art
- Finalize a portfolio for advanced placements

Digital Media, Art and Design IV Honors

Course #9181

36 weeks (1 cr.); elective

High schools

- Use advanced computer art skills in video, presentation, marketing, 3D and publication
- Correlate art history, aesthetics and criticism to computer art. Explore copyright
- Critique using proper vocabulary and organize a final portfolio

Crafts

Course #9160

18 weeks (.5 cr.); elective

36 weeks (1 cr.); elective

(may be repeated for credit)

High schools

- Explore the role of crafts in different cultures
- Develop skills in selected crafts
- Understand aesthetics and criticism in relation to crafts

Foundations of Ceramics

Course #9162

18 weeks (.5 cr.); elective

High schools

- Work with clay and ceramics techniques
Develop an appreciation for methods
- Use elements and principles in ceramics
- Learn the history of ceramics

Ceramics I

Course #9163

36 weeks (1 cr.); elective

High schools

- Techniques emphasized: hand-building, wheel throwing, glazing and firing
- Explore the role of ceramics in art history and various cultures
- Understand the aesthetics and criticism relating to ceramics

Ceramics II

Course #9164

36 weeks (1 cr.); elective

High schools

- Refine techniques: hand building, wheel throwing, experimental glazing and firing
- Continue explorations in the role of ceramics in art history and various cultures
- Understand the aesthetics and criticism relating to ceramics. Maintain a portfolio

Art History Honors

Course #9170

36 weeks (1 cr.); elective; for students in grades 11 and 12

High schools

- Survey and correlate art and aesthetics with world history and humanities
- Study major periods of art through a variety of media, critiques and gallery visits
- Use art vocabulary to recognize, describe, analyze, and judge works of art

AP Art History

Course #9171

36 weeks (1 cr.); elective

High schools

- See course #9170 above for basic course content
- Fulfill additional requirements in preparation for AP Art History examination

BUSINESS AND INFORMATION TECHNOLOGY

Cooperative Education is a method of instruction that combines career and technical classroom instruction with paid employment directly related to the classroom instruction. Instruction is developed and conducted in consultation with employers having skills and considerable knowledge of the occupational field represented by the student's career objective. Individualized, written training plans are developed to correlate the classroom instructions with the on-the-job training. Formal and informal evaluations of student progress including feedback are completed to assist learners in improving their work performance. To participate in and earn cooperative education (co-op) credit, a student must combine classroom instruction and a minimum of 396 hours of continuous, supervised on-the-job training. *Course numbers ending with a V indicate a Cooperative Education course.

21st Century Computer Skills

Course #6151

18 weeks (.5 cr.); elective

Middle/high schools

- Develop keyboarding speed and accuracy
- Key and format notes, letters, resumes, and reports
- Produce documents that incorporate graphic elements such as images, tables, and graphs

Accounting

Course #6320

36 weeks (1 cr.); elective

Course #6320V

36 weeks (Co-op, 1 cr.); elective

High schools

- Learn accounting principles
- Learn the need for financial management and records in business and home
- Evaluate accounting done manually and by computers

Accounting II

Course #6321

36 weeks (1 cr.); elective

Course #6321V

36 weeks (Co-op, 1 cr.); elective

High schools

- Use microcomputers to automate and interpret payroll, inventory, accounts payable, and accounts receivable
- Learn management of financial records through business activities, partnership and corporate accounting, general ledger, and cost accounting

Business Law

Course #6131

36 weeks (1 cr.); elective

Course #6131V

36 weeks (Co-op, 1 cr.); elective

Course #6132

18 weeks (.5 cr.); elective

High schools

- Examine the American legal system
- Study the legal rights of minors and adults as American citizens
- Study contract, insurance, sales/credit, real estate, and employment laws

Business Management

Course #6135

36 weeks (1 cr.); elective

Course #6135V

36 weeks (Co-op, 1 cr.); elective

Course #6136

18 weeks (.5 cr.); elective

High schools

- Acquire overview of national and international business
- Explore social and economic environments of business
- Learn all aspects of business ownership

Computer Applications

Course #6617

18 weeks (.5 cr.); elective

Middle/high schools

- Develop touch skills for entering alphabetic information on a keyboard
- Explore computer terminology, components, and functions
- Learn concepts of word processing, spreadsheets, database, and presentations

Desktop/Multimedia Presentations

Course #6630

36 weeks (1 cr.); elective

Course #6630V

36 weeks (Co-op, 1 cr.); elective

Course #6632

18 weeks (.5 cr.); elective

High schools

- Develop proficiency in using desktop publishing software
- Work with hardware/software to develop interactive multimedia presentations

Discovering Business & IT

Course #6608

9 weeks; elective

Middle schools

- Develop keyboarding, communications, and digital citizenship skills
- Explore elements of coding and computer science
- Create digital projects using the latest technology tools

Digital Input Technologies

Course #6160

18 weeks; elective

8th grade

- Explore the Digital Input Technologies Mix
- Use Digital Imaging and Audio Devices
- Learn Speech Recognition techniques

Economics and Personal Finance

Course #6120

36 weeks (1 cr.); required;

High schools (10-12)

(Course available online)

- Explore financial literacy and economic education through practical experiences
- Learn investment strategies for building a portfolio
- Consider factors to establish credit and acquire loans

Exploring Business Computers

Course #6150

9 weeks; elective

Middle schools

- Develop touch skills for entering alphabetic information on a keyboard
- Learn computer terminology and concepts
- Use equipment and materials efficiently

Exploring Computer Science

Course #6670

36 weeks (1 cr.); elective

8th grade/high schools

- Master Information Technology basics
- Learn programming, web page, graphics, and interactive media basics
- Maintain, upgrade, and troubleshoot computers

Introduction to Coding

Course #6609

18 weeks; elective; Grades 7-8

- Learn the basic tools of computer programming
- Explore social and ethical concerns relating to working in the software development field
- Use a variety of software to solve problems

Legal Systems Administration

Course #6735

36 weeks (3 cr.); elective

ACE Center at Hermitage

- Study terminology and procedures to prepare legal documents
- Obtain preparation for continuing education in a law-related occupation
- Prepare legal documents using microcomputer software

Make It Your Business

Course #8112

9 weeks; elective

Course #8114

18 weeks; elective

Middle schools

- Learn business terminology and business principles
- Use the computer as a problem-solving tool to design business documents
- Participate in team-building activities

Medical Systems Administration

Course #6730

36 weeks (3 cr.); elective

ACE Center at Hermitage

- Acquire skills used in doctors' offices and hospital records departments
- Learn medical terminology and procedures
- Prepare medical correspondence and insurance forms/documents

Microsoft IT Academy

Course #6612

36 weeks (1 cr.); elective

Course #6612V

36 weeks (Co-op, 1 cr.); elective

High schools

- Learn microcomputer terminology
- Learn fundamentals of MS Office Suite, Windows, and programming concepts
- Use software employed in colleges and businesses in the Richmond area

Advanced Microsoft IT Academy Honors

Course #6613

36 weeks (1 cr.); elective

alone or with

Course #6613V

36 weeks (Co-op, 1 cr.); elective

High schools

- Create professional documents demonstrating principles of layout design
- Use computer peripherals to produce multimedia presentations
- Create, post, and maintain a website

Office Administration

Course #6621

36 weeks (1 cr.); elective

Course #6621V

36 weeks (Co-op 1 cr.); elective

High schools

- Develop office procedure skills
- Learn operation of office equipment, document preparation, records management, recordkeeping, and information processing
- Increase oral and written communication skills

Principles of Business and Marketing

Course #6115

36 weeks (1 cr.); elective

Course #6116

18 weeks (.5 cr.); elective

High schools

- Explore the roles of business and marketing in the free enterprise system
- Make decisions as consumers, wage earners, and citizens
- Plan for further study in business and marketing careers

Programming Honors

Course #6640

36 weeks (1 cr.); elective

Course #6640V

36 weeks (Co-op, 1 cr.); elective

High schools

- Enter, run, and compile a program
- Use variables and constants
- Program math operations and computer graphics

Web Development/Programming

Course #D6630 & #D6640

36 weeks (3 cr.); elective

ACE Center at Hermitage

- Understand the business of web site development
- Construct web pages using HTML, CSS and javascript programming
- Master concepts required to pass CIW Site Development Foundations exam

Advanced Web Development/Advanced Programming

Course #D6631 & #D6641

36 weeks (3 cr.); elective

ACE Center at Hermitage

- Develop real-world programming and application development skills
- Develop real-world dynamic database driven web applications
- Master concepts to pass CIW Design Specialist exam

Word Processing

Course #6626

18 weeks (.5 cr.); elective

Middle/high schools

- Learn intermediate/advanced word processing with desktop publishing
- Integrate database and spreadsheet into word processing activities
- Expand skills acquired through integrated applications and simulations

DRIVER EDUCATION

Driver Education and Highway Safety

Course #7040

18 weeks (.5 cr.); elective

Students must have a valid Virginia learner's permit on the first day of class.

High schools

- Identify and interpret traffic safety regulations
- Demonstrate decision-making skills to operate a motor vehicle, and explain the effects of alcohol and other drugs on driving tasks
- Demonstrate knowledge of car systems and maintenance, as well as maintain a driving log

DUAL ENROLLMENT COURSES

Refer to Section III entitled *Career and Technical Education* to identify dual enrollment courses

ENGLISH/ LANGUAGE ARTS

College and Career Readiness

Course #9813

18 weeks (.5 cr.); elective

High schools

- Improve reading and writing skills with a focus on college entrance exams
- Improve math skills with a focus on college entrance exams
- Explore college application and search processes
- Focus on career education and readiness

English 6

Course #1109

36 weeks; required

Middle schools

- ✓ Grade 6 SOL Reading test
- Develop independence in vocabulary acquisition
- Read for comprehension a variety of literature, nonfiction, and informational text
- Develop narratives, descriptions, and explanations through the writing process

English 6 Advanced

Course #1109

36 weeks; required

Middle schools

- ✓ Grade 6 SOL Reading test
- Experience inquiry-based instruction through the theme of "Change"
- Begin two-year research project
- Read a variety of literature in connection to the theme

English 7

Course #1110

36 weeks; required

Middle schools

- ✓ Grade 7 SOL Reading test
- Begin study of figurative language, connotations, and analogies
- Read and analyze a variety of literature, nonfiction, and informational text
- Develop persuasive and expository pieces through the writing process

English 7 Advanced

Course #1110

36 weeks; required

Middle schools

- ✓ Grade 7 SOL Reading test
- Experience inquiry-based instruction through the theme of "Persuasion"
- Complete two-year research project
- Read a variety of literature in connection to the theme

English 8

Course #1120

36 weeks; required

Middle schools

- ✓ Grade 8 SOL Reading test
- ✓ Grade 8 SOL Writing test
- Describe themes and draw conclusions from literature
- Continue to develop an appreciation of literary elements
- Develop informational, persuasive, and expository pieces through the writing process

English 8 Advanced

Course #1120

36 weeks; required

Middle schools

- ✓ Grade 8 SOL Reading test
- ✓ Grade 8 SOL Writing test
- Deepen analysis of a variety of literature through text annotation
- Craft essays that increase insight into literature and life
- Begin manipulating grammar and syntax for intended effect

English 9

Course #1130

36 weeks (1 cr.); required

High schools

- Apply knowledge of literary terms and forms to analysis of literature and informational materials
- Write in a variety of forms with an emphasis on analysis
- Develop research skills in using a variety of print and electronic sources to access information

English 9 Honors

Course #1130

36 weeks (1 cr.); required

High schools

- Analyze the meaning and effect of a passage related to grammar and syntax
- Write increasingly complex essays as a result of studying professional writers
- Understand use of rhetorical and literary devices to create meaning

English 10

Course #1140

36 weeks (1 cr.); required

High schools

- ✓ SOL English end-of-course EOC Writing test (2 parts; 1 verified credit)
- Read, comprehend, critique, and analyze a variety of literature
- Develop expository writing skills by analyzing and critiquing peers and professionals
- Develop research skills in accessing, evaluating, and organizing information

English 10 Honors

Course #1140

36 weeks (1 cr.); required

High schools

- ✓ SOL English end-of-course EOC Writing test (2 parts; 1 verified credit)
- Read more complex, layered texts with tone shifts and multiple tones
- Connect tools of persuasion to the meaning of a work as a whole
- Develop a distinct voice as a writer by choosing sentence structures, details, etc.

English 11

Course #1150

36 weeks (1 cr.); required

High schools

- ✓ SOL English end-of-course EOC Reading test (1 verified credit)
- Analyze relations among American literature, history, and culture
- Refine writing skills with an emphasis on persuasion
- Create a documented research project

English 11 Honors*Course #1150**36 weeks (1 cr.); required**High schools*

- ✓ SOL English end-of-course EOC Reading test (1 verified credit)
- Identify prevalent themes, universal characters, and genres in American literature
- Use the tools of rhetoric to develop persuasive writing
- Create an independent, documented, research project

AP English 11, Language & Composition*Course #1196**36 weeks (1 cr.); may be taken in lieu of English 11**High schools*

- ✓ SOL English end-of-course EOC Reading test (1 verified credit)
- Use nonfiction texts to identify and explain use of rhetorical strategies
- Compose argumentative writing assignments based on readings
- Prepare for the Advanced Placement Language and Composition Exam

English 12*Course #1160**36 weeks (1 cr.); required**High schools*

- Analyze world literature
- Produce a well-documented research paper
- Fine tune learning, thinking, studying, and writing skills

English 12 Honors*Course #1160**36 weeks (1 cr.); required**High schools; Course is available online*

- Analyze the development of world literature
- Refine writing skills
- Demonstrate independent and cooperative learning skills

AP English 12, Literature & Composition*Course #1195**36 weeks (1 cr.); may be taken in lieu of English 12**High schools*

- Focus on the historical and philosophical influences on literature
- Write pieces that require analysis, synthesis, and evaluation
- Prepare for the Advanced Placement Literature & Composition Exam

Shakespeare Studies Honors*Course #1100**36 weeks (1 cr.); elective; recommendation required**High schools (online)*

- Experience interactive, online learning of Shakespeare
- Study a variety of Shakespeare's work
- Attend required after-hours and off-site meetings

Advanced Shakespeare Studies Honors*Course #1104**36 weeks (1 cr.); elective; recommendation required**High schools*

- Study lesser-known works of Shakespeare
- Examine Shakespeare's influence on other works of literature
- Attend required after-hours and off-site meetings

Dramatic Literature*Course #1188**36 weeks (1 cr.); elective**High schools*

- Study classical and contemporary plays
- Learn the theatrical conventions involved with acting styles, playhouses, and costuming

World Literature*Course #1191**18 weeks (.5 cr.); elective**High schools*

- Expand knowledge of the western world
- Investigate themes in art, music, and literature through a humanities approach
- Study major writers, artists, and musicians that vary in time, place, and theme

World Literature Honors*Course #1191**36 weeks (1 cr.); elective**High schools*

- Survey Greek, French, Spanish, Italian, German, Scandinavian, and Russian cultures
- Examine the social, aesthetic, and intellectual traits of world literature
- Study a major work from each culture

Middle School Introduction To Creative Writing*Course #1170**18 or 36 weeks; elective**Middle schools*

- Explore the techniques used in writing short stories, plays, and poetry
- Apply learned principles to creative writing
- Submit compositions for publication in the school newspaper/literary magazine

Creative Writing*Course #1171**18 weeks (.5 cr.); elective**36 weeks (1 cr.); elective**High schools*

- Write short stories, poetry, drama, and essays
- Focus on the process of writing rather than the product
- Develop skills in rewriting

Advanced Composition/Creative Writing Honors*Course #1172**36 weeks (1 cr.); elective**High schools; Grades 11-12; may be repeated for credit*

- Learn that effective writing can be achieved through the application of certain skills
- Explore writing as an art to refine natural talent

Middle School Introduction To Journalism*Course #1199**36 weeks; elective**Middle schools*

- Focus on collecting, writing, editing, and publishing news
- Survey skills necessary to regularly publish a newspaper
- Gain experience by publishing a school newspaper

Journalism Skills*Course #1201**18 weeks (.5 cr.); elective**36 weeks (1 cr.); elective**High schools*

- Examine media assaults on the public
- Become aware of the responsibilities of journalists as well as the laws which govern them
- Improve skills for work on school publications

Journalism*Course #1200**36 weeks (1 cr.); elective; may be repeated for credit**High schools*

- Develop skills in newspaper style, news, features, sports, editorials, captions, etc.
- Develop skills in graphics, production, and advertising
- Explore legal restraints of free speech that affect high school publications

Photojournalism*Course #1215**36 weeks (1 cr.); elective; may be repeated for credit**High schools*

- Conceptualize journalistic procedures that record school year activities
- Incorporate taking photographs with script and art work
- Develop basic skills in desktop publishing

Creative Communications for Middle School*Course #9803**18 or 36 weeks; elective**Middle schools*

- Appreciate the power of words and the power of the media
- Explore drama and speech
- Experiment with a variety of methods for self-expression

Middle School Speech and Dramatics

Course #1389

36 weeks; elective

Middle schools

- Develop public speaking skills
- Explore dramatic skills such as improvisation, gestures, and voice projection
- Write scenes, dialogue, and speeches

Oral Communication I

Course #1300

36 weeks (1 cr.); elective

High schools

- Apply techniques of speaking, organizing, and delivering information
- Develop a variety of skills for presentations
- Deliver in-class speeches for a variety of purposes and audiences

Oral Communication II

Course #1302

36 weeks (1 cr.); elective

High schools

- Learn a variety of speech techniques
- Practice leading a discussion
- Study the styles of great speakers and practice speech techniques

Speech Communication

Course #1304

18 weeks (.5 cr.); elective

36 weeks (1 cr.); elective

High schools

- Examine the techniques of speaking as well as the composition of effective speeches
- Deliver in-class speeches for a variety of purposes and audiences
- Develop diction, enunciation, and other skills for presentations

Speech for Competition and the Stage

Course #1121

36 weeks (1 cr.); elective

High schools

- Study the competitive aspects of speech activities
- Develop rehearsal techniques and individual styles
- Prepare for public performances

Debate

Course #1111

36 weeks (1 cr.); elective; may be repeated for credit

High schools

- Study the elements of debate
- Develop research strategies, arguments, refutation and rebuttal, and delivery styles
- Appreciate the skills involved in selling an idea

Middle School Theatre Arts

Course #1409

36 weeks; elective

Middle schools

- Express self through creative dramatics, improvisations, and role playing
- Explore program design, set building, lighting, and props
- Participate in a school play

Theatre Arts I

Course #1410

18 weeks (.5 cr.); elective

36 weeks (1 cr.); elective

High schools

- Develop skills of speech, acting, stagecraft, and improvisation
- Experience acting exercises and improvisation
- Explore theatre appreciation, participation, and history

Theatre Arts II

Course #1420

36 weeks (1 cr.); elective

High schools

- Focus on technical theatre, speech, and play analysis for the actor
- Study play structure, action, and characterization
- Participate in live performances

Theatre Arts III

Course #1430

36 weeks (1 cr.); elective

High schools

- Explore theatre history and dramatic literature
- Produce and direct a one-act play
- Study actors and their techniques

Theatre Arts IV Directing Honors

Course #1440

36 weeks (1 cr.); elective

High schools

- Study the development of the director as an integral part of theatre
- Prepare a prompt book
- Apply the duties of a director to all performances

Stagecraft/Technical Theatre

Course #1435

18 weeks (.5 cr.); elective

36 weeks (1 cr.); elective; may be repeated for credit

High schools

- Develop skills in set construction
- Study the history of scene design
- Explore areas of theatre management

Introduction to the Humanities Honors

Course #1515

36 weeks (1 cr.); elective

High schools

- Examine the artistic and literary movements of the Western tradition and the political, economic, and social milestones of Western history
- Study the philosophy, religion, art, music and literature of the major cultural movements in Western history

African American Literature

Course #1519

36 weeks (1 cr.); elective

High schools

- Expand knowledge of African American culture through literature
- Investigate themes in art, music, and literature
- Study African American writers, artists, and musicians

ENGLISH AS A SECOND LANGUAGE (ESL)

English as a Second Language

Course #5705

36 weeks; required

Middle schools

- Acquire skills in understanding, speaking, reading and writing English
- Learn language to support social interactions
- Develop academic language to support core content

ESL Language and Cultures I and II

Course #5701 (I) and Course #5702 (II)

36 weeks (1 cr.); required for ESL Levels I and II; may be repeated for credit

High schools

- Build proficiency in English through the study of cultural topics associated with everyday life in the context of American culture
- Discuss signs, symbols and gestures as a form of communication

ESL Reading Across the Curriculum I, II, III

Course #5711 (ESL Level I)

Course #5721 (ESL Level II)

Course #5732 (ESL Level III)

36 weeks (1 cr.); required for ESL Levels I, II, and III; may be repeated for credit

High schools

- Begin/improve reading skills
- Acquire word-attack, comprehension and study skills
- Apply reading skills to content reading

ESL I

Course #5710

36 weeks (1 cr.); required; may be repeated for credit

High schools

- Develop social and academic vocabulary
- Begin/improve writing for communication and academic purposes
- Practice oral/aural skills

Vocational ESL I

Course #5713

36 weeks (1 cr.); elective for English learners

High schools

- Focus on the language used in everyday working situations
- Learn terminology used in specific vocational areas of study

Content ESL I

Course #5714

36 weeks (1 cr.); elective for English learners at proficiency level 1 or newcomers

High schools

- Practice listening, speaking, reading, and writing skills in English
- Develop academic vocabulary to support core content
- Build foundational knowledge in math, science or social studies

ESL Job Readiness Skills I

Course #5715

18 weeks (.5 cr.); elective for English learners

High schools

- Develop an understanding of proper work habits, work relationships, and dress
- Develop an understanding of paychecks, benefits and deductions
- Focus on searching and applying for a job, and preparing for an interview

ESL Independent Living Skills I

Course #5716

18 weeks (.5 cr.); elective for English learners

High schools

- Learn skills necessary for independent living
- Study money management, problem solving, interpersonal relationships, and other practical skills

ESL II

Course #5720

36 weeks (1 cr.); required; may be repeated for credit

High schools

- Expand social and academic vocabulary
- Improve ability to read and write for communication and academic purposes
- Practice oral/aural skills

Vocational ESL II

Course #5723

36 weeks (1 cr.); elective for English learners

High schools

- Focus on the terminology used in everyday working situations
- Learn terminology used in specific vocational areas of study
- Improve ability to read technical materials and instructions

Content ESL II

Course #5724

36 weeks (1 cr.); elective for English learners

High schools

- Practice listening, speaking, reading, and writing skills in English
- Build academic vocabulary to support core content
- Expand knowledge in math, science or social studies

ESL Job Readiness Skills II

Course #5725

18 weeks (.5 cr.); elective for English learners

High schools

- Expand understanding of proper work habits
- Expand and develop skills for securing and maintaining employment
- Participate in group counseling in career opportunities

ESL Independent Living Skills II

Course #5726

18 weeks (.5 cr.); elective for English learners

High schools

- Broaden skills necessary for independent living
- Expand knowledge in money management, home management, and consumer skills, decision-making skills, and problem solving

ESL III

Course #5730

36 weeks (1 cr.); required; may be repeated for credit

High schools

- Expand academic vocabulary
- Improve ability to read and write for communication and academic purposes
- Develop language skills to support performance in grade-level content courses

ESL IV

Course #5731

36 weeks (1 cr.); required; may be repeated for credit

High schools

- Expand academic vocabulary
- Approach grade-level ability to read and write for communication and academic purposes
- Expand language skills to support performance in grade-level content courses

ESL V

Course #5732

36 weeks (1 cr.); required; may be repeated for credit

High schools

- Expand academic vocabulary
- Perform at grade level in reading and writing
- Expand literacy skills to support performance in core content

Content Writing

Course #1516

36 weeks (1 cr.); elective

High Schools

- Build communication skills through writing and reading
- Improve skills in composing, mechanics and usage
- Acquire skills in reading, interpreting literature, and research

EXCEPTIONAL EDUCATION

Middle School Exceptional Education Course Offerings, Required by IEP Team Placement

MIDDLE SCHOOL ENGLISH

English 6

Course #1109E

- ✓ Grade 6 SOL Reading test
- Develop independence in vocabulary acquisition
- Read for comprehension a variety of literature, nonfiction, and informational text
- Develop narratives, descriptions, and explanations through the writing process

English 7

Course #1110E

- ✓ Grade 7 SOL Reading test
- Begin study of figurative language, connotations, and analogies
- Read and analyze a variety of literature, nonfiction, and informational text
- Develop persuasive and expository pieces through the writing process

EXCEPTIONAL EDUCATION

English 8

Course #1120E

- ✓ Grade 8 SOL Reading test
- ✓ Grade 8 SOL Writing test
- Describe themes and draw conclusions from literature
- Continue to develop an appreciation of literary elements
- Develop informational, persuasive, and expository pieces through the writing process

MIDDLE SCHOOL READING

Courses #1177, 1178, 1179

- Improve overall level of achievement through individual and group instruction
- Acquire word attack, vocabulary building, and comprehension skills
- Focus on reading and test-taking skills

MIDDLE SCHOOL MATH

Middle School Math Course 1

Course #3110E

- ✓ Grade 6 SOL test
- Develop understanding and skills with fractions, decimals, and ratios
- Investigate geometry and probability; collect and analyze data
- Develop concepts of integers, variables, equations, and inequalities

Middle School Math Course 2

Course #3111E

- ✓ Grade 7 SOL test
- Use proportional reasoning to solve practical and consumer problems
- Investigate geometry, probability, data analysis, linear equation, and inequalities
- Use patterns, estimation, and simple algebraic techniques to solve problems

Middle School Math Course 3

Course #3112E

- ✓ Grade 8 SOL test
- Apply Pythagorean Theorem and transformations to geometric figures
- Analyze and represent relations and functions using tables, graphs, and rules
- Solve and graph multi-step linear equations

MIDDLE SCHOOL SCIENCE

Introduction to Earth and Environmental Science (6)

Course #4105E

- Emphasize experimental design and the scientific method
- Explore fundamental concepts in meteorology, ecology, astronomy, and natural resources management
- Emphasize energy sources and their relationships to the natural world

Life Science (7)

Course #4115E

- Explore cellular organization and the classification of organisms
- Explore the relationships among organisms, populations, communities, and ecosystems
- Examine the change that results from the transmission of genetic information from generation to generation

Physical Science (8)

Course #4125E

- ✓ SOL Cumulative Grade 8 science test
- Build on skills of systematic investigation emphasizing sources of error and data based conclusions
- Understand the relationship between graphs and what is occurring in an experiment
- Focus on introductory concepts in chemistry and physics

MIDDLE SCHOOL SOCIAL STUDIES

Social Studies 6

Course #2354E

- ✓ SOL United States History I test
- Focus on the history of the United States from Pre-Columbian times until 1865
- Study documents and events that lay the foundation of American ideals and institutions
- Learn fundamental concepts in civics, economics and geography

Social Studies 7

Course #2355E

- ✓ SOL United States History II test
- Focus on American history from 1865 to the present
- Learn the concepts of economics, geography, and due process of law
- Use reference sources to interpret graphs, charts, and maps

Social Studies 8: Civics and Economics

Course #2220E

- ✓ SOL Civics and Economics test
- Study the U. S. and Virginia Constitutions and government at the national, state, and local levels
- Learn the basic principles, structure, and operation of the American economy
- Learn the electoral process

MIDDLE SCHOOL FUNCTIONAL ACADEMIC COURSE OFFERINGS, 6-8

Functional English for Middle School Students

Course #7801

- students with intellectual disabilities*
- Develop spelling, vocabulary, grammar, reading, and written and oral expression

Functional Math for Middle School Students

Course #7802

students with intellectual disabilities

- Apply basic mathematical concepts and vocabulary, including using whole numbers fractions, decimals, and percentages

Functional Social Studies for Middle School Students

Course #7803

students with intellectual disabilities

- Develop fundamental understanding of society, cultures and systems as adapted from the middle school social studies curriculum

Functional Science for Middle School Students

Course #7804

students with intellectual disabilities

- Develop fundamental understanding of scientific processes and concepts as adapted from the middle school science curriculum

Functional Reading for Middle School Students

Course #7805

students with intellectual disabilities

- Develop reading skills in the areas of fluency, decoding and comprehension to be utilized across content areas and functional applications

Middle School Vocational Preparation

Course #7896

students with intellectual disabilities

- Acquire skills to become a contributing member of the community
- Develop skills for employment through vocational training in supervised school-based work settings

Middle School Daily Living Skills

Course #7895

Middle schools; students with intellectual disabilities

- Function independently at home and in the community
- Learn to care for personal needs, clothing, the household, and to prepare nutritious meals
- Develop independent mobility within the community

Leisure/Recreation

Course #7806

36 weeks (0 cr.)

Middle schools

- Engage in age-appropriate recreation and leisure activities
- Participate in individualized and group competitive and noncompetitive games and leisure activities

MIDDLE SCHOOL EXCEPTIONAL EDUCATION ELECTIVES**Social Skills***Course #7816*

- Learn, apply, generalize, and maintain social skills across multiple contexts and environments
- Receive direct instruction, modeling, coaching and reinforcement in identified areas of need to improve interpersonal relationship skills, and peer interactions

Learning Strategies*Course #7926*

- Develop learning strategies
- Develop skills such as test taking, note-taking, proofreading, time management, and memory association

Middle School Personal Development*Course #7894*

- Develop skills in the areas of decision making/problem solving, conflict resolution, character development and stress management
- Develop interpersonal and intrapersonal relations
- Enrollment in this course is based on IEP team determination

HIGH SCHOOL EXCEPTIONAL EDUCATION COURSES, AS DICTATED BY IEP TEAM SERVICE DESCRIPTIONS**ENGLISH****English 9, Adapted Curriculum***Course #1161**36 weeks (1 cr.); IEP required*

- Increase vocabulary, grammar and spelling skills
- Strengthen oral and written language
- Obtain help with reading disabilities

English 10, Adapted Curriculum*Course #1162**36 weeks (1 cr.); IEP required*

- Develop writing skills
- Refine grammar usage and reading skills
- Write simple sentences and paragraphs for use in everyday communication

English 11, Adapted Curriculum*Course #1163**36 weeks (1 cr.); IEP required*

- Build on the skills already acquired
- Refine grammar, oral and written language, and vocabulary and spelling skills
- Apply skills for future employment and leisure

English 12, Adapted Curriculum*Course #1164**36 weeks (1 cr.); IEP required*

- Refine language and communication skills needed in everyday life
- Apply vocabulary and spelling skills to complete applications and other forms
- Learn to read for information using dictionaries, reference materials, and newspapers

MATH**Algebra I, 2-yr Sequence, Part I***Course #3131**36 weeks (1 cr.); elective; IEP required*

- One half of the curriculum (Course #3130) is presented in one year for a full credit
- Continue the development of proportional reasoning, the concepts of variables and functions, equality, and inequality with equations and operations with equations
- Apply algebraic concepts and processes to the real world

Algebra I, 2-yr Sequence, Part II*Course #3132**36 weeks (1 cr.); elective; IEP required*

- ✓ SOL Algebra I end-of-course test
- One half of the curriculum (Course #3130) is presented in one year for a full credit
- Operate on expressions, equations and inequalities
- Graph and solve linear and quadratic functions

Geometry, 2-yr Sequence, Part I*Course #3144**36 weeks (1 cr.); elective; IEP required*

- One half of the curriculum (Course #3143) is presented in one year for a full credit
- Represent problem situations with geometric models
- Use inductive and deductive reasoning from given assumptions

Geometry, 2-yr Sequence, Part II*Course #3145**36 weeks (1 cr.); elective; IEP required*

- ✓ SOL Geometry end-of-course test
- One half of the curriculum (Course #3143) is presented in one year for a full credit
- Classify figures in terms of congruence and similarity
- Use transformations to identify congruent figures

Personal Living and Finance*Course #3120*

36 weeks (1 cr.); IEP required; Can be used as a math elective for students in exceptional education earning a standard diploma; Can be used as a math required course for a student in exceptional education earning a modified standard diploma

- Learn banking concepts, including managing checking and savings accounts, and budgeting skills
- Consider factors in establishing credit and acquiring loans for automobiles and mortgages
- Understand state and federal tax computations

Math 9, Adapted Curriculum*Course #3199**36 weeks (1 cr.); IEP required*

- Develop computational skills needed in everyday living
- Apply concepts related to money, measurements, and budgeting

Math 10, Adapted Curriculum*Course #3200**36 weeks (1 cr.); IEP required*

- Relate mathematics to the environment through activities, investigation, and projects
- Reinforce money values, usage, and the concept of time
- Apply computational skills to banking, measurement, buying, and budgeting

Math 11, Adapted Curriculum*Course #3201**36 weeks (1 cr.); IEP required*

- Apply computational skills to everyday situations
- Use whole numbers, fractions, decimals, percents, tables, and measurement in recipes, spending and earning money, traveling, working, and buying insurance

Math 12, Adapted Curriculum*Course #3202**36 weeks (1 cr.); IEP required*

- Apply computational skills to making consumer decisions
- Learn concepts related to earning money, buying food, shopping, budgeting, banking and investing, and paying taxes

Consumer Economics, High School*Course #7889**36 weeks (1 cr.); IEP required*

- Explore consumer skills
- Learn concepts of banking and credit
- Study legal protections and responsibilities of consumers

EXCEPTIONAL EDUCATION

SCIENCE

Earth Science I, Part I

Course #4200

36 weeks (1 cr.); elective; IEP required

- One half of the curriculum (Course #4210) is presented in one year for a full credit
- Connect the study of Earth's composition, structure, processes, and history; atmosphere, freshwater, and oceans; and its environment in space
- Interpret maps, charts, tables, and profiles

Earth Science I, Part II

Course #4201

36 weeks (1 cr.); elective; IEP required

- ✓ SOL Earth Science end-of-course test
- One half of the curriculum (Course #4210) is presented in one year for a full credit
- Integrate technology in collecting, analyzing, and reporting data
- Explore plate tectonics, rock cycle, Earth's history, oceans, atmosphere, weather, climate, solar systems, and the universe

Biology I, 2-yr Sequence, Part I

Course #4300

36 weeks (1 cr.); elective; IEP required

- One half of the curriculum (Course #4310) is presented in one year for a full credit
- Understand living systems
- Integrate scientific technology in collecting, analyzing, and reporting data

Biology I, 2-yr Sequence, Part II

Course #4301

36 weeks (1 cr.); elective; IEP required

- ✓ SOL Biology end-of-course test
- One half of the curriculum (Course #4310) is presented in one year for a full credit
- Emphasize the importance of research that validates or challenges ideas
- Explore the history of biological thought and the evidence that supports it, biochemical life processes, cellular organization, mechanisms of inheritance, dynamic relationships among organisms, and changes in organisms

Environmental Science I

Course #4313

36 weeks (1 cr.); IEP required

- Develop thinking and inquiry skills
- Study microbes as causes of diseases
- Study ecosystems and interdependence of organisms within the environment

Environmental Science II

Course #7907

36 weeks (1 cr.); IEP required

- Examine the interdependence of people and their environment, and apply these concepts in everyday life situations
- Study units on energy for a balanced diet in addition to the units introduced in Environmental Science I
- Focus on daily living skills: personal hygiene, clothing care, safety, and meal planning

SOCIAL STUDIES

Virginia and United States History, 2-yr Sequence, Part I

Course #2361

36 weeks (1 cr.); elective; IEP required

- One half of the curriculum (Course #2360) is presented in one year for a full credit
- Study the contributions of minority groups
- Learn the political, economic, social, and cultural development of the United States from colonization to the present

Virginia and United States History, 2-yr Sequence, Part II

Course #2362

36 weeks (1 cr.); elective; IEP required

- ✓ SOL U.S. and Virginia History end-of-course test
- One half of the curriculum (Course #2360) is presented in one year for a full credit
- Learn the political, economic, social, and cultural development of the United States from colonization to the present time
- Appreciate our heritage

Virginia and United States History, Adapted Curriculum

Course #7890

36 weeks (1 cr.); IEP required

- Study early explorers, colonists, and the American Revolution
- Explore the growth of government, democracy, and the development of territories in the United States
- Study the Civil War, rise of industry, influx of immigrants, 20th century wars, modern cities, and America's place in the world

Virginia and United States Government

Course #7891

36 weeks (1 cr.); IEP required

- Focus on the foundation, operation, and interrelationships of federal, state, and local governments
- Determine the rights and responsibilities of citizens
- Study the U. S. Constitution and the branches of federal government

FUNCTIONAL ACADEMIC COURSE OFFERINGS, HIGH SCHOOL LEVEL

Practical Language Arts, 9-12

Course #7808-#7811

36 weeks (1 cr.); IEP required

- Apply reading recognition skills, oral and written spelling skills, and listening skills for communication in daily living

Practical Mathematics, 9-12

Course #7812-#7815

36 weeks (1 cr.); IEP required

- Learn arithmetical operations through individual instruction
- Focus on money measurement and finance skills to function independently and skillfully in the community
- Develop application of skills in real life situations

Basic Life Skills, 9-12

Course #7896

36 weeks (1 cr.); IEP required; may be repeated for credit

- Develop preparation for employment
- Develop interpersonal skills, apply functional academic skills, follow directions, work independently, practice self-advocacy, and explore other community living skills

Daily Living Skills, 9-12

Course #7899

36 weeks (1 cr.); IEP required

- Function independently at home and in the community
- Care for personal needs including clothing, the household, and nutritious meals
- Develop independent mobility and functional use of community facilities

Leisure/Recreation

Course #7807

36 weeks (1 cr.); IEP required; may be repeated for credit

- Engage in age-appropriate recreation and leisure activities
- Participate in individualized and group competitive and noncompetitive games and leisure activities

Vocational Emphasis I, High School, Non-Competitive Employment Preparation

Course #7897

36 weeks (1 cr.); IEP required

- Examine the differences between going to school and going to work, the reasons for working, and pride in individual abilities
- Learn procedures in seeking employment, applying for a job, and keeping the job
- Examine unemployment, paychecks, wages, deductions, and other job-related concepts

Vocational Emphasis II, High School, Non-Competitive Employment Preparation

Course #7898

36 weeks (1 cr.); IEP required

- Improve interpersonal relationships
- Explore physical, mental, and emotional growth processes; family and peer relationships and pressures
- Determine personal responsibilities in the role of worker, citizen, family member, and future parent

Preparation for Employment, Competitive Employment Preparation

Course #7999

36 weeks (1 cr.); IEP required

- Explore jobs that exist in the community
- Develop the personal qualities for securing and maintaining a job

HIGH SCHOOL EXCEPTIONAL EDUCATION ELECTIVES

Reading Strategies, High School

Course #1181; 9th and 10th grade, #1182; 11th and 12th grade

18 weeks (.5 cr.); elective

36 weeks (1 cr.); elective; may be repeated for credit

- Apply learned skills to subject area reading
- Read for pleasure
- Develop word attack, vocabulary building, comprehension, fluency and study skills

Personal Development I, 9-10

Course #7892

18 weeks (.5 cr.); elective

36 weeks (1 cr.); elective

- Learn study skills, time management, and communication skills
- Focus on decision making/problem solving, values clarification, goal setting, stress management, and career awareness
- Facilitate implementation of the Individualized Education Plan

Personal Development II, 11-12

Course #7893

18 weeks (.5 cr.); elective

36 weeks (1 cr.); elective

- Apply social and study skills
- Explore stress management, decision making/problem solving, career exploration, and family/ financial planning
- Develop interpersonal and intrapersonal relations

Cooperative Work Experience Program CO-WEP I

Course #9084

36 weeks (1 cr. for work experience, 1 cr. for classroom experience); elective

- Gain entry-level skills for employment
- Develop work competencies through career exploration, decision making, and preparation for employment in a combination of classroom instruction and work experiences
- Participate in work experiences within the school that are planned, supervised, and evaluated by the CO-WEP teacher/coordinator

Cooperative Work Experience Program CO-WEP II, ages 16 and older

Course #9085

36 weeks (1 cr. classroom, 1 cr. work experience); elective

- Examine employment regulations, employee-employer expectations, and on-the-job attitudes expected by the employer
- Complete classroom instruction and complete supervised on-the-job training
- Participate in work experiences within the community that are supervised and evaluated by the CO-WEP teacher/coordinator

EXPLORATORY COURSES – MIDDLE SCHOOLS

General Exploratory—Grade 6

Course #9760, 9761, 9762, 9763

General Exploratory—Grade 7

Course #9750, 9751, 9752, 9753

General Exploratory—Grade 8

Course #9770, 9771, 9772, 9773

Courses vary in length, content, and location, depending upon the individual needs within a given school. The purpose of these courses is to help students.

- Gather information to select courses for Grades 9-12
- Use hands-on activities to explore career fields
- Explore interests and talents in various areas that comprise the arts and sciences

FAMILY AND CONSUMER SCIENCES

Teen Living 6 (FACS Exploratory I)

Course #8206

9 weeks; elective

Middle schools

- Identify roles and responsibilities of family members
- Practice positive behaviors for self, family, and friends
- Complete a simple sewing project and a variety of healthy snack activities

Teen Living 7 (FACS Exploratory II)

Course #8263

18 weeks; elective

Middle schools

- Explore individual skills and interests in nutrition, clothing, and relationships
- Describe responsible behavior in caring for children
- Plan and implement a teen project or event using the planning process

Independent Living

Course #8219

36 weeks (1 cr.); elective

Middle/high schools

- Create strategies for individual and family financial security
- Identify and evaluate issues of consumer choice
- Develop decision-making skills in the areas of housing, nutrition, and clothing

Life Planning

Course #8227

36 weeks (1 cr.); elective

High schools

- Develop a life management plan in the areas of finances, career, and community
- Apply the problem solving process to personal, family, and consumer issues
- Plan and prepare food choices that meet the health needs of the family

Relationships (Family Relations)

Course #8225

36 weeks (1 cr.); elective

Course #8223

18 weeks (.5 cr.); elective

High schools

- Maintain healthy relationships through effective communication
- Balance family & work roles through positive stress and conflict management
- Nurture human development in the family and evaluate parenting responsibilities

Nutrition and Wellness

Course #8229

36 weeks (1 cr.); elective

Course #8228

18 weeks (.5 cr.); elective

High schools

- Determine influences on food choices
- Analyze foods that promote wellness
- Practice proper food preparation and storage techniques

Creative Fashion (Intro to Fashion Careers)

Course #8248

36 weeks (1 cr.); elective

Course #8247

18 weeks (.5 cr.); elective

High schools

- Evaluate personal clothing decisions
- Explore the fashion design, manufacturing, and marketing process
- Complete a design project

Introduction to Interior Design

Course #8254

18 weeks (.5 cr.); elective

High schools

- Investigate influences on environment and design of interior spaces
- Explore careers in interior design, construction, and real estate
- Develop a design project

Child Development and Parenting

Course #8231

18 weeks (.5 cr.); elective

Course #8232

36 weeks (1 cr.); elective

High schools

- Analyze developmental needs of children
- Prepare for healthy parent/child relationships
- Develop effective methods of guidance and discipline

Introduction to Virginia Teachers for Tomorrow, Grade 8 or 9

Course #9061

36 weeks

Middle/High schools

- Explore careers in teaching and education
- Build positive learning environments through simulated teaching
- Introduces students to the high school Virginia Teachers for Tomorrow program

Early Childhood Education and Services I

Course #8285

36 weeks (3 cr.); elective

For students with a great deal of interest in working with young children;

ACE Center at Highland Springs

- Prepare for entry-level jobs in child care professions
- Study the developmental stages of the young child
- Work daily with children ages 2-5 years at Springer Preschool Academy

Early Childhood Education and Services II

Course #8286

36 weeks (3 cr.); elective

ACE Center at Highland Springs

- Extend objectives in Early Childhood Education and Services I (above)
- Learn occupational skills for workers in child care professions
- Plan and implement lesson plans in preschool classroom at Springer Preschool Academy

Introduction to Culinary Arts

Course #8250

36 weeks (1 cr.); elective

High schools

- Explore culinary arts and related careers
- Investigate dietetics, nutrition, food preparation techniques, and food safety
- Identify contemporary cuisines and service styles

Culinary Arts I

Course #8275

36 weeks (3 cr.); elective

ACE Center at Hermitage, The Academy at Virginia Randolph

Course #8275

36 weeks (2 cr.); elective

Henrico H.S.; Highland Springs H.S.

- Prepare for entry level jobs in the food service industry
- Learn basic industry accepted culinary and catering skills
- Acquire personal and business skills through business and community activities

Culinary Arts II

Course #8276

36 weeks (3 cr.); elective

ACE Center at Hermitage, The Academy at Virginia Randolph

Course #8276

- Build on knowledge gained in Culinary Arts I
- Expand occupational skills for a broad range of food service professions
- Participate in cooperative and simulated work experiences

Virginia Teachers for Tomorrow I Honors

Course #9062

36 weeks (1 cr.); elective

High schools

- Explore hands-on learning, teaching, and the educational system
 - Complete observations and a teaching internship in local schools
 - Must submit application, three teacher recommendations
- Suggested 3.0 GPA

Virginia Teachers for Tomorrow II Honors

Course #9072

36 weeks (1 cr.); elective; Successful completion of Level I and teacher approval required for enrollment

High schools

- Build on knowledge and experience gained in Virginia Teachers for Tomorrow I
- Complete an extensive internship in a local school

GIFTED EDUCATION**21st Century Inquiry and Leadership**

Course #9840

36 weeks (1 cr.); 8th grade

Course #9840A

18 weeks (no credit*); 7th grade

*credit to be awarded with completion of 9840B in 8th grade

Course #9840B

18 weeks (1 cr.); 8th grade

Elective; only for identified gifted students

- Enhance 21st Century skills through multi-disciplinary experiences with in-depth learning or accelerated study outside the traditional curriculum
- Explore and evaluate learning through communication, inquiry, leadership, critical thinking, problem solving, and independent study

HEALTH AND MEDICAL SCIENCES**Pharmacy Technician**

Course #8305

18 weeks (1.5 cr.); elective

Course #8306

18 weeks (1.5 cr.); elective (must successfully complete #8305) Must pass both semesters to be considered a completer.

ACE Center at Highland Springs

- Obtain a broad knowledge of pharmacy practice
- Learn to assist and support licensed pharmacists
- Learn techniques to order, stock, package, prepare and dispense meds

Veterinary Assistant I

Course #8310

36 weeks (3 cr.); elective

ACE Center at Hermitage

- Learn small animal health care
- Understand disease prevention and pet first aid
- Learn to assist a veterinarian with routine exams

Veterinary Assistant II

Course #8311

36 weeks (3 cr.); elective

ACE Center at Hermitage

Prerequisite - Successful completion of Veterinary Assistant I required.

- Learn to assist with large animals, exotics, and wildlife
- Develop skills to assist with surgical procedures

Emergency Medical Technician

Course #8333

18 weeks (1.5 cr.); elective

Course #8334

18 weeks (1.5 cr.); elective (must successfully complete #8333)

Must be at least 16 years old; must pass both semesters to be considered a completer. Completers may be eligible for the National Emergency Medical Technician (EMT) and/or Emergency Medical Responder (EMR) certification exam.

ACE Center at Hermitage

- Develop skills to provide basic emergency medical care
- Learn to assess an individual's condition to determine appropriate emergency care

Nurse Aide

Course #8360

18 weeks (1.5 cr.); elective

Course #8362

18 weeks (1.5 cr.); elective (must successfully complete #8360) Must pass both semesters to be considered a completer. Completers are eligible for state certification exam.

ACE Center at Hermitage; ACE Center at Highland Springs; The Academy at Virginia Randolph

- Study medical terminology, disease, infection control, and basic nursing skills
- Provide nursing care to clients in long term care facilities

Practical Nursing I and II

Course #8357

18 weeks (1.5 cr.); elective

Course #8358

18 weeks (1.5 cr.); elective (must successfully complete #8357)

Seniors only

ACE Center at Hermitage; ACE Center at Highland Springs

This program is approved by the Virginia Board of Nursing, certified to operate by the State Council of Higher Education for Virginia (SCHEV) and is accredited by the Accreditation Commission of Education in Nursing (ACEN).

- Apply anatomy and physiology, fundamentals, nutrition, geriatrics, pharmacology, and medical-surgical nursing
- Practice nursing care under the direct supervision of a registered nurse or physician licensed by the Virginia Department of Health Professions
- Progress to the full-time, nine-month Practical Nursing II phase

Practical Nursing III

Course #8359

34 weeks; (must successfully complete #8357 and #8358) hospital and nursing home; graduates are eligible for national licensing exam

This program is approved by the Virginia Board of Nursing, certified to operate by the State Council of Higher Education for Virginia (SCHEV) and is accredited by the Accreditation Commission for Education in Nursing (ACEN).

- Experience in medical-surgical, mental health, pediatrics, mother/infant, and community
- Provide nursing care to patients in acute care settings with direct supervision

Sports Medicine

Course #7660

18 weeks (1.5 cr.); elective

Course #7662

18 weeks (1.5 cr.); elective (must successfully complete #7660)

ACE Center at Hermitage

Must pass both semesters to be considered a completer.

- Develop skills in prevention, recognition, assessment, management, disposition, and rehabilitation of injuries
- Learn the principles of designing exercise programs and proper diet therapy for healthy individuals
- Assess injuries and illnesses, provide care, and design a basic rehab program

HEALTH AND PHYSICAL EDUCATION

Entering Ninth-Grade Class of 2016-2017 and Beyond Training in Emergency First Aid, CPR, and Use of an AED - Beginning with first-time ninth grade students in the 2016-2017 school year, requirements for the standard and advanced diplomas shall include a requirement to be trained in emergency first aid, cardiopulmonary resuscitation, and the use of automated external defibrillators, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation.

Health and Physical Education 6

Course #7110

36 weeks; required

Middle schools

- Learn how communicable diseases, physical and emotional changes and nutrition affect the body
- Demonstrate safety in physical activity settings
- Apply physical fitness concepts to achieve wellness-related fitness

Health and Physical Education 7

Course #7120

36 weeks; required

Middle schools

- Learn about stimulants, depressants, narcotics, hallucinogens, and drug abuse
- Practice conflict resolution and violence prevention skills
- Apply principles of personal fitness for proficiency in the Virginia wellness fitness standards

Health and Physical Education 8

Course #7200

36 weeks; required

Middle schools

- Identify behaviors that promote positive relationships
- Practice conflict resolution and violence prevention skills
- Participate in physical fitness screenings to achieve improvements in Virginia wellness-related fitness

Adapted Health and Physical Education 6, 7, & 8

Course #7205

36 weeks; elective; IEP needed to be eligible

Middle schools

- Participate in health and physical activities adapted to meet individual needs
- Participate in exercises and low organization activities designed to promote wellness
- Focus on physical fitness

Health and Physical Education 9

Course #7300

36 weeks (1 cr.); required

High schools

(Online course may be taken during the summer)

- Analyze food labels to improve sports performance through nutrition
- Identify resources that support those suffering from substance abuse
- Learn about cardiac arrest and CPR

Health and Physical Education 10

Course #7400

36 weeks (1 cr.); required

High schools

(Online course may be taken during the summer)

- Identify how diseases affect the body
- Review major body systems and ways to keep them healthy
- Promote responsible behaviors in activity settings

Advanced Physical Education

Course #7500

18 weeks (.5 cr.); elective

36 weeks (1 cr.); elective

High schools

- Demonstrate mastery of movement skills and patterns in lifetime physical activities
- Explain the importance of energy balance and nutritional needs of the body to maintain optimal health
- Design, implement, and evaluate personal fitness programs

Personal Fitness

Course #7600

18 weeks (.5 cr.); elective

36 weeks (1 cr.); elective

High schools

- Demonstrate mastery of movement skills and patterns used to perform a variety of strength training, physical conditioning, and fitness-based activities
- Describe energy balance, major body systems, and explain the effects of physical activity on the systems
- Create a personal fitness and conditioning program for health-related components of fitness

Adapted Health and Physical Education

Course #7700

36 weeks (1 cr.); elective; IEP needed to be eligible; may be repeated for credit

High schools

- Participate in exercises and low organization games to increase physical activity and motor development
- Participate in health and physical activities to meet individual needs
- Focus on physical fitness and wellness

MARKETING

Cooperative Education is a method of instruction that combines career and technical classroom instruction with paid employment directly related to the classroom instruction. Instruction is developed and conducted in consultation with employers having skills and considerable knowledge of the occupational field represented by the student's career objective. Individualized, written training plans are developed to correlate the classroom instructions with the on-the-job training. Formal and informal evaluations of student progress including feedback are completed to assist learners in improving their work performance. To participate in and earn cooperative education (co-op) credit, a student must combine classroom instruction and a minimum of 396 hours of continuous, supervised on-the-job training. *Course numbers ending with a V indicate a Cooperative Education course.

Advanced Global Marketing and Commerce

Course #8136V

36 weeks (Co-op., 1 cr.); elective

High schools

- Explore careers in international trade, finance, shipping, and marketing
- Blend macro and micro economic theory with international culture and concepts
- Combine classroom instruction with community-based projects

Digital Marketing

Course #8125

36 weeks (1 cr.); elective

High schools

- Learn about the paperless exchange of information using technology
- Understand the technology of web servers, clients, and E-Commerce
- Conduct research projects related to electronic marketing

Entrepreneurship

Course #9093

36 weeks (1 cr.); elective

High schools

- Analyze strategies that are essential to start a successful business
- Develop business, operations, and financial plans
- Develop management skills in employee and customer relations

Fashion Marketing

Course #8140

36 weeks (1 cr.); elective

Course #8140V

36 weeks (Co-op, 1 cr.); elective

High schools

- Develop marketing competencies for employment in fashion merchandising
- Develop marketing competencies applied to the apparel and accessories industries
- Develop competencies unique to fashion merchandising

Fashion Marketing II

Course #8145

36 weeks (1 cr.); elective

Course #8145V

36 weeks (Co-op, 1 cr.); elective

High schools

- Gain knowledge of the apparel and accessories industries
- Develop skills for supervisory employment in the apparel business
- Develop advanced skills applied to the apparel and accessories industry

Hospitality, Tourism and Catering

Course #8139

36 weeks (3 cr.); elective

ACE Center at Highland Springs

- Examine the hospitality and tourism industry, including attractions, lodging, transportation, and food and beverage
- Develop communication, customer service, human relations and industry technology skills
- Plan and facilitate catering events in the local area

Marketing

Course #8120

36 weeks (1 cr.); elective

Course #8120V

36 weeks (Co-op, 1 cr.); elective

- Acquire marketing function knowledge and professional responsibilities
- Develop product/service planning skills related to market positioning
- Develop economics/social competencies related to marketing careers

Marketing II

Course #8130

36 weeks (1 cr.); elective

Course #8130V

36 weeks (Co-op, 1 cr.); elective

High schools

- Acquire knowledge of marketing functions/supervisory responsibilities
- Develop advanced marketing competencies
- Develop economic/social competencies related to supervision of employees

Marketing Management

Course #8132

36 weeks (1 cr.); elective

Course #8132V (Co-op, 1 cr.); elective

High schools

- Learn marketing theory and application foundations for future study
- Acquire knowledge of "new" marketing priorities as identified by employers

Principles of Business and Marketing

Course #6115

36 weeks (1 cr.); elective

Course #6116

18 weeks (.5 cr.); elective

High schools

- Explore the roles of business and marketing in the free enterprise system
- Make decisions as consumers, wage earners, and business owners

Sports and Entertainment Management

Course #8177

36 weeks (1 cr.); elective

Course #8177V

36 weeks (Co-op, 1 cr.); elective

High schools

- Explore ethical and legal issues
- Explore management, research, and market analysis
- Understand event planning, management, and security

Sports and Entertainment Marketing

Course #8175

36 weeks (1 cr.); elective

Course #8175V

36 weeks (Co-op, 1 cr.); elective

High schools

- Identify occupations and analyze trends with the SERM industry
- Develop public relations and publicity programs, and explain sponsorship and endorsement roles in each

Tourism Marketing, Sales, and Catering

Course #8169

36 weeks (3 cr.); elective

ACE Center at Highland Springs

- Gain knowledge of marketing and sales in the travel and tourism field
- Learn about the issues related to business and resource management, tourism's effect on the world economy, the political impact of tourism, and how the sale process affects the tourism industry
- Develop skills in the areas of communication, human relations, finance, sales, promotional plans, and marketing research

MATHEMATICS**College and Career Readiness**

Course #9813

18 weeks (.5 cr.); elective

High schools

- Improve reading, writing and math skills with a focus on college entrance exams
- Explore college application and search processes
- Focus on career education and readiness

Middle School Math Course 1

Course #3110

36 weeks; required

Middle schools

- ✓ Grade 6 SOL test
- Develop understanding and skills with fractions, decimals, and ratios
- Investigate geometry and probability; collect and analyze data
- Develop concepts of integers, variables, equations, and inequalities

Middle School Math Course 2

Course #3111

36 weeks; required

Middle schools

- ✓ Grade 7 SOL test
- Use proportional reasoning to solve practical and consumer problems
- Investigate geometry, probability, data analysis, linear equation, and inequalities
- Use patterns, estimation, and simple algebraic techniques to solve problems

Middle School Math Course 3

Course #3112

36 weeks; elective

Middle schools

- ✓ Grade 8 SOL test
- Apply Pythagorean Theorem and transformations to geometric figures
- Analyze and represent relations and functions using tables, graphs, and rules
- Solve and graph multi-step linear equations

Accelerated Math 6/7

Course #3115

36 weeks (1 cr.)

Middle schools; Grade 6

- ✓ Grade 7 SOL Test
- Investigate geometry, probability, and data analysis
- Use patterns estimation, and simple algebraic techniques to solve problems
- Solve and graph linear equations and inequalities

Math Fundamentals

Course #3123

36 weeks (1 cr.); elective

All students must have the recommendation of the classroom teacher and parental approval due to graduation implications. It is intended for the Tier 2 and Tier 3 students.

- Provide development of topics covered in Math 8 and Algebra I
- Represent problem situations using expressions, equations, and inequalities
- Use mathematical computer software

Algebra Functions and Data Analysis

Course #3134

36 weeks (1 cr.)

High schools

- Investigate and analyze function families and their characteristics
- Collect data and determine the curve of best fit to predict outcomes
- Determine optimal values in problem situations using linear programming

Algebra I

Course #3130

36 weeks (1 cr.)

Middle/high schools

- ✓ SOL Algebra I end-of-course test
- Represent problem situations using expressions, equations, and inequalities
- Graph and solve linear and quadratic functions
- Apply algebraic concepts and processes to the real world

Algebra II

Course #3135

36 weeks (1 cr.)

High schools

- ✓ SOL Algebra II end-of-course test
- Solve linear and quadratics equations, inequalities, and systems of non-linear equations
- Explore functions and their transformations
- Investigate polynomials and radical and rational expressions

Foundations of Algebra

Course #3133

36 weeks (1 cr.); elective; Grade 9

- Provide development of topics covered in Algebra 1
- Apply algebraic concepts and processes to the real world
- Use graphing calculators and computer software

Algebra II Honors

Course #3135

36 weeks (1 cr.)

High schools; High Tech Academy

- ✓ SOL Algebra II end-of-course test
- See Course #3135 above for additional course content
- More rigorous and in-depth investigation of topics
- More practical applications

PSC Geometry

Course #3143

36 weeks (1 cr.)

Middle/High schools

(Course is available online during summer school)

- ✓ SOL Geometry end-of-course test
- Understand the principles of plane, solid, and coordinate geometry
- Investigate and solve problems involving circles and polygons
- Determine congruence and similarity of polygons

PSC Geometry Honors

Course #3143

36 weeks (1 cr.)

High school only

- ✓ SOL Geometry end-of-course test
- See Course #3143 above for additional course content
- More rigorous and in-depth investigation of topics
- More practical applications

Foundations of Geometry

Course #3137

36 weeks (1 cr.); elective; Grades 10-12

- Provide development of topics covered in Geometry
- Apply geometric concepts and processes to the real world
- Use graphing calculators and computer software

Advanced Algebra/Trigonometry

Course #3160
36 weeks (1 cr.)
High schools

- Explore exponential, logarithmic, and polynomial functions
- Solve trigonometric and parametric equations and verify trigonometric identities
- Explore, graph, and apply trigonometric and circular functions

Math Analysis/Trigonometry Honors

Course #3162
36 weeks (1 cr.); for students who plan to major in a math-related field in college
High schools; High Tech Academy

- Explore polynomials, logarithms and exponential functions, and probability
- Solve trigonometric equations and verify trigonometric identities
- Explore, graph, and apply trigonometric and circular functions

Introduction to Calculus

Course #3170
36 weeks (1 cr.); elective
High schools

- Study limits, continuity, differentiation, integration, and applications
- Learn the logic and intuitive reasoning of calculus

AP Calculus AB

Course #3177
36 weeks (1 cr.); elective
High schools; electronic classroom; High Tech Academy

- Study limits, continuity, differentiation, integration, and applications
- Learn the logic and intuitive reasoning of calculus
- Prepare for the AP Calculus AB Exam

AP Calculus BC

Course #3179
36 weeks (1 cr.); elective
High schools; High Tech Academy

- Continue the study of calculus, which includes multi-variable calculus
- Prepare for the AP Calculus BC Exam

Multivariable Calculus Honors

Course #3178
36 weeks (1 cr.); elective
High schools
Multivariable Calculus continues the study of calculus, preparing students for study in science, engineering, and mathematics fields. Students will greatly strengthen and reinforce skills learned in Calculus BC.

- Generalization of derivatives, integrals, and other calculus techniques to 3 dimensions
- Vector field calculus, including Green's Theorem, Stokes' Theorem, and potentials
- Advanced calculus topics and applications to other fields, particularly Physics

Statistics

Course #3190
18 weeks (.5 cr.); elective
High schools

- Use curve fitting to predict from data
- Apply measures of central tendency, variability, and correlation
- Design a statistical experiment and use sampling techniques

AP Statistics

Course #3191
36 weeks (1 cr.); elective
High school, electronic classroom

- Develop statistical and probabilistic reasoning
- Design a statistical experiment and use sampling techniques
- Interpret measures of data and apply methods of inference and correlation

Discrete Topics

Course #3154
18 weeks (.5 cr.); elective
High schools

- Explore existence, enumeration, algorithms and optimization problems
- Investigate graph theory and circuits, apportionment, voting and game theory, and growth of populations and finance
- Use finite graphs, matrices, sequences, and recurrence relationships to solve problems

Computer Mathematics

Course #3184
36 weeks (1 cr.)
High schools
Computer Mathematics may be used in conjunction with Algebra I and Geometry to satisfy mathematics graduation requirements if the student also completes a career and technical concentration.

- Identify fundamental principles and concepts in the field of computer science
- Use strategies to define the problem; develop, refine, and implement a plan; and test and revise the solution
- Apply programming techniques and skills to solve practical problems in mathematics arising from consumer, business, and other applications in mathematics

AP Computer Science

Course #3185
36 weeks (1 cr.); elective

- Understand object-oriented (OO) design (OOD) and OO programming (OOP)
- Learn to code Java in a well-structured fashion and in good style giving attention to clarity of both code and documentation
- Learn to use Java library packages, classes, and interfaces and the Java Collections framework within the scope of the APCS-A Java subset

MILITARY SCIENCE / JROTC

Participation in the Military Science Program does not obligate the student to military service.

Air Force Junior ROTC

Military Science (AFJROTC) I/II/III/IV
Course #7913/#7916/#7918/#7919
36 weeks (1 cr.) each; elective
Deep Run High School

- Participate in courses that focus on citizenship, leadership, and patriotism
- Explore Air Force History, Science of Flight, Exploration of Space, Leadership and Management, Drill and Ceremonies, and Physical Fitness
- Enter military service with advanced rank of E3 (Airman First Class) upon graduation, if desired

Marine Corps Junior ROTC

Military Science (MCJROTC) I/II/III/IV
Course #7913/#7916/#7918/#7919
36 weeks (1 cr.) each; elective
Hermitage High School, Highland Springs High School, J. R. Tucker High School

- Participate in core subjects: leadership tenets; drill and ceremonies; physical fitness and health; weapons training; and military organization, orientation, and history
- Enter military service with advanced rank of E2 (private first class) upon graduation, if desired

Naval Corps Junior ROTC

Military Science (NJROTC) I/II/III/IV
Course #7913/#7916/#7918/#7919
36 weeks (1 cr.) each; elective
Henrico High School, Varina High School

- Participate in courses that focus on leadership, citizenship, and patriotism, and naval courses (e.g., maritime geography, meteorology, electricity and electronics, and military drill)
- Enter military service with advanced rank of E3 (seaman) upon graduation, if desired

MUSIC

Exploratory Music 6

Course #9208
36 weeks or less; elective
Middle schools

- Develop a music vocabulary
- Enjoy music by singing, using instruments, and attending performances

Exploratory Music 7

Course #9211
36 weeks; elective
Middle schools

- Learn musical terms, signs, symbols, and singing harmony
- Expand musical vocabulary

Music History and Literature

Course #9221

36 weeks (1 cr.); elective

High schools

- Explore periods of Western musical heritage and styles
- Learn about composers and musicians throughout history

Advanced Music History and Theory

Course #9222

36 weeks (1 cr.); elective

High schools

- Study composers and their effect on culture
- Examine principles of theory from a historical viewpoint

Music Appreciation

Course #9223 (first semester)

18 weeks (.5 cr.); elective

High schools

- Develop a positive musical attitude through involvement in performances
- Gain a critical awareness of advanced music

Music Appreciation

Course #9224 (second semester)

18 weeks (.5 cr.); elective

High schools

- Develop a positive musical attitude through involvement in performances
- Gain a critical awareness of advanced music

Music Theory

Course #9225

36 weeks (1 cr.); elective

High schools

- Study meter, basic note values and rests, compound and simple time, conducting patterns, time signature, and chord construction

AP Music Theory

Course #9226

36 weeks (1 cr.); elective

High schools; Grades 11 or 12

- Use fundamentals to create an advanced composition
- Learn styles and periods of compositional practice

Middle School Beginning Band

Course #9228

36 weeks; elective

Middle schools

- Learn tone control and quality, proper breathing, major scales, articulation, and tempo
- Participate in musical activities and performances

Middle School Intermediate Band

Course #9230

36 weeks; elective

Middle schools

- Develop tone control and quality, articulation, tempo, and rhythm
- Participate in musical activities and performances

Middle School Advanced Band

Course #9247

36 weeks; elective

Middle schools

- Learn advanced articulations, expressions, interpretations, and balance and blend
- Participate in musical activities and performances

High School Advanced Band

Course #9234

36 weeks (1 cr.); elective; may be repeated for credit

High schools

- Perform a variety of complex meters, rhythmic patterns, free rhythm, and styles from music history
- Participate in musical activities and performances

High School Advanced Band Honors

Course #9235

36 weeks (1 cr.); elective; for students who have high musical ability; admission by audition only; may be repeated for credit

High schools

- Fulfill required project participation that may include music transcription, critical analysis, research, composition, outside ensembles and solo performances
- Participate in musical activities and performances

Marching Band Honors

Course #9232

18 weeks (.5 cr.); elective; may be repeated for credit

High schools

- Perform a variety of complex meters
- Demonstrate marching techniques to execute performances
- Participate in musical activities and performances

High School Instrumental Music

Course #9240

36 weeks (1 cr.); elective; may be repeated for credit

High schools

- Acquire supplemental assistance with primary instrument
- Participate in musical activities and performances

Stage Band

Course #9241

36 weeks (1 cr.); elective; admission by audition only; may be repeated for credit

High schools

- Demonstrate advanced technical proficiency and musical terminology
- Participate in musical activities and performances

Small Instrumental Ensembles

Course #9250

36 weeks (1 cr.); elective; may be repeated for credit

High schools

- Learn orchestral and percussion instruments used in small ensembles
- Participate in musical activities and performances

Beginning Strings

Course #9252

36 weeks; elective; may be repeated for credit

Middle schools (0 cr.)/high schools (1 cr.)

- Learn basic notes, tuning and intonation, rhythmic patterns, and articulations
- Participate in musical activities and performances

Intermediate Strings

Course #9253

36 weeks; elective; may be repeated for credit

Middle schools (0 cr.)/high schools (1 cr.)

- Produce a controlled tone quality and incorporate the expressive elements of phrasing and style
- Participate in musical activities and performances

Advanced Strings

Course #9254

36 weeks; elective; may be repeated for credit

Middle schools (0 cr.)/high schools (1 cr.)

- Demonstrate proper playing position and ability to follow the conductor
- Participate in musical activities and performances

String Orchestra

Course #9251

36 weeks (1 cr.); elective; may be repeated for credit

High schools

- Play all major scales, the chromatic scale, and the melodic minor scale, and three-octave scales
- Participate in musical activities and performances

High School Advanced Orchestra Honors

Course #9257

36 weeks (1 cr.); elective; admission by audition only; may be repeated for credit
High schools

- Fulfill project participation which may include music transcription, critical analysis, research, composition, ensembles and solo performances

Beginning Keyboard I, Piano

Course #9255

18 weeks (.5 cr.); elective; for students with no previous piano experience
High schools

- Learn keyboard fundamentals, including notation, scales, chords, and theory
- Focus on playing

Keyboarding II, Piano

Course #9256 18 weeks (.5 cr.); elective;

for students who have completed Beginning Keyboard I—Piano

High schools

- Build on fundamentals to learn more advanced piano skills
- Study notation, scales, chords, and theory

Middle School Treble Chorus

Course #9260

36 weeks; elective

Middle schools

- Achieve good vocal production and musicianship through three-part choral music
- Participate in musical activities and performances

Middle School Beginning Chorus

Course #9269

36 weeks; elective

Middle schools

- Acquire proper posture and breathing techniques, expressive qualities, and proper diction
- Participate in musical activities and performances

Middle School Intermediate Chorus

Course #9270

36 weeks; elective

Middle schools

- Develop tone quality, intonation, legato singing, and sight singing
- Participate in musical activities and performances

Chorus 7

Course #9271

18 weeks; elective

Middle schools

- Develop ear training, notation, and vocal techniques
- Participate in musical activities and performances

Middle School Advanced Chorus/Selected Choir

Course #9275

36 weeks; elective

Middle schools

- Demonstrate vocal production, emphasizing tone quality and diction
- Participate in musical activities and performances

Middle School Small Vocal Ensemble

Course #9276

36 weeks; elective; for students who have taken a one-year middle school choral ensemble and are recommended by a previous choir director or music teacher
Middle schools

- Learn the fundamentals of independent singing
- Use voice and skill to balance the ensemble

Treble Selected Chorus

Course #9266

36 weeks (1 cr.); elective; may be repeated for credit

High schools

- Expand vocal production and study of dynamics, mood, and tempo, breathing techniques, and phrasing
- Participate in musical activities and performances

Treble Chorus

Course #9267

36 weeks; elective; may be repeated for credit

High schools

- Study terms, symbols, signs, mood, contrast, and tempo
- Participate in musical activities and performances

Small Vocal Ensemble

Course #9278

36 weeks (1 cr.); elective; for advanced students; admission by audition only; may be repeated for credit

High schools

- Study music from the Renaissance period to present day
- Participate in musical activities and performances

Small Vocal Ensemble

Course #9280

36 weeks (1 cr.); elective; for the talented musician who wishes additional vocal training in a “private lesson” (individual or group) arrangement; may be repeated for credit

High schools

- Develop vocal range, flexibility, ear training, and individual musicianship
- Study literature based on vocal problems of students in the class

Mixed Chorus 9

Course #9281

36 weeks (1 cr.); elective; may be repeated for credit

High schools

- Build on 8th-grade mixed chorus study with more literature and more emphasis on performance
- Participate in musical activities and performances

Mixed Chorus

Course #9282

36 weeks (1 cr.); elective; may be repeated for credit

High schools

- Review fundamentals of music, improve vocal quality, and sight singing ability
- Participate in musical activities and performances

Mixed Chorus, Selected Choir

Course #9283

18 weeks (.5 cr.) or 36 weeks (1 cr.); elective; admission by audition only; may be repeated for credit

High schools

- Participate in all-county, all-regional, and all-state choruses
- Participate in musical activities and performances

High School Advanced Choir Honors

Course #9284

36 weeks (1 cr.); elective; admission by audition only; may be repeated for credit

High schools

- Fulfill project participation which may include music transcription, critical analysis, research, composition, outside ensembles and solo performances
- Participate in musical activities and performances

Show Choir

Course #9298

36 weeks (1 cr.); elective; admission by audition only

High schools

- Exhibit knowledge of complex rhythmic patterns, variety of meters, rhythmic accuracy, and choreography
- Participate in musical activities and performances

READING**Teens Read!**

Grade 6, Course #1106 (required)

Grade 7, Course #1107 (enrichment)

Grade 8, Course #1108 (enrichment)

- Learn and apply 6 strategies of comprehension to a variety of texts
- Prepare to be teen readers in the 21st century through a variety of technologies
- Participate in projects, activities, and community events to build capacity as life-long readers

Strategies for Comprehension Success

Course #1186

Middle Schools

18 weeks or 36 weeks; elective

Course #1187

High Schools

18 weeks (.5 cr.); or 36 weeks (1 cr.); elective; may be repeated for credit

- Sharpen critical reading skills and improve the overall level of achievement through individual tasks
- Acquire tools for self-directed reading comprehension tasks
- Use resources to expand word attack, vocabulary building, and comprehension skills

Reading Enrichment Advanced

Course #1180

18 weeks (.5 cr.); elective

36 weeks (1 cr.); elective

(For the student who is reading on or above grade level)

High schools

- Expand vocabulary, comprehension, and study skills
- Sharpen critical reading skills
- Develop rate of comprehension

Secondary Reading and Writing Across the Curriculum

Course #1167

18 weeks (.5 cr.); elective

High schools

- Apply strategic reading and writing skills across the contents
- Expand knowledge of vocabulary
- Develop critical thinking, reading, and test-taking skills

SCIENCE

Introduction to Earth and Environmental Science

Course #4105

36 weeks; required

Middle schools

- Emphasize experimental design and the scientific method
- Explore fundamental concepts in meteorology, ecology, astronomy, and natural resources management
- Emphasize energy sources and their relationships to the natural world

Life Science

Course #4115

36 weeks; required

Middle schools

- Explore cellular organization and the classification of organisms
- Explore the relationships among organisms, populations, communities, and ecosystems
- Examine the change that results from the transmission of genetic information from generation to generation

Advanced Life Science

Course #4115

36 weeks; required

Middle schools

- See Course #4115 above for additional course content
- Develop inquiry skills by designing and executing inquiry labs
- Complete a long-term, independent, science project

Physical Science 8

Course #4125

36 weeks; required

Middle schools

- ✓ SOL Cumulative Grade 8 science test
- Build on skills of systematic investigation emphasizing sources of error and data based conclusions
- Understand the relationship between graphs and what is occurring in an experiment
- Focus on introductory concepts in chemistry and physics

Advanced Physical Science

Course #4125

36 weeks; required

Middle schools

- ✓ SOL Cumulative Grade 8 science test
- See Course #4125 above for additional course content
- Significant emphasis on mathematical equations and their relationship to physical science phenomenon
- Complete a long-term, independent, science project

Earth Science I

Course #4210

36 weeks (1 cr.); elective

High schools; (middle schools for accelerated learners)

- ✓ SOL Earth Science end-of-course test
- Connect the study of Earth's composition, processes, atmosphere, freshwater, oceans, and its environment in space
- Emphasize historical contributions of scientific thought about the Earth and space
- Interpret maps, charts, tables, and profiles

Earth Science Honors

Course #4210

36 weeks (1 cr.); elective

High schools

- ✓ SOL Earth Science end-of-course test
- See course #4210 above for course content
- Extract key information from scientific publications and analyze/interpret real-time data from various sources
- Complete a long-term, independent, science project

Earth Science II: Oceanography

Course # 4250

36 weeks (1 cr.); elective

High schools

- Investigate contemporary issues of global warming, resources management, pollution and the interrelationship between the ocean environment and the human population
- Topics include history of oceanography, plate tectonics, ocean chemistry and physics, weather and climate, waves, tides, currents, marine ecosystems and life

Biology I

Course #4310

36 weeks (1 cr.); elective

High schools

- ✓ SOL Biology end-of-course test
- Emphasize the importance of research that validates and or challenges ideas
- Integrate technology in collecting, analyzing, and reporting data
- Topics include history of biological thought, biochemical life processes, cellular organization, mechanisms of inheritance, dynamic relationships among organisms, and changes in organisms

Biology I Honors

Course #4310

36 weeks (1 cr.); elective

High schools

- ✓ SOL Biology end-of-course test
- See Course #4310 above for additional course content
- Conduct a long-term independent research investigation
- Study advanced biology content in preparation for AP Biology

Biology II, Advanced Survey of Biology Topics

Course #4320

36 weeks (1 cr.); elective

High schools

- ✓ SOL Biology end-of-course test (unless previously passed)
- Examine topics in anatomy and ecology
- Explore contemporary topics in biology relating to science and society

AP Biology

Course #4370

36 weeks (1 cr.); elective

High schools

- ✓ SOL Biology end-of-course test (unless previously passed)
- Must have successfully completed Biology I and have completed or be concurrently enrolled in Chemistry I or equivalent courses
- Complete course content typical to college freshman in general biology
- Prepare for the Advanced Placement Biology examination

Chemistry I*Course #4410**36 weeks (1 cr.); elective**High schools; Grades 10-12*

- ✓ SOL Chemistry end-of-course test
- Conduct experimental and analytical laboratory investigations
- Topics include reaction rate, thermodynamics, redox reactions, stoichiometry, kinetic molecular theory, gas laws, atomic structure, periodicity, bonding, colligative properties, and equilibrium

Chemistry I Honors*Course #4410**36 weeks (1 cr.); elective**High schools; Grades 10-12*

- ✓ SOL Chemistry end-of-course test
- See Course #4410 above for additional course content
- Conduct a long-term independent research investigation
- Study advanced chemistry content in preparation for AP Chemistry

AP Chemistry*Course #4470**36 weeks (1 cr.); elective**High schools; High Tech Academy*

- ✓ SOL Chemistry end-of-course test (unless previously passed)
- Must have successfully completed Chemistry I or its equivalent
- Complete course content that is typical to freshman in general chemistry
- Prepare for the Advanced Placement Chemistry exam

Current Topics in Biology*Course #4500**18 weeks (.5 cr.); elective**High schools*

- Engage in study of biology topics as they relate to current events studied
- Develop Internet research skills
- Interpret charts, diagrams, and graphs
- Conduct experiments

Conceptual Physics*Course #4511**36 weeks (1 cr.); elective**High schools; Grades 9-12*

- Recommended for students who struggle with mathematical concepts and are not ready for Chemistry I or Physics I
- Study force, motion, kinetic molecular theory, energy transformations, wave phenomena and electromagnetic spectrum, light, electricity, fields and non-Newtonian physics
- Apply physics to everyday situations

Physics I*Course #4510**36 weeks (1 cr.); elective**High schools; Grades 10-12*

- Use algebra, inferential statistics, and trigonometry to understand and solve physics problems
- Study force and motion, kinetic molecular theory, energy transformations, wave phenomena and electromagnetic spectrum, light, electricity, fields, and non-Newtonian physics

AP Physics I*Course #4573**36 weeks (1 cr.); elective**High schools; Grades 10-12*

- Study Newtonian mechanics (including rotational dynamics and angular momentum); work, energy and power; mechanical waves and sound; and electric circuits
- Prepare for the Advanced Placement Physics I exam

AP Physics II*Course #4574**36 weeks (1 cr.); elective**High schools; Grades 10-12*

- Study fluid mechanics; thermodynamics; electricity and magnetism; optics; atomic and nuclear physics
- Prepare for the Advanced Placement Physics II exam

AP Physics C: Mechanics*Course #4571**36 weeks (1 cr.); elective**High schools; Grades 11-12*

- Study kinematics; Newton's laws of motion, work, energy, and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation
- Prepare for the Advanced Placement Physics C: Mechanics exam

AP Environmental Science*Course #4270**36 weeks (1 cr.); elective**High schools; Grades 9-12*

- ✓ SOL Earth Science end-of-course test (unless previously passed)
- Complete course content identical to a typical one-semester college introductory environmental science course
- Prepare for the Advanced Placement Environmental Science exam

Meteorology*Course #4621 (offered first semester)**18 weeks (.5 cr.); elective**High schools*

- Increase knowledge of atmospheric science through the use of a real-time weather database and satellite technology
- Analyze, forecast, and track existing synoptic weather conditions, and examine the elements of weather forecasting
- Investigate contemporary issues of acid rain, ozone depletion, and greenhouse effect

Exploration of the Universe*Course #4622 (offered second semester)**18 weeks (.5 cr.); elective**High schools*

- Use information from interplanetary exploration to focus on the organization, composition, and distribution of matter in the universe
- Study technological advances and instrumentation involved in space exploration

SOCIAL STUDIES**Social Studies 6***Course #2354**36 weeks; required**Middle schools*

- ✓ SOL United States History I test
- Focus on the history of the United States from Pre-Columbian times until 1865
- Study documents and events that lay the foundation of American ideals and institutions
- Learn fundamental concepts in civics, economics and geography

Social Studies 6/Civics Accelerated*Course #2354**36 weeks; required; designed for 6th grade students with high ability in social studies who plan to take Course #2215 in 8th grade**Middle schools*

- See Courses #2354 above and #2220 below for additional course content
 - Continue focus on 8th Grade Civics
 - Analyze primary and secondary sources
- Authentic Assessments given*

Social Studies 7*Course #2355**36 weeks; required**Middle schools*

- ✓ SOL United States History II test
- Focus on American history from 1865 to the present
- Learn the concepts of economics, geography, and due process of law
- Use reference sources to interpret graphs, charts, and maps

Social Studies 7/Economics Accelerated

Course #2355

36 weeks; required; designed for 7th grade students with high ability in social studies who plan to take Course #2215 in 8th grade Middle schools

- See courses #2355 above and #2220 below for additional course content
 - Continue focus on 8th Grade Economics
 - Analyze primary and secondary sources
- Authentic Assessments given*

Social Studies 8: Civics and Economics

Course #2220

36 weeks; required unless enrolled in Course #2215

Middle schools

- ✓ SOL Civics and Economics test
- Study the U. S. and Virginia Constitutions and government at the national, state, and local levels
- Learn the basic principles, structure, and operation of the American economy
- Learn the electoral process

World History & Geography I

Course #2215

36 weeks (1 cr.); required; offered to 8th-grade students of advanced academic ability who have completed USI, USII, and Civics & Economics

Middle/High schools

- ✓ SOL World History I end-of-course test
- Study the history of people, places, and religions from ancient times to 1500
- Focus on Mesopotamia, ancient Greece and Rome, and the Middle Ages
- Compares African, early American, and Asian contributions to civilization

World History & Geography I Honors

Course #2215

36 weeks (1 cr.)

High schools

- ✓ SOL World History I end-of-course test
- See Course #2215 above for additional course content
- Analyze primary and secondary sources
- Conduct a research project

World History & Geography II

Course #2216

36 weeks (1 cr.)

High schools

- ✓ SOL World History II end-of-course test
- Explore people, places and religions from about 1500 to the present
- Analyze the late Medieval period, Renaissance, and Reformation
- Compare empires in India, China, Japan, sub-Saharan Africa and Central America

World History & Geography II Honors

Course #2216

36 weeks (1 cr.)

High schools

- ✓ SOL World History II end-of-course test
- See Course #2216 above for additional course content
- Analyze primary and secondary sources
- Conduct a research project

Course will be available online during the school year

World Geography

Course #2210

36 weeks (1 cr.)

High schools; For high school students, this course serves as an alternative to World History and Geography I or World History and Geography II as a graduation requirement

- ✓ SOL World Geography end-of-course test
- Work with maps, charts, and current global issues
- Compares world religions and geographic factors impacting society and culture

World Geography Honors

Course #2210

36 weeks (1 cr.)

High schools; For high school students, this course serves as an alternative to World History and Geography I or World History and Geography II as a graduation requirement

- ✓ SOL World Geography end-of-course test
- See Course #2210 above for additional course content
- Includes research and collaborative projects

Virginia and United States History

Course #2360

36 weeks (1 cr.); required

High schools

(Course is available online during summer school)

- ✓ SOL Virginia and United States History end-of-course test
- Study United States political and economic development to present time
- Focus on cultural and societal changes to the present time
- Studies people and events contributing to the history of the United States

Virginia and United States History Honors

Course #2360

36 weeks (1 cr.); required

High schools; Course is available online

- ✓ SOL Virginia and United States History end-of-course test
- See Course #2360 above for additional course content
- Read historical materials critically, weigh evidence, and problem solve
- Use advanced writing skills to analyze readings

Virginia and United States Government

Course #2440

36 weeks (1 cr.); required

High schools

(Course is available online during summer school)

- Study the political nature and political issues of American society
- Focus on constitutionalism and democracy within the United States
- Discuss issues of governmental power and guarantees of civil liberties

Virginia and United States Government Honors

Course #2440

36 weeks (1 cr.); required

High schools

- See Course #2440 above for additional course content
- Apply critical thinking skills to evaluate research, current events, and elections
- Use advanced writing skills to analyze assigned readings

AP Virginia and United States Government

Course #2445

36 weeks (1 cr.); students may substitute this course for Virginia and United States Government

High schools

- Obtain a college-level perspective on politics and government in the United States
- Explore institutions, groups, beliefs, and ideas of American political reality
- Prepare for the Advanced Placement Examination

AP Microeconomics/AP Macroeconomics

Course #2806 (micro)

18 weeks (.5 cr.); elective

Course #2807 (macro)

18 weeks (.5 cr.); elective

Grade 12

- Analyze the principles of economics that apply to an economic system
- Recognize government, business, and individual interaction in the market economy
- Prepare for completion of the AP economics exam

AP Virginia and United States History

Course #2319

36 weeks (1 cr.); elective; students may substitute this course for U. S. History, which is required for graduation

High schools

- ✓ SOL Virginia and United States History end-of-course test
- Read historical material critically, weigh evidence, and arrive at conclusions
- Prepare for the Advanced Placement Examination
- Use advanced writing skills to analyze readings

AP Psychology

Course #2902

36 weeks (1 cr.); elective

High schools

- Perform psychological research
- Study the many facets of psychological behavior and social psychology
- Prepare for the Advanced Placement Psychology Examination

AP Human Geography

Course #2212

36 weeks (1 cr.); elective

- Study human impact on the Earth's resources and environment
- Understand societal roles and relationships and their interdependence with one another
- Examine population trends and cultural patterns

AP World History

Course #2380

36 weeks (1 cr.); elective

High schools

- Study world history from approximately 8,000 B.C. to the present
- Emphasize historical development of Africa, the Americas, Asia, and Europe
- Prepare for the Advanced Placement World History Examination

Regional Studies

Course #2351

36 weeks (1 cr.); elective

Does not meet the World History requirement for graduation

High schools

- Studies The Commonwealth of Independent States, China, the Middle East, Central and Latin America, Africa, and India
- Discuss current world affairs and US relations to these countries and regions

Regional Studies Honors

Course #2351

36 weeks (1 cr.); elective

Does not meet the World History requirement for graduation

High schools

- See Course #2351 above for additional course content
- Obtain a perspective on events of the nonwestern world
- Apply critical thinking skills in evaluating research, news reports, and other data

AP European History

Course #2399

36 weeks (1 cr.); elective

High schools

- Study European politics and economics from the Renaissance to the present
- Work with primary sources from period documents to sculpture and paintings
- Emphasize social, intellectual, and cultural studies

Sociology

Course #2500

36 weeks (1 cr.); elective

High schools

- Study and analyze individual, institutional, and group relationships in society
- Use institutions such as the family, church, school, and government to emphasize the interaction of concepts

Global Economics

Course #2801

36 weeks (1 cr.); elective

High schools

- Study how people and nations use resources to produce, distribute, and consume goods and services
- Study decisions made by individuals and countries in an atmosphere of growing international interdependence

Principles of Leadership Honors

Course #2990

36 weeks (1 cr.); elective

High schools

- Examine the qualities and leadership styles of recognized leaders
- Develop citizens who possess the leadership abilities to meet present and future challenges in a global society

Psychology I

Course #2900

36 weeks (1 cr.); elective

High schools

- Study individual and group behavior, the effect of internal and external stimuli, and the interaction of individuals
- Increase critical thinking and improve communication through demonstrations, experiments, movies, and videotapes

20th Century World History

Course #2387

18 weeks (.5 cr.); elective

36 weeks (1 cr.); elective

High schools

- Analyze current events by learning the 20th century background of these problems
- Discuss topics that include colonialism, war, urban problems, minority groups, and women's liberation

20th Century World History Honors

Course #2387

18 weeks (.5 cr.); elective

36 weeks (1 cr.); elective

High schools

- See Course #2387 above for additional course content
- Participate in simulations and debates
- Obtain an advanced perspective on events, politics and government in the 20th Century

20th Century Virginia and United States History

Course #2388

18 weeks (.5 cr.); elective

36 weeks (1 cr.); elective

High schools

- Focus on major events, trends, movements, ideas and people of the 20th Century as they relate to United States History
- Analyze present-day problems

20th Century Virginia and United States History Honors

Course #2388

36 weeks (1 cr.); elective

High schools

- See Course #2388 above for additional course content
- Obtain a perspective on events, politics and government in the United States
- Apply critical thinking skills in evaluating research, current events, and other data

African-American History

Course #2371

18 weeks (.5 cr.); elective

High schools

- Understand early African society, customs, and contact with Europe and the Americas
- Focus on the history of discrimination and civil rights movements in the US.
- Explore contributions to society by African-American citizens

TECHNOLOGY EDUCATION

Introduction to Technology

Course #8481

9 weeks; elective

Middle schools

- Explore technology and its uses at home, in school, and in recreation
- Study the elements of technology: tools, machines, materials, processes, energy, information, and humans
- Study one of the four areas of technology: construction, transportation, communication, and manufacturing

Inventions and Innovations

Course #8464

9-18 weeks; elective

Middle schools

- Trace the development of technology and inventions
- Construct a model of an early invention
- Discuss products/inventions needed for world-class competition and prepare a report on one of them

Technological Systems/Manufacturing*Course #8462**36 weeks; elective**Middle schools*

- Expand learning through hands-on activities
- Learn about designing systems, constructing models, and combining systems
- Explore occupational areas for technology-oriented careers

Technological Systems*Course #8463**18 weeks; elective**Middle schools*

- Explore technological systems and their impact on humans
- Study production, construction, and transportation with technological systems
- Improve life with biotechnology systems

Career and Technical Occupational Exploration*Course #8469**18 weeks; elective**36 weeks; elective**Middle/High schools*

- Explore career options
- Design/build products per design briefs
- Explore occupational and educational programs for career and technical education

Technology Foundations*Course #8402**18 weeks (.5 cr.); elective**Course #8403**36 weeks (1 cr.); elective**Middle/high schools*

- Acquire knowledge in technological material, energy, and information
- Analyze technological products to learn how and why technology works
- Build and control systems with computers

Technology Transfer*Course #8404**18 weeks (.5 cr.); elective**Course #8405**36 weeks (1 cr.); elective**High schools*

- Apply foundations of technology
- Apply the technological method as a problem-solving process
- Use tools, machines, materials, and process to solve problems

Engineering Explorations I Honors*Course #8450**36 weeks (1 cr.); elective**High schools, High Tech Academy, Center for Engineering*

- Explore engineering careers, history, practices, and concepts
- Apply mathematical and scientific principles to technical problems
- Use a computer to analyze data and mechanical/electrical systems to solve problems

Engineering Studies Honors*Course #8491**36 weeks (1 cr.); elective**High schools, High Tech Academy*

- Work as a member of an engineering team
- Select a team project, such as a model, system, or product, that will creatively solve the engineering problem
- Use communications, graphics, mathematics, and community personnel to solve the team's engineering problem

Communications Systems*Course #8415**36 weeks (1 cr.); elective**High schools*

- Incorporate taking photographs with script and art work
- Study layout and design
- Develop basic technical skills in the areas of drafting, photography, and telecommunications
- Study layout and design

Geospatial Technology*Course #8423**36 weeks (1 cr.); elective**High Schools*

- Study of geographic information systems (GIS), global positioning systems (GPS), remote sensing (RS), digital image processing simulator (DIPS), Automated Cartography (Auto-Carto), Land surveying and Navigation
- Students will explore and analyze the natural and human-made world from local to global
- Students will use various tools, processes, and techniques to create, store, access, manipulate and revise data to solve human challenges

Introduction to Photography (Semester Imaging Technology)*Course #8474**18 weeks (.5 cr.); elective**High schools*

- Identify, operate, and maintain digital equipment and hardware
- Produce images using digital equipment
- Explore careers in image technology

Photography (Imaging Technology)*Course #8455**36 weeks (1 cr.); elective**High schools*

- Produce images using digital equipment
- Correct, enhance, and transform digital images
- Apply design processes in using a variety of presentation techniques for images

Digital Visualization*Course #8459**36 weeks (1 cr.); elective**High schools*

- Gain experience related to computer animation by involving 3D object manipulation, storyboarding, texture mapping, lighting concepts, and environmental geometry
- Produce animations that include projects related to science, engineering, and the entertainment industry
- Develop a portfolio that showcases examples of original student work

Video and Media Technology*Course #8497**36 weeks (1 cr.); elective**High schools*

- Explore the development of broadcasting from early film to present-day television
- Learn the elements of planning and composing video productions
- Operate audio and video mixers and switches

Electronic Systems I*Course #8416**36 weeks (1 cr.); elective**High schools*

- Identify electricity/electronics applications
- Describe static electricity, electromotive force (voltage), and current electricity
- Construct a project using AC and DC circuits

Electronic Systems II*Course #8412**36 weeks (1 cr.); elective**High schools*

- Construct a project to apply theories and laws with electronic components
- Study integrated circuits used in computers, television, and other equipment
- Explore digital electronics and computer interfacing robotics

Energy and Power*Course #8495**18 weeks (.5 cr.); elective**Course #8448**36 weeks (1 cr.); elective**High schools*

- Learn about the applications of power and energy systems and transportation vehicles
- Apply theory to the servicing of common machines and small engines

Production Systems with Metals*Course #8447M**36 weeks (1 cr.); elective**High schools*

- Perform independent study as a learning experience
- Pursue a specialty based on interest
- Produce a major project of advanced design

Production Systems with Woods*Course #8447W**36 weeks (1 cr.); elective**High schools*

- Perform independent study as a learning experience
- Pursue a specialty based on interest
- Produce a major project of advanced design

Materials and Processes Technology with Woods*Course #8433W**36 weeks (1 cr.); elective**High schools*

- Learn safety in the use of tools and equipment
- Use and maintain hand tools and portable power equipment
- Design and build wood products while studying the woodworking industry

Materials and Processes Technology with Metals*Course #8433M**36 weeks (1 cr.); elective**High schools*

- Use hacksaws, chisels, files, drills, and sheet metal machines
- Study sheet metal, welding, and foundry
- Design and build a metal product

Construction Technology*Course #8432**18 weeks (.5 cr.); elective**High schools*

- Explore the construction industry
- Study building drawings, construction materials, and the safe use of tools and procedures used in the building trades
- Participate in the design and construction of a framed wood structure

Manufacturing Systems I*Course #8425**36 weeks (1 cr.); elective**Course #8426**18 weeks (.5 cr.); elective**High schools*

- Gain knowledge of the manufacturing industry through laboratory experiences and related information
- Mass-produce products related to manufacturing technology

Manufacturing Systems II*Course #8427**36 weeks (1 cr.); elective**High schools*

- Continue to expand overall knowledge of Manufacturing Technology
- Study new concepts such as Green Manufacturing and Resource Management in the manufacturing field
- Develop an end-of-year interdisciplinary project

Technical Drawing/Design/CAD*Course #8435**36 weeks (1 cr.); elective**High schools*

- Learn the basic language of industry and technology
- Gain skills in mechanical drawing or drafting
- Prepare technical sketches using orthographic projections, pictorial technical sketches, layout sketches, and prints of original drawings

Engineering Drawing/Design/CAD*Course #8436**36 weeks (1 cr.); elective**High schools*

- Learn the graphic language used by engineers, manufacturers, and technicians
- Interpret industrial prints to use handbooks with resource materials, and to adhere to standards for drafting
- Apply drafting principles to typical engineering drawing and design problems

Architectural Drawing/Design/CAD*Course #8437**36 weeks (1 cr.); elective**High schools*

- Learn principles of architecture and related drafting practices and techniques
- Draw plot, foundation, and house plans
- Develop and draw electrical, heating and air conditioning, and plumbing plans

Advanced Drafting and Design*Course #8438**36 weeks (1 cr.); elective**High schools*

- Develop an independent program of study related to student interest
- Complete research and/or major project related to drafting and design
- Reinforce knowledge of CAD by working in a peer learning environment with other students

Technology of Robotic Design*Course #8421**36 weeks (1 cr.); elective**High schools*

- Students engage in the study of computers and microprocessors and their applications to manufacturing, transportation, and communication systems
- Topics include computer equipment and operating systems, robotics, programming, control systems, and social/cultural impact of these technologies
- Problem-solving activities challenge students to design, program, and interface devices with computer systems

TRADE AND INDUSTRIAL EDUCATION**Air Conditioning, Refrigeration, and Plumbing I***Course #8503**36 weeks (3 cr.); elective**ACE Center at Hermitage*

- Apply the fundamentals of installing and servicing air conditioning, refrigeration, and plumbing systems for both residential and commercial applications
- Use tools and materials required for jobs
- Study refrigeration and basic electricity principles

Air Conditioning, Refrigeration, and Plumbing II*Course #8504**36 weeks (3 cr.); elective**ACE Center at Hermitage*

- Study instruments and controls including trouble shooting of components and systems
- Participate in work experiences during the second semester (if recommended)
- Prepare for HVAC certification

Automotive Technology I*Course #8506**36 weeks (3 cr.); elective**ACE Center at Hermitage, ACE Center at Highland Springs, The Academy at Virginia Randolph*

- Perform shop operations to include safety, tool usage and management of repair facility
- Develop diagnostic skills to be used as entry level technicians
- Learn utilization of all maintenance related tools (coolant trans, power steering, induction, and brake equipment)

Automotive Technology II*Course #8507**36 weeks (3 cr.); elective**ACE Center at Hermitage, ACE Center at Highland Springs, The Academy at Virginia Randolph*

- Perform engine, electrical system repairs and front end alignments
- Prepare for certification in VA State Inspection and A.S.E. tests
- Participate in work experiences during the second semester (February to June)

Masonry I*Course #8512**36 weeks (3 cr.); elective**ACE Center at Highland Springs, The Academy at Virginia Randolph*

- Learn the safe use, handling, and maintenance of tools, machines, equipment, and materials used in the masonry trade
- Learn to lay brick and block to a line and to construct walls and corners
- Participate in the construction of a house (if selected)

Masonry II

Course #8513

36 weeks (3 cr.); elective

ACE Center at Highland Springs, The Academy at Virginia Randolph

- Refine techniques of bricklaying and blocklaying
- Study commercial masonry construction techniques
- Participate in the construction of a house (if selected)

Cosmetology I

Course #8527

36 weeks (3 cr.); elective

ACE Center at Hermitage, ACE Center at Highland Springs

36 weeks (2 cr.); elective

The Academy at Virginia Randolph only

- Practice sanitation, disinfection, and safety
- Acquire work habits and attitudes leading to employment
- Learn procedures to care for hair, skin, and nails

Cosmetology II

Course #8528

18 weeks (1.5 cr.); elective

ACE Center at Hermitage, ACE Center at Highland Springs

36 weeks (2 cr.); elective

The Academy at Virginia Randolph only

- Apply acquired skills from Cosmetology I
- Acquire skills in salon management including developing positive operator-patron relationships
- Perfect procedures to care for hair, skin, and nails

Cosmetology III

Course #8529

18 weeks (1.5 cr.); elective

ACE Center at Hermitage, ACE Center at Highland Springs

36 weeks (2 cr.); elective

The Academy at Virginia Randolph only

- Transfer skills to current style trends
- Acquire skills in salon management including developing positive operator-patron relationships
- Prepare and sit for state licensing examination

Barbering I

Course #8740

36 weeks (3 cr.); elective

ACE Center at Hermitage

- Practice sanitation, disinfection, and safety
- Acquire work habits and attitudes leading to employment
- Learn procedures to care for hair, skin, and nails

Barbering II

Course #8741

18 weeks (1.5 cr.); elective

ACE Center at Hermitage

- Apply acquired skills from Barbering I
- Acquire skills in barber shop/salon management including developing positive operator-patron relationships
- Perfect procedures to care for hair, skin, and nails

Barbering III

Course #8742

18 weeks (1.5 cr.); elective

ACE Center at Hermitage

- Transfer skills to current style trends
- Apply skills in barber shop/salon management including developing positive operator-patron relationships
- Prepare and sit for state licensing examination

CAD - Computer-Aided Drafting/3D

Animation I

Course #8530

36 weeks (3 cr.); elective

ACE Center at Hermitage

- Apply the fundamentals of drafting by producing working drawings
- Use computer-aided drafting (AutoCAD computer systems) for one-half the course
- Learn the basic skills and commands needed to manipulate animated objects in a 3-Dimensional format

CAD - Computer-Aided Drafting/3D

Animation II

Course #8531

36 weeks (3 cr.); elective

ACE Center at Hermitage

- Focus on architectural and engineering drawings
- Gain skills in building construction, mechanical engineering, and residential and commercial architecture
- Participate in work experiences during the second semester (if recommended)

Electricity and Cabling I

Course #8533

36 weeks (3 cr.); elective

ACE Center at Hermitage, ACE Center at Highland Springs, The Academy at Virginia Randolph

- Prepare for entry into electricity-related occupations or post-secondary engineering program
- Learn principles of electricity
- Apply fundamental skills using materials, tools, and techniques required to install, maintain, and repair electrical equipment

Electricity and Cabling II

Course #8534

36 weeks (3 cr.); elective

ACE Center at Hermitage, ACE Center at Highland Springs, The Academy at Virginia Randolph

- Prepare for entry into electricity-related occupations or a post-secondary engineering program
- Study direct and alternating current, industrial electricity, and motors
- Participate in the construction of a house (if selected) or in work experiences during the second semester (optional)

Precision Machining Technology I

Course #8539

36 weeks (3 cr.); elective

ACE Center at Hermitage

- Explore aspects of machine shop technology
- Apply knowledge of blueprint reading, machine theory, technical language, math, and measurement to problems involving machines or machine parts
- Gain experience in use of lathes, milling machines, grinders, saws, drills, CNC (computer numerical control) machines, and welding equipment

Precision Machining Technology II

Course #8540

36 weeks (3 cr.); elective

ACE Center at Hermitage

- Study aspects introduced in Precision Machining Technology I
- Focus on tighter tolerances and improved quality
- Participate in work experiences during the second semester (if recommended)

Industrial Maintenance Repair/Welding I

Course #8575

36 weeks (1-2 cr.); elective

The Academy at Virginia Randolph

- Learn basic plumbing and electrical principles
- Study basic theory and operation of gas and electric welding
- Demonstrate basic skill in metal layout and fabrication techniques and develop basic skills in the welding processes

Industrial Maintenance Repair/Welding II

Course #8576

36 weeks (2-4 cr.); elective

The Academy at Virginia Randolph

- Demonstrate safe use of power and hand tools and high-pressure gases
- Use advanced measuring and fabrication techniques to build various projects

Carpentry I

Course #8601

36 weeks (3 cr.); elective

ACE Center at Highland Springs, The Academy at Virginia Randolph

- Use hand tools and power equipment used in the trade
- Apply knowledge of blueprint reading and interpretation, zoning laws, building codes, and foundation layout
- Participate in the construction of a house

Carpentry II

Course #8602

36 weeks (3 cr.); elective

ACE Center at Highland Springs, The Academy at Virginia Randolph

- Perfect skills learned in Carpentry I
- Learn advanced skills including estimating materials, installing cabinets and finishing trim
- Participate in the construction of a house

Diesel Technologies I

Course # 8613

36 weeks (3 cr.); elective

ACE Center at Hermitage – taught at Central Automotive Maintenance

- Introduces students to the fundamentals of diesel equipment
- Gain experience in the use of hand and power tools related to diesel equipment
- Identify, disassemble, clean, inspect and repair various components in diesel equipment

Diesel Technologies II

Course # 8614

36 weeks (3 cr.); elective

ACE Center at Hermitage – taught at Central Automotive Maintenance

- Study the support systems and heavy truck chassis concepts
- Inspection and repair of brake systems, steering mechanisms, wheel bearings, and other important systems related to heavy equipment
- Participate in work experiences during the second semester (if recommended)

Computer Systems Technology I

Course #8622

36 weeks (3 cr.); elective

ACE Center at Highland Springs

- Develop a foundation of computer hardware and operating systems
- Develop the skills and knowledge to pass the nationally recognized A+ certification exam
- Construct, troubleshoot, service, and repair computer systems, related components, and software

Computer Systems Technology II

Course #8623

36 week (3 cr.); elective

ACE Center at Highland Springs

- Understand career opportunities in the information technology field
- Learn to install and maintain local area networks
- Develop the skills and knowledge to prepare for a career as a Certified Cisco Network Administrator
- Install and configure Cisco routers

Radio Broadcasting & Journalism I

Course #8640

36 weeks (3 cr.); elective

ACE Center at Highland Springs

- Explore materials and equipment used in broadcasting
- Build speech and announcing techniques
- Write materials in format for a live broadcast

Radio Broadcasting & Journalism II

Course #8641

36 weeks (3 cr.); elective

ACE Center at Highland Springs

- Learn operation of radio station equipment
- Develop skills required for disk jockey work, news casting, traffic reports, and sports coverage
- Participate in the operation of WHCE with live, on-air broadcasting

Graphic Communications I

Course #8660

36 weeks (3 cr.); elective

ACE Center at Hermitage, The Academy at Virginia Randolph

- Develop techniques to manage and control production printing using 21st century skills
- Develop skills in digital composition & printing, wide format printing and collating/binding operations and the material used with each
- Learn the difference between Silk Screening, Heat Transfer Vinyl & Vinyl Film and produce graphics with them

Graphic Communications II

Course #8661

36 weeks (3 cr.); elective

ACE Center at Hermitage, The Academy at Virginia Randolph

- Develop techniques to manage and control production printing using 21st century skills
- Increase knowledge in digital composition & printing, wide format printing and collating/binding operations, Heat Transfer Vinyl & Vinyl Film and the material used with each
- Participate in work experiences during the second semester (if recommended)

Auto Body Repair I

Course #8676

36 weeks (3 cr.); elective

ACE Center at Highland Springs, The Academy at Virginia Randolph

- Explore all phases of automobile body repair
- Develop techniques and methods used to repair minor damage to automobiles and trucks
- Use hand tools, power tools, and painting equipment

Auto Body Repair II

Course #8677

36 weeks (3 cr.); elective

ACE Center at Highland Springs, The Academy at Virginia Randolph

- Evaluate damages and complete estimates for repair jobs
- Expand involvement in custom paint jobs
- Participate in work experiences during the second semester (if recommended)

Criminal Justice I

Course #8702

36 weeks (3 cr.); elective

ACE Center at Hermitage, ACE Center at Highland Springs

- Explore the United States criminal justice system major components: law enforcement, judiciary and corrections
- Gain knowledge about the evolution of the American juvenile delinquency system
- Learn from professionals in local, state, federal, and private law enforcement agencies

Criminal Justice II

Course #8703

36 weeks (3 cr.); elective

ACE Center at Hermitage, ACE Center at Highland Springs

- Explore procedures in criminal investigations and crime scene investigation
- Study goals, methods, and techniques of police patrol
- Examine responsibilities of administrators and field supervisors of patrol in the local and state law enforcement agencies

Career Investigation, Phase I

Course #9070

36 weeks (3 cr.); required for PACE students

The Academy at Virginia Randolph

- Develop workplace readiness skills
- Map your career
- Explore multiple technical areas during the year

VIRGINIA RANDOLPH EDUCATION CENTER

Each student's course of study is determined by that individual's IEP (Individualized Education Plan).

The following descriptions include the vocational offerings at Virginia Randolph Education Center which represent only a portion of the curriculum available to students at this center:

Agricultural Education

Course #8053

Length of course varies with the individual student

Elective for students with disabilities who are aged 15 to 21, who have completed school through the middle level, and who show interest and talents in the area of horticulture

- Develop skills/abilities required for employment proficiency in horticulture-related occupations
- Train for competitive employment in greenhouse maintenance, greenhouse production, and grounds maintenance
- Apply concepts of basic plant propagation, with emphasis on greenhouse maintenance and nursery production

Trade and Industrial Education

Course #8627

Length varies with the individual student
Elective for students with mental disabilities who have completed school through the middle level and who show interest or talents in the area of Trade and Industrial Education

- Prepare for entry into janitorial jobs in supported or competitive employment
- Practice working in a simulated building/grounds maintenance environment
- Enter work through part-time jobs on campus and in the community

Education for Employment Co-op I

(EFE Co-op optional)

Course #9085

36 weeks; elective; for students with disabilities who are between the ages of 14 and 22

- Prepare for career paths, occupational opportunities, and continuing education
- Experience school-based and work-based instruction
- May exit WECEP to enter a regular/vocational cooperative education program

VOCATIONAL ALTERNATIVE EDUCATION

Marketing

Course #8120

36 weeks (1 cr.); elective

The Academy at Virginia Randolph

- Study the functions in the marketing of goods and services
- Develop the competencies for successful marketing employment
- Develop social and economic competencies in conjunction with marketing competencies
- Combine classroom instruction and a minimum of 396 hours of continuous, supervised on-the-job training when participating in cooperative education

Introduction to Education for Employment

Course #9076

36 weeks; elective; must be 14 years or older and considered disadvantaged to enroll

State enrollment limits apply

Middle schools

- Develop goals and values for employment through occupational preparation
- Acquire skills necessary for positive interpersonal relationships
- Participate in an on-campus paid work experience (part time) when available

Education for Employment I

Course #9078

36 weeks; (Co-op Optional); elective; must be 14 years or older and considered disadvantaged to enroll

State enrollment limits apply

The Academy at Virginia Randolph

- Investigate various occupational fields
- Practice solving real-world problems
- Develop employability skills through in-class instruction and on-the-job paid work experience

Education for Employment II (EFE II)

Course #9080

36 weeks (co-op optional); elective; must be 14 years or older and considered disadvantaged to enroll

State enrollment limits apply

The Academy at Virginia Randolph

- Experience a motivational program to help achieve a higher level of success
- Develop skills to get a job and be successful on the job
- Participate in a paid-work experience
- Become familiar with educational and career options

WORLD LANGUAGES

Exploratory Languages and Cultures 6

Course #5102, #5202, #5302, #5502

9/18 weeks; elective

Middle schools

- Explore the languages and cultures of Francophone and Spanish-speaking countries as well as Germany, Japan, Ancient Rome and China
- Learn basic vocabulary and communication skills of each language
- Explore the geography, customs and traditions of these countries

Introduction to Languages and Cultures

Course #5700

36 weeks; elective

Middle schools

- Explore the languages and cultures of Francophone and Spanish-speaking countries as well as Germany, Japan, Ancient Rome and China
- Learn basic vocabulary and communication skills of each language
- Explore the geography, customs and traditions of these countries

French Exploratory 7

Course #5103

9-18 weeks; elective

Middle schools

- Acquire skills in comprehending, speaking, reading, and writing French
- Acquire knowledge of the vocabulary and the structure of the French language while participating in activities related to the daily life of the Francophone people

Foundations of French Part A

Course #5113

36 weeks; elective

Middle schools

- Acquire skills in comprehending, speaking, reading and writing French
- Learn vocabulary and grammatical structures to perform in contextual situations
- Explore the geography, customs, art, music, and traditions of Francophone countries

Foundations of French Part B

Course #5115

36 weeks (1 cr.); elective

Middle schools

- Must have completed Foundations of French Part A
- Acquire skills in comprehending, speaking, reading, and writing French
- Expand vocabulary and grammatical structures
- Explore the geography, history, culture and customs of Francophone countries

WORLD LANGUAGES

French I

Course #5110

36 weeks (1 cr.); elective

Middle/High schools

- Acquire skills in comprehending, speaking, reading, and writing French
 - Learn vocabulary and grammatical structures to perform in contextual situations
 - Explore the geography, customs, and traditions of Francophone countries
-

French II

Course #5120

36 weeks (1 cr.); elective

High schools

- Continue to improve all communication skills: reading, writing, listening and speaking
 - Learn to speak the language with more fluency and ease
 - Increase vocabulary and improve grammar usage
-

French III

Course #5130

36 weeks (1 cr.); elective

High schools

- Continue to improve all communication skills: reading, writing, listening and speaking using authentic resources
 - Refine pronunciation and fluency
 - Increase vocabulary and learn advanced grammar structures
-

French IV Honors

Course #5140

36 weeks (1 cr.); elective

High schools

- Refine all communication skills: reading, writing, listening and speaking using advanced, authentic resources
 - Broaden conversational vocabulary and idiomatic expressions
 - Examine language usage through culture, history, art and literature
-

AP French Language

Course #5170

36 weeks (1 cr.); elective

High schools

- Focus on themes to study literary works and their geographic and historical settings
 - Refine structures, vocabulary usage, and speaking skills used in context
 - Prepare for the Advanced Placement Language Exam and review for the College Board Achievements through increased emphasis on speaking and listening skills
-

French VI Honors

Course #5160

36 weeks (1 cr.); elective

High schools

- Must have completed French AP
 - Learn the most advanced grammar and vocabulary
 - Analyze global current issues affecting Franco-phone communities
 - Discuss literary, history and artistic work from Franco-phone countries
-

German I

Course #5210

36 weeks (1 cr.); elective

Middle/High schools

- Learn basic vocabulary and grammatical structures
 - Acquire skills in comprehending, speaking, reading, and writing German
 - Explore the geography, customs, and traditions of Germany and other German-speaking areas
-

German II

Course #5220

36 weeks (1 cr.); elective

High schools

- Continue to improve all communication skills: reading, writing, listening and speaking
 - Learn to speak the language with more fluency and ease
 - Increase vocabulary and improve grammar usage
-

German III

Course #5230

36 weeks (1 cr.); elective

High schools

- Continue to improve all communication skills: reading, writing, listening and speaking using authentic resources
 - Refine pronunciation and fluency
 - Increase vocabulary and learn advanced grammar structures
-

German IV Honors

Course #5240

36 weeks (1 cr.); elective

High schools

- Continue to improve all communication skills: reading, writing, listening and speaking using authentic resources
 - Broaden conversational vocabulary and idiomatic expressions
 - Acquire insight into German humanities from early Germanic tribes to present
-

AP German

Course #5270

36 weeks (1 cr.); elective

High schools

- Continue fluency in written and oral expression
 - Read and discuss masterpieces in their entirety and historical settings
 - Prepare for the Advanced Placement Language Exam and review for the College Board Achievements through increased emphasis on speaking and listening skills
-

Latin and Greek for the 20th Century

Course #5305

18 weeks (.5 cr.); elective

High schools

- Explore the elements of Latin and Greek that influence American culture and language
 - Learn Latin words, phrases, and abbreviations used in English
 - Use this course to prepare for taking standardized tests
-

Foundations of Latin Part A

Course #5308

36 weeks; elective

Middle schools

- Learn thematic and functional vocabulary with prefixes, suffixes, and root words
 - Explore the impact of ancient Rome on the present
 - Gain perspective on the present by finding root words in one's own language from Roman life
-

Foundations of Latin Part B

Course #5309

36 weeks (1 cr.); elective

Middle schools

- Must have completed Foundations of Latin Part A
 - Increase English vocabulary and understanding of the structure of the language
 - Explore the impact of ancient Rome on the present
 - Gain perspective on the present by finding roots in one's own language from Roman life
-

Latin I

Course #5310

36 weeks (1 cr.); elective

Middle/High schools

- Learn thematic and functional vocabulary along with prefixes, suffixes, and root words
 - Explore the impact of ancient Rome on the present
 - Gain perspective on the present by finding roots in one's own language from Roman life
-

Latin II*Course #5320**36 weeks (1 cr.); elective**High schools*

- Increase vocabulary by learning derivative
- Develop cultural understanding, attitudes, and linguistic performance skills
- Increase awareness of the contributions of Roman civilization to the Western civilization

Latin III*Course #5330**36 weeks (1 cr.); elective**High schools*

- Develop vocabulary and derivatives
- Read a variety of Roman authors such as Livy, Caesar, and Cicero
- Gain insight into Roman thought and concerns, and political and social problems

Latin IV Honors*Course #5340**36 weeks (1 cr.); elective**High schools*

- Become proficient in using Latin grammar
- Enrich English vocabulary through expanded study of prefixes, suffixes, and root words
- Read the classics of Roman literature, primarily lyric and epic poetry

AP Latin: Vergil*Course #5341**36 weeks (1 cr.); elective**High schools*

- Translate and analyze the poet Vergil and his major work, the *Aeneid*
- Study the style, meter, vocabulary, and grammatical forms unique to Vergil
- Study the ancient epic as a literary genre and the parallels between the works of Vergil and Homer

Foundations of Spanish Part A*Course #5513**36 weeks; elective**Middle schools*

- Acquire skills in comprehending, speaking, reading, and writing
- Learn basic vocabulary needed for everyday situations
- Explore the geography, customs, and traditions of Spain and Hispanic America

Foundations of Spanish Part B*Course #5515**36 weeks (1 cr.); elective**Middle schools*

- Must have completed Foundations of Spanish Part A
- Acquire skills in comprehending, speaking, reading, and writing Spanish
- Learn expanded vocabulary for everyday situations
- Explore the geography, customs, and traditions of Spain and Hispanic America

Spanish I*Course #5510**36 weeks (1 cr.); elective**Middle/High schools*

- Acquire skills in comprehending, speaking, reading, and writing Spanish
- Learn vocabulary and structures for everyday situations
- Explore the geography, customs, and traditions of Spain and Hispanic America

Spanish II*Course #5520**36 weeks (1 cr.); elective**High schools*

- Continue to improve all communication skills: reading, writing, listening and speaking
- Learn to speak the language with more fluency and ease
- Increase vocabulary and improve grammar usage

Spanish III*Course #5530**36 weeks (1 cr.); elective**High schools*

- Increase comprehension, speaking, reading, and writing skills
- Read, discuss, and write short, creative themes on stories drawn from the Spanish cultural heritage
- Read excerpts from the literature of Spanish-speaking countries and expand the study of history, art, music, and geography

Spanish IV Honors*Course #5540**36 weeks (1 cr.); elective**High schools*

- Review grammatical structures and incorporate structures in using the language
- Improve the skills of speaking, listening, reading, and writing
- Study the cultures of the Incan, Mayan, and Aztec Indians

AP Spanish Language*Course #5570**36 weeks (1 cr.); elective**High schools*

- Increase proficiency in listening, speaking, reading, and writing
- Write essays on literary topics
- Study Spanish and Latin American history, art, and literature after 1492
- Prepare for the Advanced Placement Language Exam and review for the College Board Achievements with added emphasis on speaking and listening skills

Spanish VI Honors*Course #5560**36 weeks (1 cr.); elective**High schools*

- Must have completed Spanish V or AP Spanish
- Refine listening, speaking, reading and writing skills in Spanish
- Analyze global current issues affecting Spanish-speaking communities
- Discuss literary, history and artistic work from Hispanic countries

Chinese I*Course #5810**36 weeks (1 cr.); elective**Middle/High schools*

- Acquire skills in understanding and speaking the Chinese language
- Learn basic vocabulary, grammar and characters used in daily living and conversations
- Discuss geography, history, culture and traditional customs of China

Chinese II*Course #5820**36 weeks (1 cr.); elective**High schools*

- Increase vocabulary and grammatical structures
- Learn more Chinese characters
- Develop the ability to speak and communicate in Chinese
- Increase knowledge of the history, geography, culture and customs of China

Chinese III*Course #5830**36 weeks (1 cr.); elective**High schools*

- Continue to improve all communication skills: reading, writing, listening and speaking
- Refine pronunciation and fluency
- Increase knowledge of culture and number characters used in written communication

Chinese IV Honors*Course #5840**36 weeks (1 cr.); elective**High schools*

- Refine all communication skills: reading, writing, listening and speaking
- Broaden conversational vocabulary and use of Chinese characters
- Examine language use through culture, history, art and literature

Chinese V Honors*Course #5850**36 weeks (1 cr.); elective**High Schools*

- Refine and expand communication skills
- Read and speak for authentic purposes
- Explore and discuss Chinese in the global community, past and present

NOTES

Educational Specialists Serving Middle and High Schools

Art

Michael C. Kalafatis, 652-3756

Business and Information Technology and Marketing

Fahryka P. Elliott, 781-1812

Careers/Business Partnerships

Bradford M. Beazley, 781-1811

English as a Second Language (ESL)

Val P. Gooss, 652-3742

English, Language Arts, and Reading

Erica L. Basnight-Johnson, 652-3740

Exceptional Education, East Region

Ashley Reyher, 652-3803

Exceptional Education, West Region

Kimber Coffey, 652-3546

Extended Learning Specialist

Justine C. Jordan, 652-3027

Family and Consumer Sciences/EFE

LaRhonda F. Mason, 781-1815

Gifted Education Programs

Patricia Griffin, 652-3790

Health and Medical Sciences

Kathryn Mauch, 527-4660 x124

Health, Physical Education, and Driver Education

Benita Turner, 652-3741

International Baccalaureate Programs

April W. Craver, 261-6440

Library Services

Anita B. Tarbox, 652-3700

Mathematics

Erven S. Tyler, Jr., 652-3753

Music

Richard A. Tinsley, 652-3759

Policy, Records Management/Transcripts

Deb Reed, 652-3854

Pre-Engineering/Industrial Careers/JROTC/ Agriculture

Shawn M. Gross, 781-1821

School Counseling

Regina B. Brown, 652-3307

Science

Laura A. Casdorff, 652-3758

Social Studies

Michael J. Hasley, 652-3752

Student Activities and Summer Programs

John P. Carroll, 652-3761

World Languages

Val P. Gooss, 652-3742

Specialty Centers and Programs

Advance College Academy

Business Administration

Highland Springs High School
W. Allen Riddle, 328-4000

Advance College Academy

Social Sciences

J. R. Tucker High School
Sheralyne Tierseron, 527-4600, ext. 3039

Center for the Arts

Henrico High School
Stephanie L. Poxon, 228-2718

Center for Communications and Media Relations

Varina High School
Beverley Lanier, 226-3139

Center for Education and Human Development

Glen Allen High School
Ryan Conway, 501-3329

Center for Engineering

Highland Springs High School
Billy W. Batkins, 328-4073

Center for the Humanities

Hermitage High School
Bruce D. Marr, 756-3017

Center for Information Technology

Deep Run High School
Lynne M. Norris, 364-8027

International Baccalaureate Programs

Henrico High School
Priscilla Biddle, 228-2745

J. R. Tucker High School
Ellie Harper, 967-2320

International Baccalaureate Middle Years Program

Fairfield, George H. Moody, and Tuckahoe Middle
Schools

April W. Craver, 261-6440

Center for Leadership, Government, and Global Economics

Douglas S. Freeman High School
Robert Peck, 673-3700

Todd Allen Phillips Center for Medical Sciences

Mills E. Godwin High School
Denise S. Williams, Interim Director, 750-2600

Center for Spanish Language and Global Citizenship

J. R. Tucker High School
Lisa H. Hand, 527-4618

Henrico County Middle Schools

Brookland Middle School

Nicholas P. Barlett, Principal
9200 Lydell Drive, Henrico 23228
Telephone: 261-5000

Elko Middle School

Dominique Friend, Principal
5901 Elko Road, Sandston 23150
Telephone: 328-4110

Fairfield Middle School

Arthur G. Raymond, III, Principal
5121 Nine Mile Road, Henrico 23223
Telephone: 328-4020

Holman Middle School

Brian P. Fellows, Principal
600 Concourse Blvd., Glen Allen 23059
Telephone: 346-1300

Hungary Creek Middle School

Robert J. Moose, Principal
4909 Francistown Road, Glen Allen 23060
Telephone: 527-2640

George H. Moody Middle School

Paul E. Llewellyn, Principal
7800 Woodman Road, Henrico 23228
Telephone: 261-5015

Pocahontas Middle School

Kimberly G. Sigler, Principal
12000 Three Chopt Road, Henrico 23233
Telephone: 364-0830

Quioccasin Middle School

Cheri L. Guempel, Principal
9400 Quioccasin Road, Henrico 23238
Telephone: 750-2630

John Rolfe Middle School

Michael A. Jackson, Principal
6901 Messer Road, Henrico 23231
Telephone: 226-8730

Short Pump Middle School

Thomas H. McAuley, Principal
4701 Pouncey Tract Road, Glen Allen 23059
Telephone: 360-0800

Tuckahoe Middle School

Ann M. Greene, Principal
9000 Three Chopt Road, Henrico 23229
Telephone: 673-3720

L. Douglas Wilder Middle School

Solomon W. Jefferson, Principal
6900 Wilkinson Road, Henrico 23227
Telephone: 515-1100

Henrico County High Schools

Deep Run High School

Leonard G. Pritchard, Principal
4801 Twin Hickory Road, Glen Allen 23059
Telephone: 364-8000

Evening School of Excellence

Highland Springs High School
William "Randy" Mudd, Coordinator
Loretta Speller, Coordinator
15 S. Oak Avenue, Highland Springs, 23075
Telephone: 512-4101
Tabatha M. W. Spurlock, Administrator
3820 Nine Mile Road, Henrico 23223
Telephone: 652-3809

Evening School of Excellence

Academy at Virginia Randolph
Lori Huff, Coordinator
Jamette Todd, Coordinator
2204 Mountain Road, Glen Allen 23060
Telephone: 553-4342

Douglas S. Freeman High School

Andrew P. Mey, Principal
8701 Three Chopt Road, Henrico 23229
Telephone: 673-3700

Glen Allen High School

Gwen E. Miller, Principal
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Telephone: 501-3300

Mills E. Godwin High School

Leigh R. Dunavant, Principal
2101 Pump Road, Henrico 23238
Telephone: 750-2600

Henrico High School

Karin G. Castillo-Rose, Principal
302 Azalea Avenue, Henrico 23227
Telephone: 228-2700

Hermitage High School

Robert A. Turpin, III, Principal
8301 Hungary Spring Road, Henrico 23228
Telephone: 756-3000

Highland Springs High School

Pamela B. Bell, Principal
15 South Oak Avenue, Highland Springs 23075
Telephone: 328-4000

J. R. Tucker High School

Robert C. Lowerre, Principal
2910 Parham Road, Henrico 23294
Telephone: 527-4600

Varina High School

Ann Marie Seely, Principal
7053 Messer Road, Henrico 23231
Telephone: 226-8700

Advanced Career Education (ACE) Centers and Special Programs

The Academy at Virginia Randolph

Jesse M. Casey, Principal
2204 Mountain Road, Glen Allen 23060
Telephone: 261-5085

GRAD/Performance Learning Center

Victor Oliver, Principal
2915 Williamsburg Road, Henrico 23231
Telephone: 236-5730

ACE Center at Hermitage

Terrie Allsbrooks, Principal
8301 Hungary Spring Road, Henrico 23228
Telephone: 756-3020

ACE Center at Highland Springs

William J. Crowder, Jr., Principal
100 Tech Drive, Highland Springs 23075
Telephone: 328-4075

Highland Springs Adult Education Center-East

Angela S. Watson, Outreach Coordinator
201 E. Nine Mile Road, Highland Springs 23075
Telephone: 328-4095

Mount Vernon Adult Education Center-West

Greg Lawson, Administrator
7850 Carousel Lane, Henrico, 23294
Telephone: 527-4660

James River Juvenile Detention Center

Callis West, Principal
P. O. Box 880, Goochland 23063
Telephone: 556-4214

Virginia Randolph Education Center

Jesse M. Casey, Principal
2206 Mountain Road, Glen Allen 23060
Telephone: 261-5090

Administrative Staff for Instruction

Patrick C. Kinlaw, Superintendent
Telephone: 652-3720

Beth N. Teigen, Assistant Superintendent for Instruction
Telephone: 652-3754

Nyah D. Hamlett, Assistant Superintendent for Instructional Support Services
Telephone: 652-3825

Mary Cox, Director of Elementary Education
Telephone: 652-3738

Rich Hall, Director of Elementary Education
Telephone: 652-3794

Michelle McQueen-Williams, Director of Elementary Education
Telephone: 652-3736

Ingrid G. Grant, Director of Middle School Education
Telephone: 652-3676

Omega W. Wilson, Director of High School Education
Telephone: 652-3848

Donice Davenport, Director of Exceptional Education
Telephone: 652-3866

Mac R. Beaton, Director of Career and Technical Education
Telephone: 781-1810

Shawnrell D. Blackwell, Director of Family Engagement
652-3374

Vision & Mission

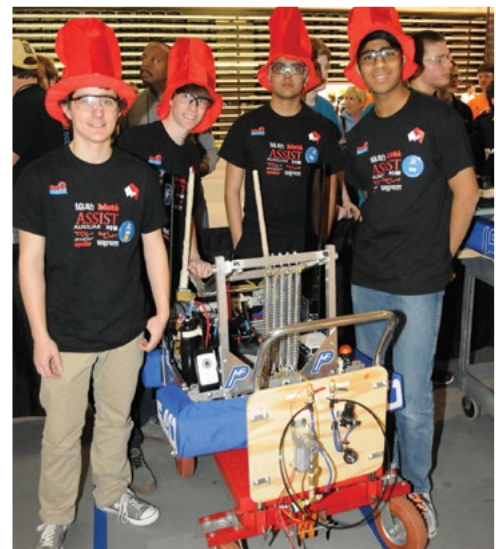
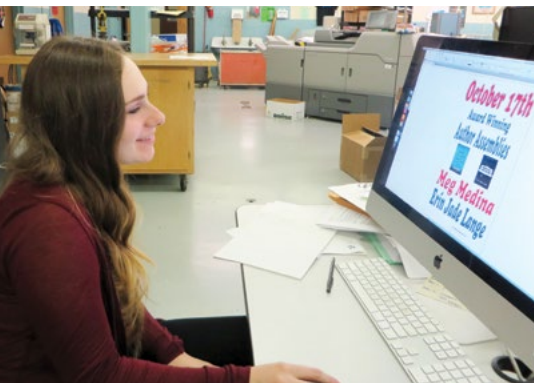
Vision

Henrico County Public Schools believes in the right to achieve and the support to succeed for all.

Mission

Henrico County Public Schools, an innovative leader in educational excellence, will actively engage our students in diverse educational, social, and civic learning experiences that inspire and empower them to become contributing citizens.





Dr. Patrick Kinlaw
Superintendent of Schools
P.O. Box 23120
Henrico, Virginia 23223
henricoschools.us