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# Using The Program of Studies

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## ☐ Select a Career Cluster/Path

- Choose a career cluster/path that closely relates to your interests, skills, values and strengths.
- Explore occupations that relate to your chosen career cluster/path.
- Learn what knowledge, skills and abilities are required.

## ☐ Familiarize Yourself with Graduation Requirements and Decide Which Diploma You Will Pursue

- Advanced Studies
- Standard

## ☐ Identify and Choose Courses that Relate to Your Diploma Choice and Career Path

- Formally request these courses during the online course selection process led by your school counselor.
- 7th-12th grade students, along with the support of their school counselor, will create/update their Academic and Career Plan (ACP) to reflect educational and career goals.

## Virginia's 17 Career Clusters

Career Clusters help students investigate careers and design their course of study to advance their career goals. For this reason, Virginia has adopted the nationally accepted structure of career clusters, career pathways and sample career specialties or occupations.

A Career Cluster is a grouping of occupations and broad industries based on commonalities. Within each Career Cluster, there are multiple career pathways that represent the common set of skills and knowledge, both academic and technical, necessary to pursue a full range of career opportunities within that pathway – ranging from entry level to management- and including technical and professional career specialties.

To view individual Virginia Department of Education web pages containing pathways occupational descriptions, data snapshots, employment projections, salary scales and plans of studies for each of the Career Clusters, visit [http://www.doe.virginia.gov/instruction/career\\_technical/career\\_clusters/](http://www.doe.virginia.gov/instruction/career_technical/career_clusters/) or click on the Career Cluster below:

- [Agriculture, Food & Natural Resources](#)
- [Architecture & Construction](#)
- [Arts, A/V Technology & Communications](#)
- [Business Management & Administration](#)
- [Education & Training](#)
- [Energy](#)
- [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](#)

All Williamsburg-James City County students have access to Virginia Education Wizard ([www.vawizard.org](http://www.vawizard.org)) – a comprehensive career and college planning website that provides students with the ability to assess their skills and explore associated career clusters; find specific occupations in demand, and the top employers within their local area and other regions of Virginia; explore public and private colleges and universities throughout Virginia based on various “fit” factors and save the results; prepare for college admission and attendance; and build resumes and prepare for interviews.

**Contact your School Counseling Department for assistance with Individual Student Planning.**



# Williamsburg-James City County Public Schools

## Academic & Career Plan (ACP)

/ /

Student Name

DOB

Student ID #

Middle School

High School

### CAREER EXPLORATION: Align knowledge, skills and personal interests with career opportunities.

#### Career Goals:

Career Cluster/Pathway 1

Career Cluster/Pathway 2

Career Cluster/Pathway 3

#### Post-Secondary Goals (Check all that apply):

- Community College
- 4-Year College/University
- Professional Training Program/Apprenticeship
- Military
- Part-time Employment
- Full-time Employment
- Other: \_\_\_\_\_

#### Diploma Goals:

- Standard
- Advanced
- Other: \_\_\_\_\_

#### Standardized Test Goals:

- PSAT
- SAT
- ACT

#### Industry Credentials/Certification

- WISE Financial Literacy Certification
- Workplace Readiness Skills for the Commonwealth
- Other(s): \_\_\_\_\_

#### Career Assessment(s) Goals:

- Skills Assessment
- Interest Assessment
- Values Assessment

#### Vocational Aptitude Test Goals:

- ASVAB

### WORKPLACE SKILLS: Demonstrate productive workplace skills, qualities, and behaviors.

**Goal:** Check 7 of the 21 Workplace Readiness Skills for the Commonwealth that you plan to work on in the immediate future. Repeat this each time this plan is reviewed.

- Positive Work Ethic
- Integrity
- Teamwork
- Self-Representation
- Diversity Awareness
- Conflict Resolution
- Creativity & Resourcefulness
- Speaking & Listening
- Reading & Writing
- Critical Thinking & Problem Solving
- Health & Safety
- Organizations, Systems & Climates
- Lifelong Learning
- Job Acquisition & Advancement
- Time, Task, and Resource Management
- Mathematics
- Job Specific Technologies
- Information Technology
- Internet Use & Security
- Telecommunications

Student Name

Student ID #

**CONTENT KNOWLEDGE: Achieve and apply appropriate academic and technical knowledge**

Education Levels	Grade	English/Language Arts	Mathematics	Science	Social Studies/Social Sciences	Health/PE, Economics & Personal Finance, Acceleration courses, etc.	World Languages & Electives	Fine Arts and Career & Technical Education (CTE)
Middle	7		Life Science			Health/PE 7 (7121)		
	8		Physical Science			Health/PE 8 (7210)		
Secondary	9							
	10							
	11							
	12							

**COMMUNITY ENGAGEMENT & CIVIC RESPONSIBILITY: Build connections & value interaction with others as a responsible and responsive citizen.**

Student Clubs/Activities:  
 Student Organizations/Groups:  
 Work-based Learning Experiences:  
 Community Service Experiences:

Student Signature	Date Initiated	Date Reviewed
Parent/Guardian Signature	Date Initiated	Date Reviewed
School Official Signature	Date Initiated	Date Reviewed

I will focus on the 5 C's (critical thinking, creative thinking, collaboration, communication & citizenship) throughout my academic career.

# WJCC Secondary Schools

The purpose of the Program of Studies is to describe programs and courses offered in the middle and high schools of Williamsburg-James City County Public Schools (WJCC). Descriptions of courses offered in grades 6-8 and grades 9-12 are grouped by discipline. Grade-level designations represent the grade at which most students take a described course. Exceptions to stated grade levels may be made to meet the educational needs of an individual student. Detailed information is available in the school counseling department at each middle and high school.

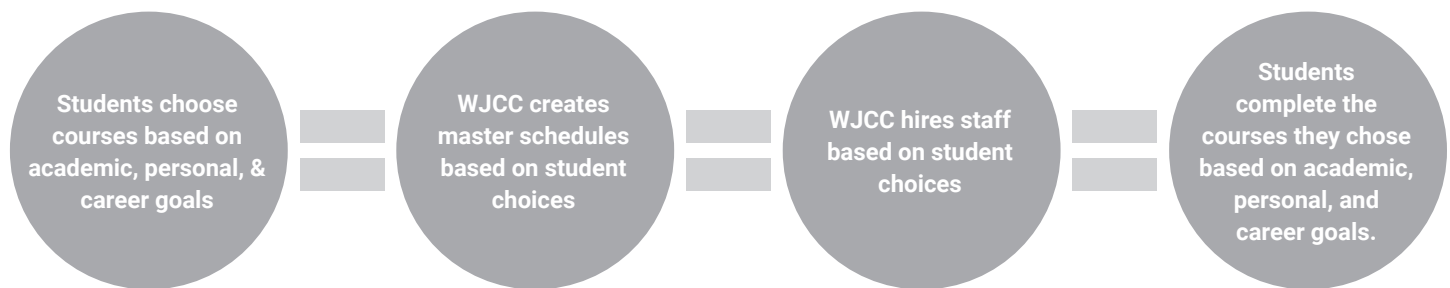
Families are asked to review this Program of Studies together. Our hope is that the Program of Studies will generate discussions about types of diplomas, career opportunities and preparation, post-secondary education and training requirements, and the role of educational decisions on future opportunities.

## General Information & Terminology

**Academic and Career Plan** – The Academic and Career Plan (ACP) is a personal learning plan that aligns educational and career goals with a student’s course of study. Students begin developing their own ACP in middle school with their school counselor and complete their plan by the end of their seventh-grade year. Students continue reviewing and updating their ACP annually.

**Career and Technical Education (CTE)** – Within WJCC there are many CTE courses offered for high school credit with concentrations that lead to CTE ‘completer’ status. Meeting the needs of students as they prepare to work in the 21st century are strands in Business & Information Technology, Career Connections, Family & Consumer Sciences, Health & Medical Sciences, Marketing Education, Technology Education, and Computer & Information Science.

**Course Selection/Registration Process** – The annual course selection process is simple, but important:



Prior to and during the annual online course selection period families are invited to attend course planning nights and student planning meetings with their child’s school counselor. Students and families should carefully consider diploma requirements; academic achievement; educational, career and personal goals; teacher/counselor recommendations; skills, and interests. Through thoughtful course selection, a student should be able to pursue both education and career goals. **Once the annual online course selection period closes, students will need to wait until the next open Drop/Add period to request changes. Specific scheduling circumstances may prevent requests for changes to be completed. It is, therefore, important to select courses during the online course selection period with the utmost care and students should intend to complete all courses selected.** Families are encouraged to contact their student’s school counselor, student advancement coach and/or teachers to discuss educational and career goals, course selections and student academic achievement. School counselors are your ultimate partner in individual student planning.

**Drop/Add** – The period of time in which all students seeking a schedule change may submit a request to drop a class provided he/she add another class in order to maintain a full class load. Requests are approved on a case-by-case basis. **Some requests, such as courses requested by students during the online course selection period and received by students on their schedules, may not be approved due to specific scheduling circumstances.** Drop requests that place the student with less than a full class load will not be honored.

**Early Graduation** – Students who plan to graduate early must receive permission from an administrator and plan an appropriate program with their counselor.

**Enrollment** – Students shall not be allowed to enroll if they have passed their 20th birthday on or before August 1 of a school year. Students who are receiving Special Education services may attend through age 21 if stipulated in their individualized education plan (IEP). Students identified as English Language Learners (ELL) may attend through age 21.

**Fees** – Student fees may be charged in accordance with state and federal laws. The student [fee schedule](#) is updated annually, and all courses that require a fee are clearly marked throughout the Program of Studies. Fees may be [reduced or waived](#) for economically disadvantaged students and students whose families are undergoing economic hardships. Fees may be waived or reduced for AP exams, PSAT, SAT, and the ACT.

**Grade Point Average (GPA)/Class Rank** – The Grade Point Average (GPA) for students is based on the sum of quality points for grades in completed courses divided by the number of credits attempted. Students are ranked in their class by their GPA.

**Grading Scale/Weighting** – Courses taught in WJCC middle and high schools are assigned grade point values as follows:

Number Grade	Letter Grade	Quality Points
90-100	A	4 points
80-89	B	3 points
70-79	C	2 points
60-69	D	1 point
59 and below	F	0 points

Designated high school courses for which a student earns an A, B, or C, because of the level of difficulty and time required for mastery, will carry an additional weight of 1 quality point when final Grade Point Averages (GPAs) are computed. Weighted courses will include all Advanced Placement (AP) courses, courses taught at the Governor's School for Science and Technology, and concurrent college courses taken in accordance with WJCC guidelines on Concurrent College Enrollment (see page 16).

**Promotion** – Just as students are required to earn a certain number of credits to meet graduation and diploma requirements, they must accumulate a certain number of credits in each grade to be promoted to the next grade level.

*High school students who entered the ninth grade prior to the 2018-2019 school year* matriculate to grade 10 if they have 6 credits, grade 11 with 14 credits, and to grade 12 with 21 credits.

*High school students who entered the ninth grade in the 2018-2019 school year and thereafter* matriculate to grade 10 if they have 5 credits, grade 11 with 11 credits, and grade 12 with 15 credits.

**Repeating a Class for Strength** – Students may re-enroll in a sequential class if they have a parent's signed request to re-take the class. The grades for both enrollments are calculated into the GPA, and the credit is applied evenly between both enrollments. Both grades become a permanent part of the student's transcript. Students may only repeat one course per semester. Courses originally taken through the Virtual Learning Program will be retaken in the traditional setting. Please note: Any course repeated for strength by a student athlete in which the student athlete originally received a grade of D or higher is not counted towards athletic eligibility.

**Sequenced Classes** – Students may request more than one math, science, world language, or health/PE class during the online course request period. Such requests will be granted on a space-available basis with preference given to seniors, juniors, and sophomores in that order. This does not apply to courses designated as electives or to students who need to make up a required course that they have failed. Every effort will be made to schedule language courses in consecutive semesters. Full acceleration may be allowed if scheduling and space permit. Students who fail will be able to repeat in the next semester on a space-available basis.

**Sequential Electives** – Students who entered ninth grade for the first time prior to 2018-2019 who wish to receive a Standard Diploma and students who entered ninth grade for the first time in 2018-2019 and beyond working towards a Standard Diploma or an Advanced Studies Diploma must successfully complete two sequential electives. These may be in any discipline as long as the courses are not specifically required for graduation. Courses used to satisfy the World Language, Fine Arts, or Career and Technical Education graduation requirement for the Standard Diploma, or the Fine Arts or Career and Technical Education requirement for the Advanced Studies Diploma may be used to partially satisfy this requirement. While an exploratory course followed by an introductory course may not be used to satisfy this requirement, an introductory course followed by another level of the same course of study may be used. These do not have to be taken in consecutive years.

**Shared Courses** – In addition to low-enrollment courses, courses that are only offered at one location may be considered "shared" and may be available to students from all three high schools at a designated location.

**Standard Credit** – Credit awarded for a course in which the student successfully completes 140 clock hours of instruction and requirements of the course. Local school boards may develop alternatives to the requirement for 140 clock hours of instruction as provided in 8VAC20-131-110 and in accordance with board guidelines.

**Standards of Learning Tests (SOL)** – SOL tests are End-Of-Course (EOC) tests that are required by the Virginia Department of Education to verify attainment of knowledge and skills in specific English, math, science and social studies courses.

**Verified Credit** – *For students who entered the ninth grade prior to the 2018-2019 school year*, a verified unit of credit for graduation is based on successful completion of a course and achieving a passing score on an End-Of-Course (EOC) Standards of Learning (SOL) exam or an additional test as approved by the Board of Education.

*For students who enter the ninth grade during the 2018-2019 school year or thereafter*, a verified unit of credit for graduation is a credit awarded for a course in which the student earns a standard unit of credit and: (1) achieves a passing score on a corresponding End-of-Course SOL test; or (2) achieves a passing score on an additional test approved by the board as part of the Virginia assessment program; or (3) meets the criteria for the receipt of a locally awarded verified credit conferred in accordance with board criteria and guidelines as provided in 8VAC20-131-110.B.3 when the student has not passed a corresponding SOL test in English, mathematics, laboratory science, or social studies; or (4) meets the criteria for the receipt of a verified credit for history and social studies by demonstrating mastery of the content of the associated course on authentic performance assessments, as provided in 8VAC20-131-110.B.4; or (5) meets the criteria

for the receipt of a verified credit in English (writing) by demonstrating mastery of the content of the associated course on authentic performance assessments, as provided in 8VAC20-131-110.B.5. No more than one locally awarded verified credit may be used to satisfy these requirements except as provided in 8VAC20-131-110.B.4 regarding credit accommodations for students with disabilities.

**Withdrawing from a Course** – Students who request to withdraw from a high school credit-bearing course after the first interim will receive a Withdraw Pass (WP) or a Withdraw Fail (WF), depending on their grade in the class at the time of withdrawal. Any withdrawals after the first interim must be approved by an administrator. Withdrawals will be considered in extenuating circumstances and on a case-by-case basis.

**Work-Based Learning (WBL)** – When available, students may have the opportunity to participate in a variety of career exploration and workplace skill-building experiences such as Job Shadowing, Service Learning, Mentorships, Externships, School-Based Enterprises, Internships, Clinical Experiences, Cooperative Education, and Youth Registered and Registered Apprenticeships.

When participating in the Cooperative Education or Internship WBL through a specific CTE course, the teacher-coordinator develops an individualized training plan with the student and employer/on-site supervisor that contributes directly to the student's career objectives, learning experiences, and employability. Students must be 16 years of age and have parent permission to participate. Students attend class part of the day and work in an approved business or service-oriented work environment part of the day. The number of work hours required are between 11 and 15 hours per week, with a minimum of 280 hours per school year. *A standard unit of credit earned is based upon the student's satisfactory employment throughout the entire school year. For more information about WBL opportunities, please contact the division's Career Coach.*

## Middle School Program

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The **sixth-grade** instructional program emphasizes skills and knowledge closely tied to the Virginia Standards of Learning. The required courses are English/Language Arts, mathematics, science, social studies, and health and physical education. Students also have the opportunity to choose electives from a number of music courses, an introductory world language course, or an exploratory wheel, which includes fine arts or Career and Technical Education courses.

The **seventh-grade** instructional program builds upon sixth grade knowledge and skills and is closely aligned with the Virginia Standards of Learning. Specific course availability may depend upon enrollment. Required courses are English/Language Arts, mathematics, life science, social studies, and health and physical education. Students may choose electives in the areas of Career and Technical Education, music, art, theatre and/or world languages.

The **eighth-grade** instructional program reflects challenging course work that prepares students for high school and emphasizes the skills and knowledge required for mastery of the Virginia Standards of Learning. Required courses are English/Language Arts, mathematics, physical science, world history, and health and physical education. Students may choose electives in the areas of Career and Technical Education, music, art, theatre and/or world languages.

\*\*Specific course availability depends upon enrollment numbers. Not all electives may be available every year. Students are expected to remain in the elective course(s) they choose for the entire year.

## Academic Support

Academic support programs provide additional instruction for students who have difficulty completing grade-level objectives. Academic support programs provide students with modified instruction, differentiated teaching strategies, and additional time to apply basic skills. The instruction provides frequent re-teaching of objectives, additional guided practice, and opportunities for hands-on activities that reinforce objectives. The selection of appropriate and interesting content with an emphasis on variety of materials is vital. The duration of an individual's support program is based upon the individual's progress. The amount of time per lesson and number of sessions is based upon the needs of the student.

## Gifted Education

The Gifted Education Program serves identified academically gifted students in specific content areas of study. The student's academic, social, and emotional needs are addressed in mathematics, English and social studies classes where differentiated curriculum and instructional strategies are implemented. Students are grouped in English and social studies classes where the curriculum is integrated, accelerated, and rigorous. The WJCC middle school program for academically gifted students serves as a bridge between the elementary and high school programs during a time of rapid change in academic, emotional, social, and physical development.

## High School Credit-Bearing Courses Taken in Middle School

The following courses are offered in middle school for high school credit (consult with a counselor concerning prerequisites for these courses):

- Algebra I
- Geometry
- World Language

The *Regulations Establishing Standards of Accrediting Public Schools in Virginia* have provided parents with the option of requesting that a



course (grade and associated high school credit) be expunged from a student's transcript for any high school credit-bearing course taken in middle school. If a student has a course expunged from the transcript in a high school credit-bearing Algebra or Geometry course, the course must be repeated for credit the following year in order to meet graduation requirements. If a student has a course expunged from the transcript in a high school credit-bearing World Language course, the course may be repeated for credit. Teachers and counselors will review the process with all students toward the end of the school year and expungement forms will be mailed home with final report cards. The decision to have a grade expunged is binding and no grade or associated credit will be awarded once a request has been granted. **The deadline to request a grade be expunged is August 1 of the same year in which the high school credit-bearing course was taken in middle school.**

Students who drop or have failed any part of a high school credit-bearing course and who are planning to retake the course the following year must register for the entire course. Credit is only awarded upon successful completion of the high school credit-bearing course.

## **Honors-Level Coursework**

The process for middle school student placement into an Honor's English course will be communicated to students and families annually.

## **Accelerated Math**

In order for a student to accelerate through "Pre-Algebra 6" (course # 3110-06) or "Pre-Algebra 8" (course # 3112-08) to the next course, the student must demonstrate mastery of the content that they will miss. The student's level of mastery is determined through the completion of a 50-question, free-response, timed, End-of-Course (EOC) assessment. A student earns a point for each correct answer and a point for written work or explanations that demonstrate an understanding of the content. Students must earn 85 points in order to demonstrate mastery and proceed to the next course in the sequence. All EOC tests cover the VDOE Mathematics SOL Frameworks. Administration of these acceleration assessments occur at each middle school during the first two weeks of June and the first two weeks of September during school hours. Please contact your child's school counselor for more information regarding this process.

## **Virginia State Assessments**

Sixth and seventh-grade students will take Virginia Standards of Learning (SOL) tests for reading and mathematics. Eighth-grade students take Virginia SOL tests for reading, writing, mathematics, civics, and science (science covers material from grades 6-8) in the spring. In addition, Virginia SOL tests are taken by students who are completing Algebra I and/or Geometry. By passing both the course and the SOL test in a high school credit-bearing course, the student shall earn one standard and one verified credit per course toward graduation.

# High School Program

The requirements for a student to earn a diploma and graduate from a Virginia high school shall be those in effect when that student enters the ninth grade for the first time.

## Diploma Requirements

Effective with students who *entered ninth grade for the first time prior to the 2018-2019 school year.*

Required Courses	Advanced Studies Diploma		Standard Diploma	
	Standard Credits	Verified Credits	Standard Credits	Verified Credits
<b>English</b> Reading & Writing	4	2	4	2
<b>Mathematics</b> <i>Advanced:</i> Courses shall include four selections from among Algebra I, Geometry, Algebra II, and other math courses above the level of Algebra II. <i>Standard:</i> Three course selections from among Algebra I, Geometry, Algebra Functions and Data Analysis, Algebra II, or other course above Algebra II.	4	2	3	1
<b>Laboratory Science</b> <i>Advanced:</i> Courses shall include selections from at least three different disciplines from Earth Science, Biology, Chemistry, or Physics. <i>Standard:</i> Courses shall include selections from at least two different disciplines from Earth Science, Biology, Chemistry, or Physics.	4	2	3	1
<b>Social Studies</b> Courses shall include US and VA History, US and VA Government, and two courses in world studies.	4	2	4	1
<b>World Language</b> <i>Advanced:</i> Courses shall include three years of one language or two years of two languages.	3		1	
<b>Health &amp; Physical Education</b>	2		2	
<b>Economics &amp; Personal Finance</b> Meets Virtual Course requirement	1		1	
<b>Fine Arts</b>	1		1	
<b>Career &amp; Technical Education</b> Industry credentials available	1		1	
<b>Electives</b> <i>Standard:</i> Courses shall include two sequential electives.	4		8	
<b>Student Selected Test</b>		1		1
<b>Total Credits Required:</b>	<b>28</b>	<b>9</b>	<b>28</b>	<b>6</b>

## **Additional graduation requirements for students who entered ninth grade prior to the 2018-2019 school year**

- 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; *and*
- complete training 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.

### **Students with Disabilities**

The Board of Education has approved **Standard Diploma Credit Accommodations for Students with Disabilities** to provide alternatives for meeting the requirements for a Standard Diploma. Students with an Individual Education Plan (IEP) or a 504 Plan that meet specific criteria may be eligible to receive credit accommodations for the Standard Diploma. This is determined by the student's IEP or 504 committee/team at any point after the student's eighth grade year.

### **Additional Notes**

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

Effective with students who *entered ninth grade for the first time in the 2018-2019 school year and thereafter.*

<b>Advanced Studies Diploma</b>	<b>Standard Credits</b>	<b>Verified Credits</b>
<b>English</b> Reading and writing	4	2
<b>Mathematics</b> Courses shall include at least three selections from among Algebra I, Geometry, Algebra II, or other math courses above the level of Algebra II. A Computer Science* course credit may be considered a mathematics credit.	4	1
<b>Laboratory Science</b> Courses shall include selections from at least three different disciplines from among Earth Science, Biology, Chemistry, or Physics. A Computer Science* course credit may be considered a laboratory science credit.	4	1
<b>Social Studies</b> Courses shall include VA and US History, VA and US Government, and two courses in world studies.	4	1
<b>World Language</b> Courses shall include three years of one language or two years of two languages.	3	
<b>Health &amp; Physical Education</b>	2	
<b>Economics &amp; Personal Finance</b> <i>Meets Virtual Course requirement</i>	1	
<b>Fine Arts or Career &amp; Technical Education</b> A Computer Science* course credit may be considered a Career and Technical Education credit.	1	
<b>Electives</b> Courses shall include at least two sequential electives.	3	
<b>Total Credits Required:</b>	<b>26</b>	

<b>Standard Diploma</b>	<b>Standard Credits</b>	<b>Verified Credits</b>
<b>English</b> Reading and writing	4	2
<b>Mathematics</b> Courses shall include at least two selections from among Algebra I, Geometry, Algebra, Functions and Data Analysis, or Algebra II. A Computer Science* course credit may be considered a mathematics credit.	3	1
<b>Laboratory Science</b> Courses shall include selections from at least two different disciplines from among Earth Science, Biology, Chemistry, or Physics. A Computer Science* course credit may be considered a laboratory science credit.	3	1
<b>Social Studies</b> Courses shall include VA and US History, VA and US Government, and one course in world studies.	3	1
<b>Health &amp; Physical Education</b>	2	
<b>Economics &amp; Personal Finance</b> <i>Meets Virtual Course requirement</i>	1	
<b>World Language, Fine Arts or Career &amp; Technical Education</b> Courses shall include one credit in fine or performing arts or Career and Technical Education. A Computer Science* course credit may be considered a Career and Technical Education course.	2	
<b>Electives</b> Courses shall include at least two sequential electives	4	
<b>Total Credits Required:</b>	<b>22</b>	

\*For **mathematics** and **career and technical education**, *AP Computer Science A* may provide a standard credit to satisfy graduation requirements. For **laboratory science**, *AP Computer Science A* may provide a standard credit to satisfy graduation requirements when students successfully complete laboratory science courses from the different science discipline areas in accordance with the Standards of Accreditation.

## Additional graduation requirements for students who entered ninth grade in the 2018-2019 school year and thereafter

- Complete an Advanced Placement (AP), honors, or dual enrollment course, or complete a high-quality work-based learning experience, or earn a board-approved Career and Technical Education credential; and
- successfully complete one virtual course, which may be non-credit bearing; *and*
- complete training 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; *and*
- demonstrate foundational skills in the 5 C's: critical thinking, creative thinking, collaboration, communication, *and* citizenship in accordance with the Profile of a Virginia Graduate approved by the board.

### Students with Disabilities

The Board of Education has approved Standard Diploma Credit Accommodations for students with disabilities to provide alternatives for meeting the requirements for a Standard Diploma. Students with an Individual Education Plan (IEP) or a 504 Plan that meet specific criteria may be eligible to receive credit accommodations for the Standard Diploma. This is determined by the student's IEP or 504 committee/team at any point after the student's eighth grade year.

### Additional Notes

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 a laboratory science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the board as an additional test to verify student achievement.

## Other Diploma Types

### Virginia Applied Studies Diploma

Students with disabilities who complete the requirements set forth in their Individualized Educational Program (IEP) and do not meet the requirements for other diplomas shall be awarded Applied Studies diploma in accordance with state and federal laws and regulations regarding special education.

Students who pursue an Applied Studies Diploma shall be allowed to pursue a Standard Diploma or Advanced Studies Diploma at any time during high school. Such students shall not be excluded from courses or tests required to earn these diplomas.

The School Board will notify parents of qualified students with disabilities who have an IEP and who fail to meet the requirements for graduation of the right to a free and appropriate education to age 21, inclusive, pursuant to Va. Code § 22.1-213 et seq.

### Virginia General Achievement Adult High School Diploma

In order to be eligible for a General Achievement Adult High School Diploma, a candidate must be at least 18 years of age and not enrolled in a public school or not otherwise meet the compulsory school attendance requirements of Va. Code § 22.1-254. Candidates must earn 20 standard units of credit including the following:

Standard Units of Credits Required	
English	4
Mathematics	3
Science	2
History and Social Science	2
VA & US History	
VA & US Government	
Electives (including two sequential electives)	9
<b>Total Credits</b>	<b>20</b>

The required standard units of credit may be earned by enrolling in:

- a public school, if the candidate meets the age requirements;
- a community college or other institution of higher education;
- an adult high school program; or
- a correspondence, distance learning, and/or online course.

Candidates for a General Achievement Diploma must achieve a passing score on the GED Examination.

## **Virginia General Educational Development (GED) Certificate**

The Board of Education has established a program of testing for high school equivalency through the General Educational Development (GED). A GED Certificate may be earned through the Individual Student Alternative Education/GED Program offered through WJCC. The following may participate in the testing program:

1. Students ages 16-18 enrolled in high school programs who are having difficulty finding success in a regular classroom environment;
2. Persons 16 years of age or older who have been instructed by their parents in their home pursuant to Va. Code § 22.1-254.1 and who have completed such home school instruction;
3. Persons who have been excused from school attendance pursuant to subsections B and C of Va. Code § 22.1-254;
4. Persons for whom an individual student alternative education plan has been granted pursuant to subsection D of Va. Code § 22.1-254; and
5. Persons 16-18 years of age who are housed in adult correctional facilities and who are actively pursuing a GED certificate but who are not enrolled in an ISAEP pursuant to subsection D of Va. Code § 22.1-254.

Students must have a 7.5 grade equivalent on a standardized reading achievement and passing scores on each of the pretests. Under no circumstances shall persons under the age of 16 be eligible for the testing program.

## **Transfer Student Information**

**Academic Credits:** WJCC accepts credits towards graduation received from all other Virginia public schools; other accredited secondary schools, including summer school; Virtual Virginia; Virginia approved Multi-Division Online Providers (MOP); and non-public schools that have received accreditation through a Virginia Council for Private Education (VCPE) approved state recognized accrediting member. Credits will be awarded based on the student's time in class and grade given by the departing school. All letter grades will be entered into the student's transcript. Numerical grades will only be used in accordance with the WJCC grading scale in the event the departing school provides no grading scale. The following courses receiving a weight from the departing school will transfer as a weighted credit for WJCC: AP courses, Cambridge courses, IB courses, and concurrent college courses meeting WJCC criteria (see page 16).

Students entering WJCC secondary schools from a non-accredited school will have credits reviewed and awarded on a case-by-case basis

**Graduation Requirements:** All students, regardless of grade level, must take Economics and Personal Finance as well as a virtual course in order to graduate. Economics and Personal Finance can be counted for both of these requirements.

Students transferring above the tenth grade from schools or other education programs that do not require or give credit for health and physical education shall not be required to take these courses to meet graduation requirements.

*Transfer students who entered the ninth grade prior to the 2018-2019 school year* are required to earn 28 standard credits to graduate for both Advanced Studies and Standard Diploma types. In the event a student cannot meet this requirement due to the lack of available opportunities at their previous school, credits may be prorated for graduation depending on the student's transfer year. Prorated credits may not go below 22 for a Standard and 26 for an Advanced Studies Diploma.

*Transfer students who entered ninth grade in the 2018-2019 school year* or thereafter are required to earn 22 standard credits for the Standard Diploma and 26 standard credits for the Advanced Studies Diploma.

**Verified Credits:** Students transferring from another Virginia public school must take and pass a specific number of Virginia Standards of Learning (SOL) assessments in order to graduate with a desired diploma type. Students transferring into the Virginia public school system from other than a Virginia public school may be awarded a verified credit toward graduation in a course previously completed if one of the following tests from the sending state, country, private school, or Department of Defense Educational Activity school was completed and can be verified: (1) End-of-Course tests required for graduation by the sending state; or (2) exit tests required for graduation by the sending state; or (3) national norm-referenced achievement tests required by the sending state with a "cut score" or passing score for the purpose of graduation, if that test includes some content in a subject for which a verified credit may be awarded. Any substitute test approved by the board for verified credit should be accepted in lieu of the applicable Virginia SOL assessment if the student has earned the applicable standard credit.

# Graduation Requirements for Students Transferring into a Virginia Public School for the First Time

“First time” refers to the first time the student was enrolled in a Virginia public school in that grade, regardless of where the student attended the ninth grade.

**Beginning** = First 20 hours of instruction • **During** = After the first 20 hours of instruction

A student entering a Virginia high school for the first time:	Prior to 2018-19 school year:	2018-19 school year:	2019-20 school year:	2020-21 school year:	2021-22 school year and thereafter:
<b>Ninth grade</b>	All diploma requirements effective with students who entered ninth grade for the first time prior to the 2018-2019 school year.	All diploma requirements effective with students who entered ninth grade for the first time in the 2018-2019 school year and thereafter.			
<b>Tenth grade</b>	All diploma requirements effective with students who entered ninth grade for the first time prior to the 2018-2019 school year <b>EXCEPT:</b>  Standard Diploma- only 4 verified credits required: <ul style="list-style-type: none"> <li>• English (1)</li> <li>• Mathematics (1)</li> <li>• Social Studies (1)</li> <li>• Science (1)</li> </ul> Advanced Studies Diploma- only 6 verified credits required: <ul style="list-style-type: none"> <li>• English (2)</li> <li>• Mathematics (1)</li> <li>• Social Studies (1)</li> <li>• Science (1)</li> <li>• Student Selected (1)</li> </ul>		All diploma requirements effective with students who entered ninth grade for the first time in the 2018-2019 school year and thereafter.		
<b>At the beginning of eleventh grade</b>	All diploma requirements effective with students who entered ninth grade for the first time prior to the 2018-2019 school year <b>EXCEPT:</b>  Standard Diploma- only 4 verified credits required: <ul style="list-style-type: none"> <li>• English (1)</li> <li>• Mathematics (1)</li> <li>• Social Studies (1)</li> <li>• Science (1)</li> </ul> Advanced Studies Diploma- only 6 verified credits required: <ul style="list-style-type: none"> <li>• English (2)</li> <li>• Mathematics (1)</li> <li>• Social Studies (1)</li> <li>• Science (1)</li> <li>• Student Selected (1)</li> </ul>			All diploma requirements effective with students who entered ninth grade for the first time in the 2018-2019 school year and thereafter.	
<b>During eleventh grade</b>	All diploma requirements effective with students who entered ninth grade for the first time prior to the 2018-2019 school year <b>EXCEPT:</b>  Standard Diploma- only 2 verified credits required: <ul style="list-style-type: none"> <li>• English (1)</li> <li>• Student Selected (1)*</li> </ul> Advanced Studies Diploma- only 4 verified credits required: <ul style="list-style-type: none"> <li>• English (1)</li> <li>• Student Selected (3)*</li> </ul>			All diploma requirements effective with students who entered ninth grade for the first time in the 2018-2019 school year and thereafter <b>EXCEPT:</b>  Standard and Advanced Studies Diploma- only 2 verified credits required: <ul style="list-style-type: none"> <li>• English (1)</li> <li>• Student Selected (1)*</li> </ul>	

A student entering a Virginia high school for the first time:	Prior to 2018-19 school year:	2018-19 school year:	2019-20 school year:	2020-21 school year:	2021-22 school year and thereafter:
<b>At the beginning of twelfth grade</b>	All diploma requirements effective with students who entered ninth grade for the first time prior to the 2018-2019 school year EXCEPT: Standard Diploma- only 2 verified credits required: <ul style="list-style-type: none"> <li>• English (1)</li> <li>• Student Selected (1)*</li> </ul> Advanced Studies Diploma- only 4 verified credits required: <ul style="list-style-type: none"> <li>• English (1)</li> <li>• Student Selected (3)*</li> </ul>				All diploma requirements effective with students who entered ninth grade for the first time in the 2018-2019 school year and thereafter EXCEPT:  Standard and Advanced Studies Diploma- 2 verified credits required: <ul style="list-style-type: none"> <li>• English (1)</li> <li>• Student Selected (1)*</li> </ul>

\*Students entering a Virginia high school for the first time during the eleventh grade or at the beginning of the twelfth grade who are not enrolled in Algebra I are not subject to the federal mathematics testing requirement, and may use a student selected verified credit. Students entering a Virginia high school for the first time during the eleventh grade or at the beginning of the twelfth grade who are enrolled in Algebra I are subject to the federal mathematics requirement and shall take the SOL End-of-Course Algebra I test. However, if the student fails the SOL End-of-Course Algebra I test, the student may use a different subject or the student's own choosing to earn the verified credit for graduation.

**During Twelfth Grade** – Students will be given every opportunity to earn a Virginia diploma; if this is not possible, the school division will arrange to have the previous school award the diploma, or seek a waiver of the verified credit requirement.

## Graduation

### **Superintendent's Certification for Graduation Eligibility**

Students will be certified for graduation when they have completed the graduation requirements of WJCC and/or program for which diplomas are given as prescribed by the Virginia Board of Education. Students must meet the appropriate verified credit requirements set forth by the Virginia Board of Education and WJCC Public Schools. All students will be reviewed for on-time graduation expectations each semester. Approved summer school courses may be applied toward meeting graduation requirements. The review of all candidates will occur by the superintendent, or designee, and follow the Commonwealth's expectations for the awarding of a diploma. The superintendent, or designee, is responsible for certifying eligibility for graduation in accordance with minimum standards established by the Commonwealth of Virginia. Student progress shall be reviewed by the superintendent or designee to determine whether graduation requirements have been met.

## Diploma Seal Recognition

The Standards for Accrediting Schools in Virginia establish high school graduation requirements and certain diploma seal recognitions. In addition, WJCC offers the Honors Program Seal.

**State Board of Education Seal** – Students who earn a Standard Diploma with an average grade of "A" or better will receive the State Board of Education Seal on the diploma.

**Governor's Seal** – Students who earn an Advanced Studies Diploma with an average grade of "B" or better and complete at least one Advanced Placement (AP) or college level course for credit will receive the Governor's Seal on the diploma.

**State Board of Education's Career & Technical Education Seal** – Students who earn a Standard or Advanced Studies Diploma and complete a prescribed sequence of courses in a career/technical education concentration AND maintain a "B" average in those courses, OR pass a certification examination, OR acquire a professional license will receive the State Board of Education Career & Technical Education Seal on the diploma.

**State Board of Education's Seal for Science, Technology, Engineering and Mathematics (STEM)** – Students who earn either a Standard Diploma or Advanced Studies Diploma and complete all Math and Science requirements for the Advanced Studies diploma with a "B" average in those courses; AND successfully complete a 50 hour or more work-based learning opportunity in a STEM area; AND complete all requirements for a Career and Technical Education concentration; AND pass one of the following: a Board of Education CTE STEM-H credential examination, OR an examination approved by the Board that confers a college-level credit in a STEM field. This seal is available to graduating seniors in the Class of 2019 and beyond.

**State Board of Education's Seal for Excellence in Science and the Environment** – Students who earn either a Standard Diploma or Advanced Studies Diploma and: complete at least three different first-level board-approved laboratory science courses and at least one rigorous advanced-level or postsecondary-level laboratory science course, each with a grade of "B" or higher; AND complete laboratory



or field-science research and present that research in a formal, juried setting; AND complete at least 50 hours of voluntary participation in community service or extracurricular activities that involve the application of science (e.g., environmental monitoring, protection, management, or restoration). This seal is available to students who entered the ninth grade for the first time in the 2018-2019 school year and thereafter.

**State Board of Education's Advanced Mathematics & Technology Seal** – Students who earn a Standard or an Advanced Studies Diploma and satisfy all of the mathematics requirements for the Advanced Studies Diploma and maintain a “B” average in those courses AND EITHER pass a certification examination from a recognized industry, trade or professional organization, or acquire a professional license in a career/technical area, OR pass an exam approved by the Board that confers college-level credit in a technology or computer science area will receive the State Board of Education Seal of Advanced Mathematics & Technology on the diploma. This seal will be available to seniors through the graduating class of 2021.

**State Board of Education's Excellence in Civics Education Seal** – Students who earn a Standard or an Advanced Studies Diploma AND complete Virginia and U.S. History and Virginia and U.S. Government with a grade of “B” or higher AND complete 50 hours of voluntary participation in community service or extracurricular activities (e.g., volunteering for an organization that provides services to the poor, sick, less fortunate, OR participating in Boy Scouts, Girl Scouts, and similar organizations; in political campaigns or government internships, Boys State, Girls State, Model General Assembly; and/or in school-sponsored extracurricular activities that have a civic focus), OR enlist in the United States military prior to graduation; AND have good attendance with no disciplinary infractions as determined by local school board policy receive the State Board of Education Seal for Excellence in Civics Education on the diploma.

**State Board of Education's Biliteracy Seal** – Students who earn a Board of Education-approved diploma and (1) pass all required End-of-Course Assessments in English reading and writing at the proficient or higher level; and (2) be proficient 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 are eligible to apply for and receive the State Board of Education's Biliteracy Seal on their diploma.

**Williamsburg-James City County Public Schools Honors Seal** – Students who successfully complete the academic requirements, community service project, and individual honors project shall receive the WJCC Honors Seal.

Williamsburg-James City County Public Schools expects that students enrolled in a WJCC high school for at least the last two years of high school will successfully complete course work in preparation for post-secondary education and/or be a CTE Completer and earn a diploma.

## Earning College Credits in High School

WJCC provides college readiness curriculum to students through standard and honors level courses. In addition, students may take advantage of opportunities to earn college credit while enrolled in high school through **Advanced Placement (AP), Dual Enrollment,** and **Concurrent College Enrollment** and through select courses taken at **New Horizon's Career & Technical Education Center** and **New Horizon's Governors School for Science and Technology.**

### Advanced Placement (AP)

The Advanced Placement (AP) program provides rigorous academic coursework in the major subject fields, with course content designed at the college level. AP courses are open to any student who is interested in academic rigor and meet course pre-requisites.

Credit Earned: Students earn a high school credit\* by passing the AP course. Students may also earn college credit by taking the AP exam and earning a specific score that is determined by each individual college.

- The AP transfer policy for four-year Virginia public colleges and universities can be viewed at the following link: [http://research.schev.edu/enrollment/b10\\_partc.asp](http://research.schev.edu/enrollment/b10_partc.asp)
- The AP transfer policy for Thomas Nelson Community College can be viewed at the following link: <https://tncc.edu/sites/default/files/content-documents/Advanced-Placement-AP.pdf>
- For information on other colleges or universities, please check their websites.

### Dual Enrollment

Dual Enrollment allows qualified students to enroll in college coursework while still in high school through a division-wide agreement with Thomas Nelson Community College (TNCC). Dual Enrollment courses become part of the permanent college transcript, and credit for Dual Enrollment courses is generally accepted at most Virginia private and public colleges. Students are responsible for verifying the transfer of college credits between TNCC and other colleges and universities as policies may vary. In order to complete Dual Enrollment coursework, students must: (1) Meet course prerequisites, and; (2) apply to TNCC and receive a TNCC student ID number, and; (3) successfully complete college placement tests or approved alternate assessment, and; (4) complete registration form with parent and principal signature.

In WJCC, students may participate in Dual Enrollment in one of three ways

- 1. In-School Dual Enrollment** – Eligible high school juniors and seniors take Dual Enrollment courses at the high school taught by a college-qualified WJCC teacher. WJCC pays student tuition and fees. Courses offered are limited based on instructor credentialing, existing course offerings, and student interest.

Credit Earned: Students earn a high school credit by passing the Dual Enrollment course, and 3 college credits from TNCC with transferability by earning a C or higher in the Dual Enrollment course.

**2. Career & Technical Education (CTE) On-Campus Dual Enrollment** – Eligible high school juniors and seniors take identified CTE Dual Enrollment courses not currently offered at the high school on the Thomas Nelson Community College Historic Triangle campus. Program enrollment capacities and any financial contribution toward the cost of college credit hours are set annually by WJCC.

Credit Earned: Students earn 1 high school credit for passing the Dual Enrollment course. College credit from TNCC with transferability by earning a C or higher in the dual enrollment course will vary depending on the course and is specifically identified in the course description.

**3. Early College Program** – Eligible seniors complete all high school diploma requirements, including College Comp I and II with a C or higher, by the end of the first semester of their senior year and then attend TNCC as a full-time student during the second semester. Program enrollment capacities and any financial contributions toward the cost of college credit hours are set annually by WJCC, and students are responsible for all fees associated with textbook and materials.

Credit Earned: Students earn 1 high school credit for passing College Comp I and II, and 6 college credits from TNCC with transferability by earning a C or higher in College Comp I and II (English 111 & 112). During the second semester, students earn 3 college credits from TNCC with transferability for each course they complete on the TNCC campus with a C or higher.

To learn about current Dual Enrollment options at your school, please contact your school counselor.

### **Concurrent College Enrollment**

Eligible high school juniors or seniors who have exhausted the available high school course offerings in a particular subject area may choose to take a 3-credit course from a college or university in that subject area for both high school and college credit. Students who wish to take a concurrent college course must seek permission from their high school prior to enrolling, and are responsible for completing all action items related to college course registration. These courses become part of the permanent college transcript, and students assume all costs associated with the course.

Credit Earned: Students earn a high school credit\* for passing the course taken from a college or university (see qualifiers above) by supplying an official college transcript prior to the end of the high school semester in which the concurrent college course is taken. Students taking a concurrent college course as part of the full-enrollment requirement who (1) drop the course and/or (2) do not supply an official transcript on time will receive an "F" on the high school transcript for that course. College credit earned is determined by each individual college and university.

**New Horizons Career & Technical Education Center** and **New Horizons Governor's School for Science & Technology** – please see page 65-68.

*\*All Advanced Placement (AP) courses and one Concurrent College Course per semester will be granted weight when calculating the final GPA. Concurrent College Courses excluded from weighting include all introductory courses and world languages that do not exceed the rigor of AP.*

## **Virtual Learning**

Virtual learning is a teaching and learning approach used in WJCC Public Schools where education takes place, at least in part, using computers, the Internet, and other technologies. Students can experience Virtual Learning in blended courses at the school or through a completely online experience. All virtual learning experiences take place with instruction from a licensed teacher.

**WJCC's Virtual Learning Program (VLP)** includes select courses delivered entirely online for first time credit and is available for students with scheduling conflicts or other specific scheduling needs. Depending on the course, class schedule, and method of delivery, students may work with online content during the school day or from a computer outside the building. Student work is completed through the WJCC-selected Learning Management System except for some labs, final exams, and End-of-Course SOL assessments, if applicable. A licensed teacher will facilitate all courses offered through the WJCC VLP. These courses are asynchronous, but not self-paced. Teachers provide structure and pacing guides for each course offering. Students desiring to work outside of school must have reliable internet access, but may contact their school if they need assistance obtaining internet access.

Counselors will discuss all current learning opportunities during individual student planning meetings with students. To determine if a student has the skills necessary to be successful in the virtual learning environment, he/she will take a survey for online learning readiness. Results of this survey must be shared with the school counselor and will be taken into consideration when enrollment decisions are made. For more information about the WJCC VLP, visit <https://wjccschools.org/academics/virtual-learning-program/>.

**Virtual Virginia** courses are available to WJCC students at no additional charge during the regular school year when courses are not offered face-to-face or in cases of extreme scheduling conflicts. Students assume all costs associated with Virtual Virginia courses taken over the summer session. For a full listing of Virtual Virginia courses and additional information, visit <http://www.virtualvirginia.org/>. Please work directly with your school counselor to register for any Virtual Virginia course.

**Multi-Division Online Providers (MOP)** – When appropriate, WJCC awards transfer credits/grades for online coursework from VDOE approved Multi-Division Online Providers (MOP). In order to locate an online course from an outside provider that will transfer, please visit [www.learn24va.org/](http://www.learn24va.org/) and confirm transferability with your school counselor.

## Commonwealth Innovation (CI) Courses

Commonwealth Innovation (CI) courses provide students with the opportunity to access traditional coursework by way of innovative teaching and learning approaches. Students who choose to participate in any of the CI courses offered at their high school will work in a collaborative setting that focuses on project-based and/or blended learning opportunities for each student. Some instruction will occur in a digital environment. Our hope is that every student attending a high school in WJCC Schools will enroll in at least one CI experience. CI offerings are as follows:

Course Title	Course Number	Recommended Grade Level	Page Number(s)
CI: English 9*, World History II, and Speech	981CI	9	28, 41
CI: Biology*, Art Foundations, and Computer Information Systems	986CI	9/10	38, 50, 58
CI: English 10* and Principles of Business & Marketing	985CI	10	29, 61
CI: World Geography and Probability & Statistics	982CI	10	36, 42
CI: Virginia & U.S. History and English 11*	987CI	11	29, 42
CI: Algebra, Functions, & Data Analysis (AFDA) and Physics	984CI	11	34, 40
CI: Biology II Anatomy & Physiology and Drawing	988CI	10-12	38, 50
CI: Virginia & U.S. Government, Law & Society, and Discrete Math	990CI	12	35, 43

\*Honors extension available

## Experiential Learning

### Independent Study Course (ISC) – Grades 11 and 12

#### ISPy

##### 1 Credit - Pass/Fail

The Independent Study Course (ISC) allows students the opportunity to pursue a topic of interest that is not currently offered within the school curriculum. Prior to the school year, the student must have submitted a proposal for review and presented to a division-based committee for approval. Once approved, the student will be engaged in research and activities that will lead to a minimum of one major product, two oral presentations, and two minor products. A limited number of proposals will be accepted. For more information, see the gifted resource teacher at your school.

### Internship – Grades 11 and 12

#### 6797

##### 1 Credit • Prerequisites: Application and Interview required

The Internship experience is a structured and supervised work experience that enables the student to practice and develop career-related skills in a particular industry or occupation related to the student's career interests, abilities, and goals. Students must complete an application and interview to participate. Internships can be paid or unpaid. Students must work a minimum of 280 hours to earn 1 credit. The Internship is a Pass/Fail course and is not factored into the student's cumulative grade-point average.

### Internship – Grades 11 and 12

#### 6797NC

##### Non-Credit • Prerequisites: Application and Interview required

The Internship experience is a structured and supervised work experience that enables the student to practice and develop career-related skills in a particular industry or occupation related to the student's career interests, abilities, and goals. Students must complete an application and interview to participate. Internships can be paid or unpaid. The non-credit Internship requires a minimum of 100 hours worked and will be noted under Achievements on the student's transcript.

## Specialty Programs

**Early College Program with Thomas Nelson Community College (TNCC)** – This program is offered to qualified high school seniors who are prepared and interested in accelerating their coursework toward a college degree after they graduate from high school. Accepted students complete all high school diploma requirements during the first semester of their senior year and then attend TNCC as a full-time student during the second semester. Students in this program have the potential to graduate from high school with a diploma and up to 19 college credits; Students are responsible for all fees associated with textbooks and materials. Program enrollment capacities and any financial contributions toward the cost of credit hours are set annually.

**Governor's Early College Scholar Program** – The Early College Scholars Program allows eligible high school students to earn at least 15 hours of transferable college credit while completing the requirements for an Advanced Studies Diploma. Participating students sign an Early College Scholars Agreement, and those who meet the terms of the agreement will receive a certificate of recognition from the governor designating Early College Scholars.

**English as a Second Language (ESL)** – This program is designed to support the language acquisition and academic growth of non-native English speakers through meaningful access to, and participation in, the same curriculum and instruction as their native English-speaking peers. English Learners are engaged in instruction across the four domains of language, including reading, writing, listening, and speaking. Students who receive ESL services and who are enrolled in verified credit courses must take the associated SOL tests, but may be provided accommodations to assist in overcoming language barriers.

**Gifted Program** – The Gifted Education Program serves identified academically gifted students in specific content areas of study. The student's academic, social, and emotional needs are addressed in mathematics, English and social studies classes where differentiated curriculum is integrated, accelerated, and rigorous and differentiated instructional strategies are implemented.

**New Horizons Career and Technical Education Center** – Courses at the Regional Education Center qualify students for post-secondary education or skilled employment after graduation. Courses are open to all rising eleventh and twelfth graders. Rising twelfth grade students considering attendance at New Horizons for the first time should seek a detailed explanation from their counselor. Most courses carry three credits per year for each of the one or two years of study and transportation will be provided to and from the center. Students are full-time Jamestown, Lafayette, or Warhill students, eligible to participate in school-sponsored activities including athletics and after-school clubs.

**New Horizons Governor's School for Science and Technology** – A two-year, half-day program for accepted eleventh and twelfth grade students. Accepted students will receive instruction both at their home school for two blocks and at the Governor's School for two blocks each day. Students select one of the following strands for their Governor's School experience: Computational Science & Engineering, Biological Sciences, or Engineering (please see the Governor's School for Science and Technology website to see the pre-requisite courses for each strand, <https://nhrec.org>). Each strand provides a unique emphasis on both the science subject matter and associated career fields. During senior year, students spend another five hours minimum a week in an after-school mentorship program conducting research, and all New Horizons Governor's School courses are yearlong courses.

**WJCC Honors Program** – The Honors Program allows students to take advantage of the extensive Advanced Placement offerings at the secondary level and to complete challenging, self-designed, community service and Honors projects. Students who successfully complete the expectations of the Honors Program receive Honors recognition. Participation in the Honors Program provides an advantage to students in the increasingly competitive college application process.

In addition to meeting the requirements of the Advanced Studies Diploma, candidates for the Honors Seal recognition must:

- Complete a minimum of five Advanced Placement (AP) courses, in three different content areas, with a grade of C or better
- Take at least five of the AP examinations associated with AP courses completed
- Complete a four-course sequence in one global language
- Design and complete a Community Service Project of at least 25 hours (see detailed description) (HPCS/2010/ 1 and 2)
- Design and complete an in-depth Honors Project (see detailed description)

Participants in the Honors Program must submit proposals to, and meet, with the division Honors Committee comprised of representatives from each high school and Central Office personnel. After receiving approval from the committee, students will work with the school's Honors Program Coordinator and with a mentor to successfully fulfill the requirements of the program. For more information about the Honors Program, please visit <https://wjccschools.org/academics/honors-program/>

**WJCC Learning Lab** – The Learning Lab is a non-traditional program for high school students who meet specific criteria. Students continue working toward their high school diploma through online coursework completed in a smaller classroom environment (compulsory attendance laws apply). For more information, contact your school counselor.

# Middle School Course Offerings & Descriptions

## ENGLISH

### English/Language Arts – Grade 6

**1109**  
The balanced literacy components of communication, reading, writing, and research are integrated into this sixth-grade course. These skills are taught within the framework of the Reading and Writing Workshop Model. Flexible grouping within each class provides the instructional arena for word study, composition, literacy understanding, and research/study skills. Grammar skills are sharpened as students write and publish regularly for a variety of purposes. In sixth grade, there is an emphasis on narrative and reflective writing. These experiences prepare students for the reading Virginia Standards of Learning (SOL) exam.

### Honors English - Grade 6

**1109-5**  
**Prerequisite: English/Language Arts 5**  
This course provides an opportunity for students to independently read a variety of fiction, narrative nonfiction, nonfiction, and poetry for appreciation and comprehension. Students will compare literary elements, participate in shared Inquiry discussions, formulate questions, build generalizations, and give academic responses to literature. Students will also plan, draft, revise, and edit narrative, descriptive, and expository writing with attention to composition and written expression as well as sentence formation, usage, and mechanics. Students will begin the study of word origins and continue vocabulary development. These experiences prepare students for the reading Virginia Standards of Learning (SOL) exam.

### English/Language Arts – Grade 7

**1110**  
Balanced literacy continues to be the philosophy that promotes the integration of communication, reading, writing, and research in this seventh-grade course. Students further develop their listening and oral communication skills in a variety of settings. Reading and writing continue to be taught through the Reading and Writing Workshops, which allow students to be engaged in individual, small group, and whole class exploration of authentic literature. Opportunities are provided to participate in genre studies, author studies, and thematic units. In seventh grade, students plan, draft, revise, and edit writing in a variety of forms with an emphasis on expository and persuasive writing. These experiences prepare students for the reading Virginia SOL exam.

### Honors English – Grade 7

**1110-5**  
**Prerequisite: English/Language Arts 6**  
Honors English 7 provides an in-depth study of seventh-grade literature with Socratic Seminar discussion groups and various writing formats. Critical thinking and analysis form the basis of this course. Students write often for different purposes and critique these pieces prior to publishing. Participation in writing contests is encouraged and oral presentations are an integral part of the course. These experiences prepare students for the reading Virginia SOL exam.

### English/Language Arts – Grade 8

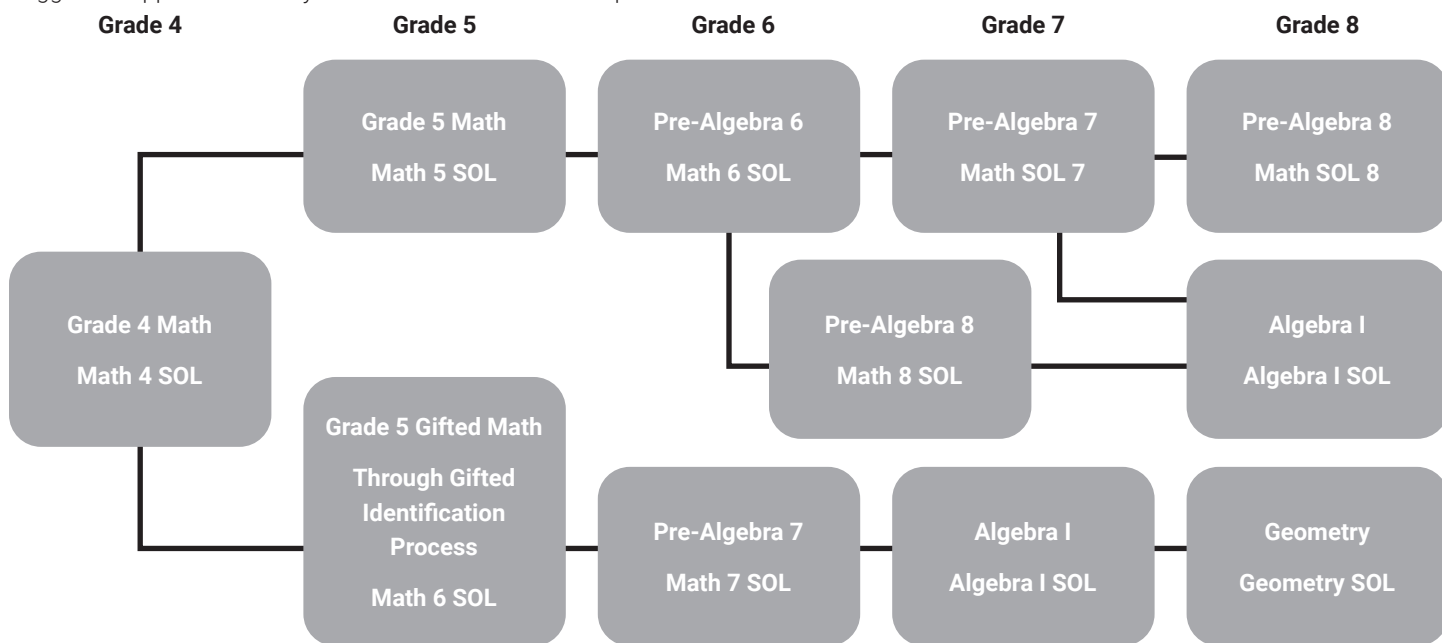
**1120**  
In eighth grade, students continue to build upon skills previously learned in earlier grades. There is a continued emphasis on reading comprehension by comparing fiction and nonfiction texts. Students continue to write in a variety of forms with an emphasis on expository and persuasive writing. Grammar and mechanics are reviewed within the context of writing. Oral skills are used in developing and making presentations. Attention is given to preparing students for the reading and writing components of the Virginia SOL exam.

### Honors English – Grade 8

**1120-5**  
**Prerequisite: English/Language Arts 7**  
The course is based upon, and follows, state and division curriculum guidelines for 8th grade English. This challenging class is designed to provide a rigorous course of study in the following language arts areas: high-level critical thinking, complex issues, conceptual learning, directed independent reading, writing preparation, and oral presentation. These experiences prepare students for the reading and writing components of the Virginia SOL exam.

# MATHEMATICS

Suggested Upper Elementary and Middle School Math Sequence



**All high school credit-bearing classes follow high school midterm and final examination tests and expectations.**

## Pre-Algebra 6

**3110-06**

This mathematics course will continue to build upon skills developed in the areas of whole numbers, decimals, and fractions. Ratios, proportions, and integers will be introduced to students to begin making the abstract connections in algebraic reasoning. Problem solving that applies to real-life situations is emphasized throughout the course and within each of the six content strands: number and number sense; computation and estimation; measurement; geometry; probability, statistics, and patterns; and functions with algebra. Manipulatives, calculators, and computers will be used where appropriate. Students enrolled in this course will take the Math 6 SOL assessment in the spring.

## Pre-Algebra 7

**3111-07**

This mathematics course will emphasize proportional reasoning and problem solving involving consumer applications. Properties of real numbers, solving linear equations and inequalities, and data analysis techniques will be studied. Problem solving that applies to real-life situations is emphasized throughout the course and within each of the six content strands: number and number sense; computation and estimation; measurement; geometry; probability, statistics, and patterns; and functions with algebra. Manipulatives, calculators, and computers will be used where appropriate. Students enrolled in this course will take the Math 7 SOL assessment in the spring.

## Pre-Algebra 8

**3112-08**

Students will refine skills introduced in Pre-Algebra 6 and 7 and be introduced to concepts and skills necessary for the Algebra I curriculum. Elements of the course include the language of algebra, formulas, solving equations and inequalities, probability and relations, functions, and graphs. Problem solving that applies to real-life situations is emphasized throughout the course and within each of the six content strands: number and number sense; computation and estimation; measurement; geometry; probability, statistics, and patterns; and functions. Algebra manipulatives, calculators, and computers will be used where appropriate. Students enrolled in this course will take the Math 8 SOL assessment in the spring.

## Algebra I

**3130**

**1 Credit - This is a high school credit-bearing course that will appear on the high school transcript.**

A strong foundation for academic mathematics is provided in this course. Students will use algebra and a graphing calculator as tools for representing and solving a variety of practical problems. This course will establish a working understanding of the terminology, notations, and symbolism of algebra. Topics include rational numbers, equations, inequalities, polynomials, factoring, rational expressions, graphing linear equations, systems of equations, and radical expressions. Students enrolled in this course will take the Algebra I End-of-Course SOL assessment in the spring to earn verified credit.

## Geometry

3143

**Prerequisite: Algebra I**

**1 Credit - This is a high school credit-bearing course that will appear on the high school transcript.**

This course is designed for students who have successfully completed Algebra I. The course includes the deductive axiomatic method of proof to justify theorems and tell whether conclusions are valid. Emphasis will be placed on two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. Students enrolled in this course will take the Geometry End-of-Course SOL assessment in the spring to earn verified credit.

## SCIENCE

### Science – Grade 6

4105

At this grade level, students will develop culminating experiences in the general sciences in preparation for content specialization during subsequent grades. Emphasis will be placed on student-oriented activities employing the components of scientific and engineering practices. Students will explore the characteristics of their world, from the Earth's placement in the solar system to the interactions of water, energy, air, and ecosystems on the Earth. As students more closely examine the use of resources, they also consider how their actions and choices affect future habitability on Earth.

### Life Science – Grade 7

4115

Life Science standards emphasize a more complex understanding of change, cycles, patterns, and relationships in the living world. Students will build on the basic principles related to these concepts, by exploring the cellular organizations and classification of organisms; the dynamic relationship among organisms in an ecosystem; and change as a result of the transmission of genetic information. Scientific and engineering practices are embedded throughout the year.

### Physical Science – Grade 8

4125

During the academic year, students will become actively acquainted with two of the physical sciences: chemistry and physics. Major areas covered by the standards include the particle nature of matter; the organization and use of the periodic table; physical and chemical changes; energy transfer and transformations; properties of longitudinal and transverse waves; electricity and magnetism; and work, force, and motion. Scientific and engineering practices are embedded throughout the year using systematic investigations with a clear focus on variables and repeated trials.

## SOCIAL STUDIES

### United States History to 1865 – Grade 6

2354

Students in sixth grade social studies focus on United States History to 1865. Major topics include the geographic regions, American Indians, European exploration, colonial America, the American Revolution, the early United States, westward expansion, and the Civil War era. Students examine the past through the lenses of civics, economics, and geography. Students learn about change and continuity in our history by examining a wide variety of primary and secondary sources that lay the foundation of American ideals and institutions. They learn about famous Americans, the daily lives of ordinary citizens in the past, and the causes and consequences of major events by applying the critical thinking skills used by actual historians. This course is based on Standards of Learning from the Virginia Department of Education

### United States History: 1865 to the Present – Grade 7

2355

Students in seventh grade social studies focus on United States History from 1865 to present day. Major topics include Reconstruction, post-Civil War industrialization, immigration, the Progressive Era, the two World Wars, the Cold War era, the Civil Rights Movement, and the modern United States. Students examine the past through the lenses of civics, economics, and geography. Students learn about change and continuity in our history by examining a wide variety of primary and secondary sources that lay the foundation of American ideals and institutions. They learn about famous Americans, the daily lives of ordinary citizens in the past, and the causes and consequences of major events by applying the critical thinking skills used by actual historians. This course is based on Standards of Learning from the Virginia Department of Education.

## Civics & Economics – Grade 8

2357

Students in eighth grade social studies conduct a focused, in-depth investigation of the structures and functions of America's government and economic systems. Students explore the characteristics of government at the federal, state, and local levels, including an analysis of historical roots, citizens' rights and responsibilities, the process of political decision-making, and aspects of the courts and legal systems. Students also study essentials of economics, highlighted by a comparative investigation of various economic systems, classic economic principles, how the U.S. economy works, and the relationship of government to the economy. This course is based on Standards of Learning from the Virginia Department of Education and prepares students for an SOL test on Civics and Economics.

## HEALTH & PHYSICAL EDUCATION

Physical education is designed to teach lifelong physical skills that promote a healthy level of fitness. The program offers a variety of individual and team activities that give students the opportunity to explore different pathways to good health. Students who are active are more likely to have a healthy level of fitness and perform better in school.

Adapted physical education will be provided to students with documented needs (i.e., IEP, Section 504 Plan, doctor's note).

### Health and Physical Education – Grade 6

7111

Curriculum units include aerobic dance, jump rope, cooperative games, volleyball, racket skills, soccer, basketball, frisbee activities, and personal fitness. For reasons of safety, students are required to wear appropriate clothing suitable for an activity class: shorts, crew neck T-shirt, socks and tennis shoes. All clothing must meet the school's dress code requirements.

Weekly units will also include a focus on career exploration and investigation, allowing students to identify their roles as workers, analyze their personal assets, explore career clusters, select career pathways or occupations for future study, and prepare for the creation of an Academic & Career Plan (ACP) based on their academic and career interests. The curriculum for health includes family life, sex education, personal safety, nutrition, and fitness. The major focus is to teach the middle school student how to be healthy and safe. The objectives for family life are outlined in the WJCC School Division's Handbook on Family Life and Sex Education. This course is taught by health and physical education teachers.

### Health and Physical Education – Grade 7

7121

Curriculum units include volleyball, basketball, cooperative games, pickleball, social dance, Ultimate Frisbee, personal fitness, biking, in-line skating, and fitness lab activities. For safety reasons, students are required to wear appropriate clothing suitable for an activity class: shorts, crew neck t-shirt, socks and tennis shoes. All clothing must meet the school's dress code requirements.

The goal of the study of health is to empower students to take control of their lifestyle and their personal choices. Curriculum units include fitness, nutrition, family life, personal choices and substance abuse. Fitness Lab curriculum includes core fitness, cardio training, and strength training.

### Health and Physical Education – Grade 8

7210

Curriculum units include volleyball, Tchoukball, pickleball, rhythmic patterns, speedball, biking, in-line skating, lacrosse, personal fitness, strength training, and fitness lab activities. For safety reasons, students are required to wear appropriate clothing suitable for an activity class: shorts, crew neck t-shirt, socks and tennis shoes. All clothing must meet the school's dress code requirements.

The goal of eighth grade health is to continue to help students make healthful decisions that enhance their wellness and safety. Curriculum units include personal fitness and nutrition, family life, and first aid and safety. Fitness Lab curriculum includes circuit training benefits, target heart rate, and interval training benefits.

## WORLD LANGUAGES

***All high school credit-bearing classes follow all high school midterm and final examination tests and expectations.***

### Introduction to World Languages – Grade 6

5001

This interactive and engaging course is designed to introduce students to customs, culture, and traditions of up to four languages including French, German, Latin, and Spanish. The basic language instruction will allow students to gain experiences in introductory conversational skills relevant to their daily lives. This will afford students the opportunity to compare and contrast the language studies to English, learn about the origins of those languages, and gain a deeper understanding of the cultural perspectives of the speakers of the presented languages. This course is formatted to encourage and support students in their pursuit of further language study.



**French I Sequence I (5104) – Grade 7 / French I Sequence II (5105) – Grade 8**  
**German I Sequence I (5204) – Grade 7 / German I Sequence II (5205) – Grade 8**  
**Spanish I Sequence I (5504) – Grade 7 / Spanish I Sequence II (5505) – Grade 8**

These courses are the beginning of a sequence of World Language study. **Successful completion of both the seventh grade sequence I and the eighth grade sequence II course is the credit equivalent of one full year of high school Level I World Language and will appear on the high school transcript.** The emphasis will be upon developing comprehension, listening, and speaking skills. In addition, beginning target language reading and writing skills will be taught. The courses will offer students a deeper understanding of the culture of the various countries in which the language is spoken.

**Latin I Sequence I (5304) – Grade 7 / Latin I Sequence II (5305) – Grade 8**

These courses provide students with the fundamental principles of the language as well as an understanding of the history, culture and mythology of the classical world. These provide the foundation and inspiration for many of the topics addressed in Social Studies, English and Fine Arts courses. The emphasis will be upon developing comprehension and critical thinking skills. Latin students can expect to see significant benefits in vocabulary growth, reading comprehension skills and pattern recognition. **Successful completion of both the seventh grade sequence I and the eighth grade sequence II course is the equivalent of one full year of high school Level I Latin and will appear on the high school transcript.**

**French I – Grade 8**

**5110**

**1 Credit - This is a high school credit-bearing course that will appear on the high school transcript.**

This course enables students to develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. The students will actively participate in contextualized activities and use all three communicative modes (Interpretive, Interpersonal and Presentational) to increase their ability to communicate orally and in writing. Emphasis is placed on comparing and contrasting the culture of French-speaking peoples with American culture.

**German I – Grade 8**

**5210**

**1 Credit - This is a high school credit-bearing course that will appear on the high school transcript.**

This course enables students to develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. Students will actively participate in contextualized activities and use all three communicative modes (interpretive, interpersonal, and presentational) to increase their ability to communicate orally and in writing. Emphasis is placed on comparing and contrasting the culture of German-speaking peoples with American culture.

**Latin I – Grade 8**

**5310**

**1 Credit - This is a high school credit-bearing course that will appear on the high school transcript.**

This course provides students with the fundamental principles of the language as well as an understanding of the history, culture and mythology of the classical world. These provide the foundation and inspiration for many of the topics addressed in social studies and fine arts courses. Emphasis will be upon developing comprehension and critical thinking skills. Latin students can expect to see significant benefits in vocabulary growth, reading comprehension skills, and pattern recognition.

**Spanish I – Grade 8**

**5510**

**1 Credit - This is a high school credit-bearing course that will appear on the high school transcript.**

This course enables students to develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. Students will actively participate in contextualized activities and use all three communicative modes (interpretive, interpersonal, and presentational) to increase their ability to communicate orally and in writing. Emphasis is placed on comparing and contrasting the culture of Spanish-speaking peoples with American culture.

\*Specific language offered will depend on enrollment

# FINE ARTS

## Art

### Art – Grade 6

#### **This class is delivered through the Exploratory Wheel (Exp6)**

Emphasis at this level is on use of design elements for expression and communication. A focus is on the role of art in world cultures and contemporary life.

### Art – Grade 7

#### **9104**

Visual communication, design principles and drawing are stressed at this level. Objectives reflect concern for realistic representation and an interest in contemporary issues.

### Art – Grade 8

#### **9115**

The elements and principles of design continue to be stressed at this level. Expression of feelings through art media and communication through mass media are also explored.

### Advanced Art – Grade 8

#### **9115ADV**

#### **Prerequisites: Art Grade 7 and recommendation of the Instructor**

This course is designed for advanced art students who are ready for high school level instruction. Students are introduced to the techniques and methods of creating and studying works of art. Fundamentals of pencil drawing and composition, color theory, and design in painting and printmaking are included. Ceramics, sculpture, crafts, art history, and career opportunities are explored. A sketchbook and notebook are required.

## Music

### General Music – Grade 6

#### **This class is delivered through the Exploratory Wheel (Exp6)**

Students will continue acquiring musical knowledge and skills by singing, playing instruments, performing rhythms, moving to music, composing, and improvising. Students explore music theory by reading and writing music notation representative of various musical styles and musical works. Students will demonstrate an understanding of music and its relationship to history, culture, and other fields of knowledge, and they become aware of the contribution of music to the quality of the human experience.

### Beginning Choir – Grade 6

#### **9269**

Students will develop musical knowledge and skills in the choral setting. Students begin to develop choral skills, including singing in unison and harmony, with emphasis on vocal production and technique. Students learn to read, write, and compose music, using basic music theory. They explore and perform music in a variety of music styles. In addition, students develop an understanding of acceptable concert etiquette. Students who demonstrate more advanced skills will have the opportunity to participate in sanctioned VMEA and/or ACDA choir activities (e.g., VA Honor Choir, District Assessment and Festival). All scheduled concerts and rehearsals are required for this course.

### Choir – Grade 7

#### **9270**

Students will build upon the skills and knowledge acquired at the beginning level. Students continue the development of vocal production techniques and ensemble participation. As students perform choral works and sight-read materials, they expand their performance abilities and creativity. Opportunities are provided for students to explore choral music as a means of expression and communication. Through the collaborative environment of the choral setting, students develop an understanding of teamwork and leadership skills. Students who demonstrate more advanced skills will have the opportunity to participate in sanctioned VMEA and/or ACDA choir activities (e.g., District Workshop Chorus, All-VA Honor Choir, District Assessment and Festival). All scheduled concerts and rehearsals are required for this course.

## **Choir – Grade 8**

**9271**

Students build upon the skills and knowledge acquired at the intermediate level. As students perform choral works and sight-read materials, they expand their performance abilities and creativity. Through the collaborative environment of the choral setting, students demonstrate teamwork and display leadership skills. They develop an understanding of and appreciation for vocal/choral music and its relationship to other disciplines. Students who demonstrate more advanced skills will have the opportunity to participate in sanctioned VMEA and/or ACDA choir activities (e.g., District Workshop Chorus, All-VA Honor Choir, District Assessment and Festival). All scheduled concerts and rehearsals are required for this course.

## **Beginning Choir – Grade 7 and Grade 8**

**8582 Grade 7**

**8583 Grade 8**

An exploratory class designed to help students obtain musical knowledge and skills for use in the choral setting, in preparation for them to participate in more advanced choral ensembles. Students begin to develop choral skills, including singing in unison and harmony, with emphasis on vocal production and technique. Students learn to read, write, and compose music, using basic music theory. They explore and perform music in a variety of music styles. In addition, students develop an understanding of acceptable concert etiquette. Students will actively sing in the choral classroom and attend school-based and extra-curricular performances.

## **Exploration of Guitar and Keyboard – Grade 7 or 8**

**9248**

Students have the opportunity to take this course once in EITHER Grade 7 or 8

Students will explore music concepts through experiences with the guitar, keyboard, and other instruments. Instruction emphasizes basic and intermediate technique, reading, progressions, and music theory. Instructional literature is selected from both classical and contemporary repertoires. Students who use WJCC instruments are assessed a fee per semester.

## **Beginning Band – Grade 6**

**9230**

This band course is designed for the beginning musician. The class includes three basic areas: brass, woodwinds, and percussion. Extracurricular music performance opportunities will be available to all students who demonstrate competence on a particular instrument. Students who use WJCC instruments are assessed a fee per semester.

## **Intermediate Band – Grade 6**

**Brass6**

**Percussion6**

**Woodwinds6**

**Prerequisite: Students must have played their instrument during 5th grade and/or audition**

This band course is designed for the continuing musician. The program includes three basic areas: brass, woodwinds, and percussion. Extracurricular music performance opportunities will be available to all students who demonstrate competence on a particular instrument. Students who use WJCC instruments are assessed a fee per semester.

## **Beginning Band – Grade 7**

**9231B**

This band course is designed for the beginning musician. The class includes three basic areas: brass, woodwinds, and percussion. Extracurricular music performance opportunities will be available to all students who demonstrate competence on a particular instrument. Students who use WJCC instruments are assessed a fee per semester.

## **Band – Grade 7**

**Brass7**

**Percussion7**

**Woodwinds7**

**Prerequisite: Band 6 or audition**

This course is designed to train a student to become a proficient musician on his/her individual instrument. The class includes three basic areas: brass, woodwinds, and percussion. Extracurricular music performance opportunities will be available to all students who demonstrate competence on a particular instrument. Students who have demonstrated advanced skills will have the opportunity to participate in sanctioned VBODA band activities (e.g., All-District Band, District Concert Band Assessment, District Jazz Ensemble Festival, and Solo & Ensemble). Students who use WJCC instruments are assessed a fee per semester.

## Band – Grade 8

**Brass8**  
**Percussion8**  
**Woodwinds8**

**Prerequisite: Band 7 or audition**

This course is designed to increase the proficiency of a musician on his/her individual instrument. The class includes three basic areas: brass, woodwinds, and percussion. Extracurricular music performance opportunities will be available to all students who demonstrate competence on a particular instrument. Students who have demonstrated advanced skills will have the opportunity to participate in sanctioned VBODA band activities (e.g., All-District Band, District Concert Band Assessment, District Jazz Ensemble Festival, and Solo & Ensemble). Students who use WJCC instruments are assessed a fee per semester.

## Beginning Orchestra – Grade 6

**9235B**

This orchestra course is designed for the beginning strings musician. This class includes the study of violin, viola, cello, and bass. Extracurricular music performance opportunities will be available to all students who demonstrate competence on a particular instrument. Students who use WJCC instruments are assessed a fee per semester.

## Intermediate Orchestra – Grade 6

**9235I**

**Prerequisite: Audition or consent of the Director**

This orchestra course is designed for the continuing strings musician. This class includes the continued study of violin, viola, cello, and bass. Extracurricular music performance opportunities will be available to all students who demonstrate competence on a particular instrument. Students who use WJCC instruments are assessed a fee per semester.

## Beginning Orchestra – Grade 7

**9236B**

This orchestra course is designed for the beginning strings musician. This class includes the study of violin, viola, cello, and bass. Extracurricular music performance opportunities will be available to all students who demonstrate competence on a particular instrument. Students who use WJCC instruments are assessed a fee per semester.

## Orchestra – Grade 7

**9236**

**Prerequisite: Orchestra 6 or audition**

This orchestra course is designed to train a student to become a proficient musician on his/her individual instrument. The class includes the study of violin, viola, cello, and bass. Extracurricular music performance opportunities will be available to all students who demonstrate competence on a particular instrument. Students who have demonstrated advanced skills will have the opportunity to participate in sanctioned VBODA band activities (e.g., District Orchestra, District Concert Assessment, Solo & Ensemble, etc.). Students who use WJCC instruments are assessed a fee per semester.

## Orchestra – Grade 8

**9237**

**Prerequisite: Orchestra 7 or audition**

This orchestra course is designed to increase the proficiency of a musician on his/her individual instrument. The class includes the study of violin, viola, cello, and bass. Extracurricular music performance opportunities will be available to all students who demonstrate competence on a particular instrument. Students who have demonstrated advanced skills will have the opportunity to participate in sanctioned VBODA band activities (e.g., District Orchestra, District Concert Assessment, Solo & Ensemble, etc.). Students who use WJCC instruments are assessed a fee per semester.

## Theatre

### Exploration of Theatre Arts – Grade 6

**This class is delivered through the Exploratory Wheel (Exp6)**

This course allows students to explore theatre as a collaborative art that fosters confidence, creativity and spontaneity. Students will incorporate the skills of speech, art, basic acting skills, music, movement, basic theater terminology, and literature.

### **Theatre Arts – Grade 7**

**1400**

This course focuses on the acting skills necessary to communicate a story and character to an audience. The culmination of this course may be a public performance.

### **Theatre Arts Production – Grade 8**

**1401**

Students build ensemble skills, focus on psychological and emotional dimensions of characters, perform scripted works and explore theatrical design concepts.

### **Advanced Theatre Arts Production – Grade 8**

**1392**

**Prerequisite: Theatre Arts Grade 7**

As an extension of previous learning, students build ensemble skills, focus on the psychological and emotional dimensions of character, perform scripted works and explore theatrical design concepts. They will refine their analytical, collaborative, problem-solving, and critical-thinking skills to make artistic decisions and present a unified production. This course prepares students for theatre arts studies at the high school level.

## **CAREER AND TECHNICAL EDUCATION (CTE)**

### **Technology Education**

#### **Introduction to Technology – Grade 6**

**This class is delivered through the Exploratory Wheel (Exp6)**

Students study the resources of all technology, including tools, energy, materials, people, time, information, and capital. This also includes the problem-solving process and various hands-on activities. Students explore up to six systems of technology, including medical, agricultural and related biotechnologies, energy and power, information and communication, transportation, manufacturing, and construction. Students relate the impact of technology on society, environment, and culture to future consequences and decisions

#### **Inventions & Innovations – Grade 7**

**8461**

Students make models of significant inventions that have advanced society. After studying these developments, they explore contemporary technological problems facing them, their community, or the world and apply a systematic procedure to invent new products or innovations as solutions.

#### **Technological Systems – Grade 8**

**8463**

Students combine resources and techniques to create systems, attaining comprehension of how technological systems work. Students will explore, design, analyze, and evaluate technological systems. By simulating systems and assessing their impacts, students gain insight into how to approach the problems and opportunities of a technological world. Students may be required to complete projects such as designing and building a model race car, drafting house plans, wiring circuits, using lasers to communicate across space, recording a radio broadcast, and using computers and robots to manufacture an object. Students will also explore technology-oriented careers.

# High School Course Offerings & Descriptions

## ENGLISH

Suggested Core Course Sequence

Grade	Course	Course	Course	Course	Course
9	English 9	Honors English 9	Commonwealth Innovation - English 9, World History II & Speech	–	–
10	English 10*	Honors English 10*	Commonwealth Innovation - English 10* & Principles of Business Marketing	–	–
11	English 11*	Honors English 11*	Commonwealth Innovation - English 11* & VA/US History	AP English Language & Composition	–
12	English Literature 12	Advanced World Literature	AP English Literature & Composition	AP English Language & Composition	Capstone English 12

\*There is a Virginia Standards of Learning (SOL) exam or End-of-Course assessment associated with this course.

### English 9

1137

**1 Credit • Prerequisite: English 8**

English 9 focuses on the analysis and interpretation of literature. This course introduces a wide variety of reading, writing, and speaking activities that require the ability to work both independently and cooperatively. Papers, projects and reading assignments will be literature based. Students will read world literature, will use the writing process to create papers in a variety of modes, and will be required to prepare and present informal and formal oral presentations.

### Honors English 9

1139

**1 Credit • Prerequisites: English 8**

Honors English 9 is an advanced course designed to prepare and challenge enthusiastic ninth grade students. This course focuses on critical analysis and in-depth interpretation of complex literature for college-bound students. Students will analyze and sharpen writing skills with a focus on the expository mode. This rigorous course will allow students to select a tenth grade course responsibly.

### Commonwealth Innovation (CI) - English 9\*, World History II, and Speech – Grade 9

981CI

**1 Credit English (English 9)** *\*Honors English 9 extension available*

**1 Credit Social Studies (World History II)**

**1 Credit Elective (Speech)**

This interdisciplinary, co-taught course will encourage and enable students to participate in sustained, collaborative inquiry within a global context. Students will reflect upon the orientation of humanities topics in space and time and produce genuine solutions to real-world issues on community, national, and global scales. Students will research, write, and deliver personal, informative, persuasive, and impromptu speeches as well as conduct interviews, prepare interpretive readings, and learn storytelling. Students should have computer skills capable of independent research to complete group-based, project-based learning. Students in this course will prepare to take the World History II SOL assessment at the end of the course.

### English 10

1147

**1 Credit • Prerequisite: English 9**

English 10 focuses on the analysis and interpretation of literature. Students will read and analyze a variety of literary genres and continue to develop oral communication skills. An emphasis is placed on research skills and organized, effectively developed expository writing.

## Honors English 10

1144

**1 Credit • Prerequisites: English 9**

Honors English 10 is an advanced course designed to prepare and to challenge enthusiastic tenth grade students. This course focuses on critical analysis and in-depth interpretation of complex literature for college-bound students. Students will analyze a variety of literary genres, complete supplemental readings, develop Paideia skills, and sharpen writing skills with a focus on the expository mode. This rigorous course will allow students to select an eleventh grade course responsibly.

## Commonwealth Innovation (CI) - English 10\* and Principles Of Business & Marketing

985CI

**1 Credit English (English 10)** \*Honors English 10 extension available

**1 Credit CTE (Principles of Business & Marketing)**

**Prerequisite: English 9**

The real-world impact of technology, effective communication, and interpersonal skills is evident throughout this course. There is a sustained emphasis on reading comprehension by comparing fiction and nonfiction texts and students will analyze the cultural and social functions and universal themes of fictional texts from different cultures. Students will discover the roles of business and marketing in the free enterprise system and the global economy. Students will use multimodal tools to create presentations both independently and in small groups, and will continue to build research skills presenting information gathered from diverse sources, identifying misconceptions and possible bias while citing in MLA or APA style. Students in this course will prepare to take the Writing SOL assessment at the end of the course. Students may also earn an Industry Credential at the conclusion of this course by taking the Workplace Readiness Skills assessment.

## English 11

1157

**1 Credit • Prerequisites: English 9 & 10**

English 11 prepares students for post-secondary education or for immediate entry into the work force. Students will trace the development of American literature from the 1600s to the present. Emphasis will be placed on logical analysis of arguments, use of propaganda in the media, and persuasive writing. Students will write cited research papers dealing with issues, problems, or questions. Group work, library research, and oral presentations are also required.

## Honors English 11

1152

**1 Credit • Prerequisites: English 9 & 10**

Honors English 11 is an advanced course in American literature that draws upon material from the colonial period to the present day. An in-depth study on selected major American writers and works of others who have profoundly influenced the development of our national literature are also analyzed. Research for themes that reflect uniquely American ideals and values are discussed along with understanding the meaning and concept of the "American Dream." Exploration and the expressing of complex questions and the importance of individual moral choice and responsibility to the larger human community are also examined. Through the study of literature, students will achieve a better understanding of themselves and our national character. Extensive reading is required.

## Commonwealth Innovation (CI) - Virginia & U.S. History and English 11\*

987CI

**1 Credit Social Studies (Virginia & U.S. History)**

**1 Credit English (English 11)** \*Honors English 11 extension available

**Prerequisite: English 9 & 10**

This interdisciplinary, team-taught course is designed to engage students in a thorough study of American History and the arts using project-based learning. Through the interrelationships of the humanities; fine arts; and the social, intellectual, and political history of the United States, students explore and examine topics using a thematic approach. A variety of individual and groups creative assignments will be completed with an emphasis on creative thinking, critical thinking, communication, and collaboration. Reflection, feedback, and revision are essential parts of this course. Students in this course will prepare to take both the Reading SOL and the Virginia & US History SOL assessments at the end of the course.

## English Literature 12

1161

**1 Credit • Prerequisites: English 9, 10 & 11**

This course is designed for both college or non-college bound students. The course focuses on modern literature and the relevance of classic works to contemporary issues. Readings, discussions, group projects, and written responses build an understanding of human reactions and allow students to share opinions, develop alternatives for handling conflict, and relate events and images in literature to their own lives. Students complete senior research papers and an oral presentation.

## Advanced World Literature 12

1190

**1 Credit • Prerequisites: English 9, 10 & 11**

This course provides college preparatory work for students who appreciate meaningful and challenging literature from many cultures and time periods. Assignments require in-depth analysis and application of literary works to contemporary life through discussions, writings, and independent and/or group work. Students must complete senior research papers and independent reading projects with oral presentations.

## English 12 Capstone

1163

**1 Credit • Prerequisite(s): English 9, 10 & 11**

This course contains high-interest contextualized content designed to give students an additional boost for competent and successful entry into college and careers. The course will add to students' preparation for critical reading, college and workplace writing, and career-ready communications by enhancing skills in reading, the writing process, and creation of effective texts, and effective communications (speaking, listening, and collaborating). This course will augment skills in critical reading; critical writing; the fundamentals of academic writing; and exposition, persuasion, and argumentation. Through the writing process, students will refine topics; develop and support ideas and hypotheses; investigate, evaluate, and incorporate appropriate resources; edit for effective style and usage; and determine appropriate approaches for a variety of contexts, audiences, and purposes. Students will work both face-to-face and through an online platform in order to communicate, collaborate, critically think, and create.

## Advanced Placement English Language and Composition

1196

**1 Credit • Prerequisites: English 9 & 10**

**NOTE: This class may also be offered in the dual enrollment format.**

This college-level composition class in non-fiction writing requires weekly research-based writing assignments. Assignments include narration, analysis, and argumentative essays as well as news, feature, and in-depth stories requiring interviewing and observation. Major fiction works will be studied as independent work. This course prepares students for the AP Language and Composition examination

## Advanced Placement English Literature and Composition

1195

**1 Credit • Prerequisites: English 9, 10 & 11**

This college-level course emphasizes language, themes, structures, and values through intensive study of numerous literary genres and periods. Oral and written compositions, including personal, creative and analytical pieces, require the structuring of ideas and writing style development. Students test their responses to literary works against their peers and literary critics. The course prepares students for the AP Literature and Composition examination. Extensive summer reading and writing are required.

## College Composition I & II

12ECP

**1 Credit (English)**

**6 College Credits from TNCC with transferability by earning a C or higher**

**Prerequisite: English 9, 10, & 11 and acceptance into Early College Program with TNCC**

**This course is Dually Enrolled with Thomas Nelson Community College (TNCC)**

This course introduces students to critical thinking and the fundamentals of academic writing. Through the writing process, students refine topics: develop and support ideas; investigate, evaluate, and incorporate appropriate resources; and determine appropriate approaches for a variety of contexts, audiences, and purposes. Students will continue to develop college writing skills with increased emphasis on critical essays, argumentation, and research, developing these competencies through the examination of a range of texts about the human experience. Students will locate, evaluate, integrate, and document sources and effectively edit for style and usage.



The following courses are electives, and do not satisfy diploma requirements in the area of English.

### College Success Skills - Grade 12

0107TN

.5 Credit

1 College Credit from TNCC

**Corequisite: Enrollment into Early College Program with TNCC**

**This course is Dually Enrolled with Thomas Nelson Community College (TNCC)**

This online course assists students in the Early College Program in making a successful transition to their first semester at TNCC. The course provides students with the academic tools for success and teaches the skills of self-management and self-responsibility that relate to being a successful college student. Students will understand how to make responsible choices about their academic, personal, and career goals and will learn about TNCC policies, procedures, resources, curricular offerings, and the process of moving effectively through the educational system.

### Creative Writing

1171

1 Credit • Prerequisite: English 9

This course is a writing workshop. Students will write every day, and will explore different writing techniques and styles. Writing skills will be developed through pre-writing, editing, re-writing, and critiquing. As a community, students will learn a great deal about each other by writing across various modes of art-in-language.

### Independent Study Course (ISC) – Grades 11-12

ISPy

1 Credit - Pass/Fail

The Independent Study Course (ISC) allows students the opportunity to pursue a topic of interest that is not currently offered within the school curriculum. Prior to the school year, the student must have submitted a proposal for review and presented to a division-based committee for approval. Once approved, the student will be engaged in research and activities that will lead to a minimum of one major product, two oral presentations, and two minor products. A limited number of proposals will be accepted. For more information, see the gifted resource teacher at your school.

### Journalism I

1205

1 Credit • Prerequisite: English 9

Students are introduced to the exciting world of the print media. Journalism students will learn the basic skills of relaying information accurately and self-expression through print communication. Through this course, students will learn and practice journalistic skills used in reporting, writing, designing, and producing a publication. In addition, students will work on the student newspaper further developing their journalism skills; basic business management principles; and interpersonal relationships by working in collaborative groups. Students will have use of state-of-the-art computer-aided publishing tools and other hands-on production tools such as InDesign, Photoshop, and digital cameras. This course will serve as a learning workshop for students interested in working on the student newspaper and may provide students insight into college and career choices. Some out-of-class time may be required.

### Journalism II: Newspaper Production

1210

1 Credit • Prerequisite: Journalism I or teacher recommendation

Students who serve as editors and staff members of the school newspaper may enroll in Journalism II. Students will plan, report, write, edit, and produce the school newspaper in class and during after-school production sessions. Reporters will research and write all newspaper content and will use digital photography, Photoshop, InDesign, and other available technology for design and production.

### Journalism III: Newspaper Production

1211

1 Credit • Prerequisite: Journalism II

Students who serve as editors and staff members of the school newspaper may enroll in Journalism III: Newspaper Production. In addition to enhancing their skills as reporters, Journalism III provides students advanced opportunities for learning editorial leadership, developing a personal sense of professionalism, understanding the role of the newspaper in society, and becoming productive members of the newspaper staff. Students will plan, report, write, edit and produce the school newspaper in class and during after-school production sessions. Reporters will research and write all newspaper content and will use available technology for design and production.

## **Journalism IV: Newspaper Production**

**1212**

**1 Credit • Prerequisite: Journalism III**

Students who have successfully completed Journalism III and will serve as editors and staff members of the school newspaper may enroll in Journalism IV: Newspaper Production. Journalism IV students will serve as writing coaches, maestro team leaders, and editors, assuming total responsibility for newspaper production. They will also complete a required independent study project related to current issues in journalism. The course may be repeated for elective credit.

## **Mass Media: Yearbook Production**

**1223**

**1 Credit each time (may take up to 4 times) • Prerequisite: Honors English 9 or teacher recommendation**

This course will provide students with the opportunity to acquire and apply communication and technical skills in a real-world setting through work on production of the school yearbook. Students will strengthen their creative and critical thinking skills and use their knowledge of grammar and writing skills to produce the yearbook. Students will work independently and as part of an organized production staff for at least one semester. Students may take Mass Media for credit up to four times, with the expectation that students will enhance, refine, and expand their knowledge and technical skills, bringing to each new series a high level of expertise. Students choosing to take this course for the fourth time will take on leadership roles as editors, business managers, web masters, photography, and technology editors while peer teaching, delegating, leading, refining, and enhancing all aspects of the yearbook journalism process. These experienced yearbook journalism students will be provided an opportunity to design and publish the high school yearbook in a real world internship-like atmosphere.

## **Speech**

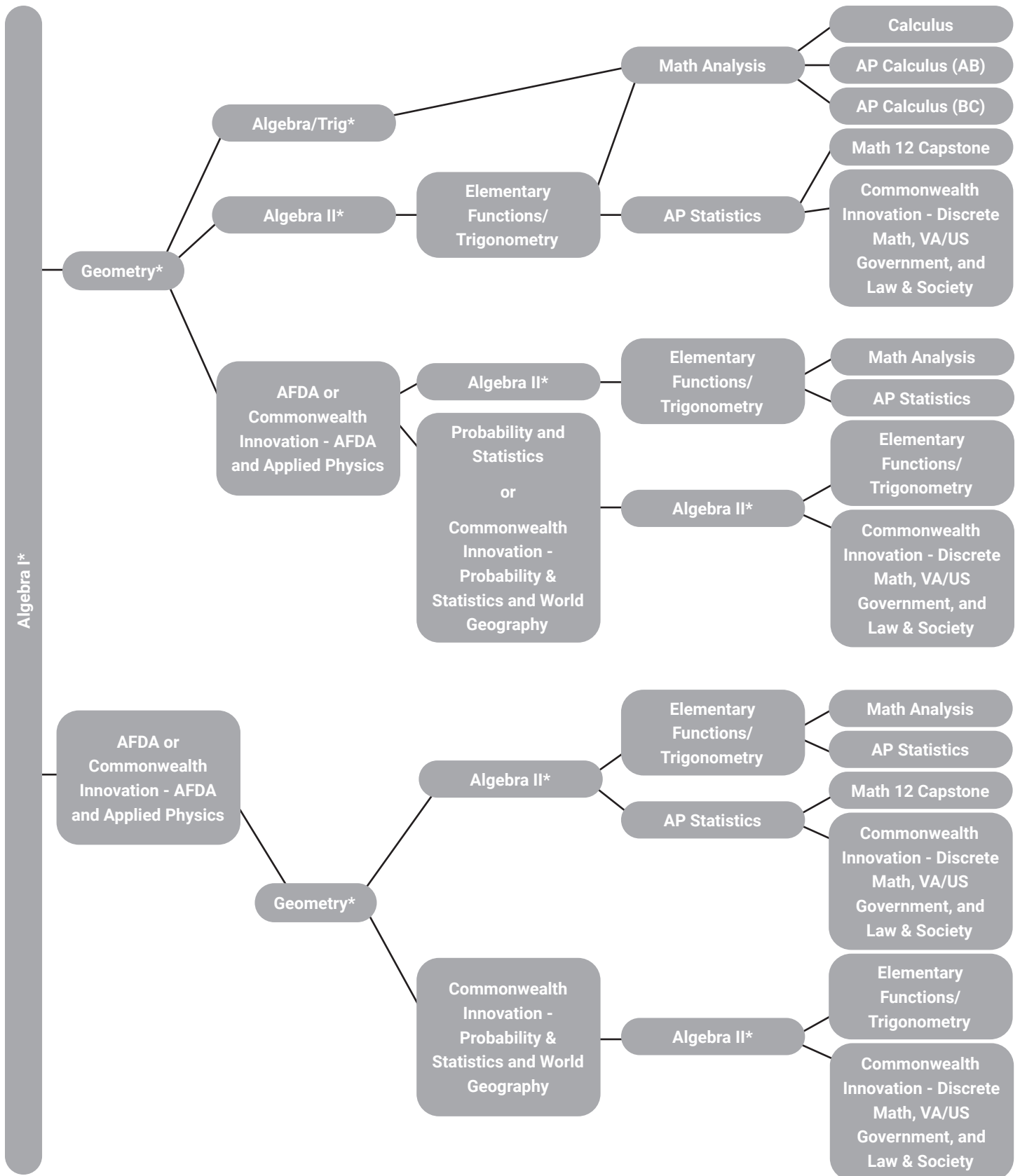
**1300**

**1 Credit**

Students will research, write, and deliver personal, informative, persuasive, and impromptu speeches as well as conduct interviews, prepare interpretive readings, and learn storytelling. All speech assignments are presented to a classroom audience and some are videotaped. Many speeches are research based and require written outlines, so students must be able to work independently in the library, conduct interviews, prepare interpretive readings, and learn storytelling.

# MATHEMATICS

## Suggested Core Course Sequences



\*Some students in these courses will take a Virginia Standards of Learning (SOL) exam.

## Algebra I

**3130-L & 3130-1**

**1 Credit Mathematics**

**1 Credit Elective**

**Corequisite: Concurrently enrolled in Algebra I Lab**

A strong foundation for academic mathematics is provided in this course. Students will use algebra and the graphing calculator as tools for representing and solving a variety of practical problems. This course will establish a working understanding of the terminology, notations, and symbolism of algebra. Topics include rational numbers, equations, inequalities, polynomials, factoring, rational expressions, graphing linear equations, systems of equations, and radical expressions. This course is paired with a required math lab to enhance a student's understanding of these abstract skills.

## Geometry

**3143-L & 3143-1**

**1 Credit Mathematics**

**1 Credit Elective**

**Prerequisite: Algebra I**

**Corequisite: Concurrently enrolled in Geometry I Lab**

This course is designed for students who have successfully completed Algebra I. The course includes, among other things, the deductive axiomatic method of proof to justify theorems to determine whether conclusions are valid. Methods of justification may include paragraph proofs, flow charts, two-column proofs, indirect proofs, coordinate proofs, verbal arguments, and formal proofs. Emphasis will be placed on two and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. A variety of applications and general problem-solving techniques will be used including algebraic skills. Graphing calculators will be used where feasible. This course is paired with a required math lab to enhance a student's understanding of these abstract skills.

## Algebra, Functions, and Data Analysis (AFDA)

**3134**

**1 Credit • Prerequisite: Algebra I**

Through mathematical modeling and data analysis, students will study functions and their behaviors, systems of inequalities, probability, and experimental design and implementation. Students will solve problems that require the formulation of linear, quadratic, exponential, or logarithmic equations or system of equations. Through the investigation of mathematical models, data analysis, and interpretation from real-life situations, students will strengthen conceptual understandings in mathematics and further develop connections between algebra and statistics. The infusion of technology (graphing calculator and/or computer software) in this course will assist in modeling and investigating functions and data analysis.

## Commonwealth Innovation (CI) - Algebra, Functions, & Data Analysis (AFDA) and Physics

**984CI**

**1 Credit Mathematics (AFDA)**

**1 Credit Science (Physics)**

**Prerequisite: Algebra I**

This interdisciplinary, co-taught AFDA/Physics course will investigate scientific method and data collection/analysis skills, linear functions and motion, projectiles and quadratics, energy and systems of equations, and logarithms and sound. In addition to traditional classroom learning, each unit will include a project that will utilize digital design tools to create three-dimensional models. This course is ideal for students who have interest in, or experience with, principles of engineering or engineering design.

## Algebra II

**3135-L & 3135-1**

**1 Credit Mathematics**

**1 Credit Elective**

**Prerequisite: Geometry**

**Corequisite: Concurrently enrolled in Algebra II Lab**

This course will cover advanced mathematical and algebraic concepts at a moderate pace. Topics include linear equations and inequalities; functions; systems of equations and inequalities; sequence and series; polynomials; and problem-solving rational expressions, radicals, irrationals, quadratic functions, complex numbers, conics, and polynomial functions. It is recommended that students have at least a "C" average in Algebra I and Geometry before proceeding to Algebra II.

## Algebra II/Trigonometry

3136

**1 Credit • Prerequisite: Algebra I and Geometry**

This course combines the content of Algebra II and Trigonometry and is taught at an accelerated pace. It provides the foundation for students to pursue a sequence of advanced mathematical studies from Mathematical Analysis to AP Calculus.

## Elementary Functions/Trigonometry

3166

**1 Credit • Prerequisite: Algebra II**

Functions/Trigonometry is a course for the college-bound student who may or may not pursue mathematics at the highest level. Topics include a brief review of algebra; in-depth coverage of families of functions; and an introduction to unit circle, trigonometric functions, and problem-solving using trigonometric concepts. Graphing materials will be used by students and teachers, when appropriate, to enhance understanding of applications.

## Math Analysis/Pre-Calculus

3161

**1 Credit • Prerequisite: Elementary Functions/Trigonometry**

For mathematically capable students who plan to continue in a field that emphasizes mathematics, science, engineering, etc. This course is an abstract, theoretical approach to formal mathematics that extends and unifies algebra, geometry, and trigonometry through analysis. Topics include real and complex number fields; polynomial, rational, algebraic, circular, logarithmic and exponential functions; the algebra of functions; analytic trigonometry; systems of equations and inequalities; matrices; sequences and series; polar equations; and limits. It is strongly recommended that students have a graphing calculator.

## Commonwealth Innovation (CI) - Virginia & U.S. Government, Law & Society and Discrete Math - Grade 12

990CI

**1 Credit Social Studies (Virginia & U.S. Government)**

**1 Credit Elective**

**1 Credit Math (Discrete Math)**

**Prerequisite: Virginia & US History and Algebra II**

This course is a co-taught, interdisciplinary course that will investigate how government, law, and mathematics interact to create a society. Students will examine policies and regulations, both historic and current, through the lens of civic rights and responsibilities. Students will apply discrete mathematics to democratic problems, determining whether a solution exists, how many solutions exist, and what the best solution may be. This course is ideal for students who have interest in politics and/or technology.

## Grade 12 Mathematics Capstone

3142

**1 Credit • Prerequisite: Algebra II or Algebra, Functions, and Data Analysis (AFDA); Student must have earned 2 verified credits in the area of Math**

Students will research, collect and analyze data; develop and support ideas and conjectures; investigate, evaluate, and incorporate appropriate resources; and determine appropriate problem-solving approaches and decision-making algorithms in a variety of real-world contexts and applied settings. The course will add to students' preparation for postsecondary education and the workforce by (1) enhancing skills in number and quantity, functions and algebra, geometry, and statistics and probability; (2) simultaneously reinforcing readiness skills and dispositions in adaptability and flexibility, creativity and innovation, leadership, teamwork, collaboration, and work ethic.

## Calculus

3175

**1 Credit • Prerequisite: Math Analysis/Pre-Calculus**

Calculus investigates fundamentals of the mathematics of change: limits, differentiation, and integration. Students will strengthen their understanding of functions as they study problems from geometric, numerical, and algebraic viewpoints. Applications relate derivatives and integrals to a variety of real-world situations. The course includes extensive use of graphing calculators.

## Advanced Placement Calculus – AB

3177

**1 Credit • Prerequisite: Math Analysis/Pre-Calculus**

AP Calculus AB is college-level mathematics for which many students will receive college credit according to their score on the AP exam. The AP syllabus for AB Calculus includes limits; derivatives and their applications; the Mean Value Theorem; the Fundamental Theorem of Calculus; the definite and indefinite integral; volumes of solids; differentiation and integration of logarithmic, exponential and trigonometric functions; and techniques of integration. Graphing calculators are required. Students are prepared for the AP Calculus AB examination.

## Advanced Placement Calculus – BC

3178

**1 Credit • Prerequisite: Math Analysis/Pre-Calculus**

This course covers the additional topics required for BC Calculus as stated in the AP syllabus for Calculus BC. These include techniques of integration, derivatives of vector and parametrically defined functions, area bounded by polar curves, improper integrals, sequences, and series. Students will be prepared for the Advanced Placement Calculus BC examination.

## Probability and Statistics

3191

**1 Credit • Prerequisite: Algebra II or Algebra, Functions, and Data Analysis**

This course will present fundamental concepts and tools for collecting, analyzing, and predicting based on data. The course focuses on the applications of probability, statistics, and logic in business, industry, science, and government and provides practical preparation for a wide variety of career fields.

## Commonwealth Innovation (CI) - Probability & Statistics and World Geography – Grade 10

982CI

**1 Credit Mathematics (Probability & Statistics)**

**1 Credit Social Studies (World Geography)**

**Prerequisite: Algebra, Functions, and Data Analysis (AFDA) or Algebra II**

This interdisciplinary, co-taught social studies/math course will encourage and enable students to explore human-environmental interactions, world conflicts, and current events through graphical and statistical analysis. A variety of individual and group assignments will be required. Students in the course will prepare to take the World Geography SOL assessment at the end of the course.

## Advanced Placement Statistics

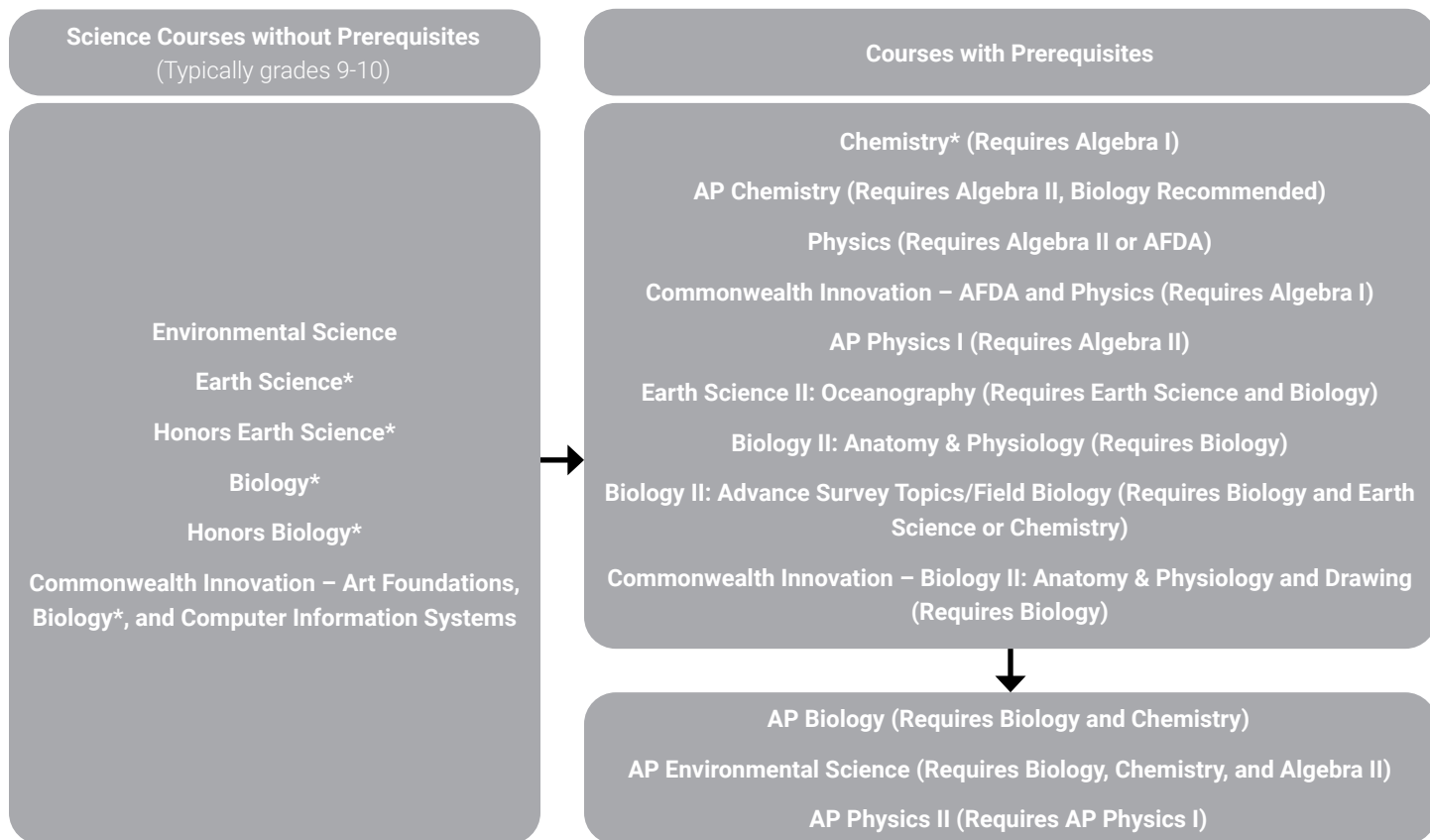
3192

**1 Credit • Prerequisite: Algebra II**

This college-level, introductory statistics course focuses on the major concepts and tools for collecting, analyzing, and reaching conclusions from data. The four main themes of the course are exploring data, planning a study, anticipating patterns, and making statistical inferences. Students will create and analyze data, consult, make decisions, and share results. The course is an excellent foundation for students pursuing careers in science, social science, mathematics, business, or engineering.

# SCIENCE

Suggested Course Sequence – Please refer to information within program of studies for graduation requirements and prerequisites.



\*There is a Virginia Standards of Learning (SOL) exam associated with this course.

**Alternatives to Animal Dissection: Students may complete an alternative to animal dissection. Please see your science teacher for additional information.**

## Environmental Science

4272

1 Credit

Environmental Science is an introductory science course that is intended to continue the student investigations that began in grades K-8. Students will focus on scientific inquiry, the physical world, the living environment, resource conservation, humans' impact on the environment, and legal and civic responsibility. Instruction will guide students through data collection and analysis with laboratory experiences, field work, and connections to local environmental community organizations.

## Earth Science

4211

### Honors Earth Science

4213

1 Credit

Earth Science is an introductory laboratory science course that covers astronomy, geology, oceanography, and meteorology. Investigations emphasize the social relevance of Earth Science ideas in such topics as pollution, weather control, nuclear testing, shrinking fossil fuel supplies, etc. An additional Honors Earth Science course is available for students with high interest and ability. This course has a Virginia SOL assessment.

## Earth Science II: Oceanography

4250

1 Credit • Prerequisites: Earth Science and Biology

Oceanography is a survey course that introduces students to the four broad disciplines of marine science: chemical, physical, geological, and biological oceanography. Building on knowledge gained in Earth Science I, students will investigate tectonic processes and their

role in shaping the ocean basins. Students will investigate the physical and chemical properties of the oceans and their interplay with the atmosphere, as well as their impact on coastal features and marine life. Emphasis will be placed on the Chesapeake Bay and its tributaries.

## **Biology**

**4311**

### **Honors Biology**

**4313**

**1 Credit**

Biology I is a laboratory science course in which students discover the parts and processes of living things and their interactions with each other through unifying concepts, such as cell structure and function, genetics, evolution, disease and wellness, and ecology. An additional Honors Biology course is available for students with high interest and ability. It is recommended that students have a "B" average or better in previous science courses prior to taking Honors Biology. This course has a Virginia SOL assessment.

## **Commonwealth Innovation (CI) - Art Foundations, Biology\*, and Computer Information Systems**

**986CI**

**1 Credit Fine Arts (Art Foundations)**

**1 Credit Science (Biology)** \*Honors Biology extension available

**1 Credit CTE (Computer Information Systems)**

This yearlong, interdisciplinary, team-taught course is designed to engage students using project-based learning. Students research and create group projects using interrelationships of the fine arts, science, technology, and entrepreneurship. Emphasis is on creative thinking, critical thinking, communication, and collaboration. Reflection, feedback, and revision are essential parts of this course. Students in this course will prepare to take the Biology SOL assessment at the end of the course. Students may also have an opportunity to pursue an Industry Credential by taking the Workplace Readiness Skills assessment at the conclusion of this course.

## **Biology II: Anatomy & Physiology**

**4331**

**1 Credit • Prerequisites: Biology**

Anatomy and Physiology introduces students to the structures and functions of the human body. The course focuses on each body system and the medical terminology associated with each system. This objective will be met through extensive laboratory investigations, including dissection of a representative mammal. These studies will provide an understanding of the interdependence of human body systems and provide a solid base for further studies and/or health care related career choices. It is recommended that students have a minimum grade of "C" in previous science courses and have taken chemistry.

## **Commonwealth Innovation (CI) - Biology II: Anatomy & Physiology and Drawing**

**988CI**

**1 Credit Science (Biology II: Anatomy & Physiology)**

**1 Credit Fine Arts (Drawing)**

**Prerequisites: Biology and Art Foundations**

This course introduces students to the structures and functions of the human body through a study of visual observation, stressing both technical skills and individual expression. The course focuses on each body system and the medical terminology associated with each system through the lens of a medical illustrator. These objectives will be met through extensive laboratory investigations, including dissection of a representative mammal. Students will use a variety of drawing medias (graphite, charcoal, pen and ink, watercolor washes, oil pastels) with a focus on understanding the human body and movement of the human form. These studies will provide an understanding of the interdependence of human body systems and provide a solid base for further studies and/or health care-related career choices. Art history and criticism are integrated with appropriate units of study. It is recommended that students interested in taking this course received a "C" or better in Art Foundations and in previous science courses.

## **Biology II: Advance Survey Topics/Field Biology**

**4319**

**1 Credit**

**Prerequisites: Biology & Earth Science or Biology & Chemistry**

Field Biology addresses the effect of the seasons on the natural world and teaches students about the many components of natural ecosystems utilizing field techniques to monitor and assess their health and status. Plant and animal identification are emphasized as well as chemical, physical, and biological tests of environments. Students experience fieldwork on a regular basis, going outside as often as the weather allows and the topic demands. Research projects involving data collection and analysis of results are a component of this course, thus requiring a competency in math. It is recommended that students have a minimum grade of "C" in previous science courses,



a love of the outdoors, and a willingness to go outside during any season.

### Advanced Placement Biology

**4380**

**1 Credit • Prerequisite: Biology and Chemistry**

AP Biology is the equivalent of a college-level Biology course. Instruction is focused on conceptual understanding that allows students to develop and the scientific reasoning skills necessary for designing and planning data collection, analysis, applying mathematical routines, and making connections across concepts. Topics of study include cell and molecular biology, energy relationships, structure and function of plants and animals, genetics, ecology, and evolution. This course is supplemented by selected readings in textbooks, periodicals, and laboratory investigations.

### Chemistry

**4409**

**1 Credit • Prerequisite: Algebra I**

Chemistry I is a laboratory course of inorganic chemistry suggested for the student planning to pursue a four-year college degree. A solid mathematical background is needed for solving word problems and analyzing laboratory data. Topics include atomic structure, bonding, chemical reactions, kinetic molecular theory, stoichiometry, and acid-base chemistry. It is recommended that students have a "C" in previous math and science courses and have passed Algebra, Functions & Data Analysis (AFDA) or Algebra II. This course has a Virginia SOL assessment.

### Advanced Placement Chemistry

**4411 & 4411-11**

**1 Credit Science**

**1 Credit Elective**

**Prerequisite: Algebra II (Biology is also highly recommended)**

**Corequisite: Student must be concurrently enrolled in AP Chemistry Lab**

AP Chemistry/AP Chemistry Laboratory is a daily course equivalent to the first year of college-level Introductory Chemistry. Upon successful completion of the AP Exam, students may receive up to two semesters of college credit. Instruction is focused on conceptual understanding that allows students to develop and the scientific reasoning skills necessary for designing and planning data collection, analysis, applying mathematical routines, and making connections across concepts. Topics of study include structure of matter, bonding and intermolecular forces, chemical reactions, kinetics, thermodynamics, and chemical equilibrium. This course includes a strong emphasis on laboratory investigations. Mathematic applications are a large component of the course. Students who have passed Functions/Trigonometry or are co-enrolled in Functions/Trigonometry tend to be more successful.

### Advanced Placement Environmental Science

**4270**

**1 Credit • Prerequisite: Biology, Chemistry, & Algebra II (Earth Science is also highly recommended)**

Students will explore and investigate the interrelationships of the natural world, identify and analyze environmental problems, both natural and human-made, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving and/or preventing them. This course is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography. The course will focus on a good comprehension and understanding of collecting data in the field and relating it to the human impact on the environment. Instruction will consist of lecture, discussion, hands-on lab work, collaborative group work, written reaction papers, demonstrations, in-class assignments, computer simulations, and homework. A large portion of the class will be lab work; all lab work will require a written component. A minimum of one class period or its equivalent per week is spent in laboratory and/or fieldwork.

### Physics

**4509**

**1 Credit • Prerequisite: Algebra II or AFDA**

This course provides a systematic introduction to the main principles of physics and emphasizes the development of conceptual understanding and problem-solving ability using Algebra. Topics include force and motion, energy transformations, wave phenomena and the electromagnetic spectrum, electricity, fields, and non-Newtonian physics.

## Commonwealth Innovation (CI) - Algebra, Functions, & Data Analysis (AFDA) and Physics

**984CI**

**1 Credit Mathematics (Algebra, Functions, and Data Analysis-AFDA)**

**1 Credit Science (Physics)**

**Prerequisite: Algebra I**

This interdisciplinary, co-taught AFDA/Physics course will investigate scientific method and data collection/analysis skills, linear functions and motion, projectiles and quadratics, energy and systems of equations, and logarithms and sound. In addition to traditional classroom learning, each unit will include a project that will utilize digital design tools to create three-dimensional models. This course is ideal for students who have interest in, or experience with, principles of engineering of engineering design.

## Advanced Placement Physics I

**4573**

**1 Credit • Prerequisite: Algebra II**

AP Physics I is an introductory, algebra-based Physics course equivalent to a first semester college level course. It is designed to develop advanced inquiry and scientific reasoning skills necessary for designing and planning data collection, analysis, applying mathematical routines, and making connections across concepts. AP Physics I introduces the main principles of physics: Newtonian mechanics; work, energy, and power; mechanical waves and sounds; and introduction to electric circuits. This course is supplemented by selected readings in textbooks and periodicals, and laboratory investigations.

## Advanced Placement Physics II

**4574**

**1 Credit • Prerequisite: Advanced Placement Physics I**

AP Physics II is the equivalent of a second semester algebra-based college level course. AP Physics is designed to develop advanced inquiry and scientific reasoning skills necessary for designing and planning data collection, analysis, applying mathematical routines, and making connections across concepts. AP Physics II concepts include fluid mechanics, thermodynamics, electricity and magnetism, optics, and atomic and nuclear physics. This course is supplemented by selected readings in textbooks and periodicals, and laboratory investigations.

# SOCIAL STUDIES

## Suggested Core Course Sequence

Grade	Course	Course	Course
9	World History & Geography I to 1500*	World History & Geography II: 1500 to Present*	Commonwealth Innovation - World History II*, English 9, and Speech
10	World Geography*	AP Human Geography*	Commonwealth Innovation - Probability & Statistics and World Geography*
11	VA & US History*	AP US History*	Commonwealth Innovation - VA/U.S. History* & English 11
12	VA & US Government	AP Gov't & Politics: U.S.	Commonwealth Innovation - VA/U.S. Government, Law & Society, and Discrete Math

\*There is a Virginia Standards of Learning (SOL) exam associated with this course.

### World History & Geography to 1500 (World History I) – Grade 9

**2219**

**1 Credit**

Students will explore early human societies beginning with hunters and gatherers; progressing through the rise and fall of major world empires including Egypt, Greece, Rome, and China; examining the Medieval Era; and concluding with the European Renaissance. Students will investigate similarities and differences among ancient river civilizations such as those along the Nile, Tigris-Euphrates, Huang He, and Indus Rivers. Students study the personalities who commanded great empires and explore the lives of everyday people. Varieties of resources are used to analyze events including art, music, literature, and technology. This course is based on Standards of Learning from the Virginia Department of Education and prepares students for an SOL test on World History and Geography to 1500.

\*Students may select either this course or World History and Geography: 1500 A.D. to the Present to fulfill their World History requirement. Only one of the two courses is required.

### World History & Geography: 1500 A.D. to the Present (World History II) – Grade 9

**2221**

**1 Credit**

Students will survey the past to understand people and their achievements from the late Renaissance to the modern era, including Western Civilizations, as well as those of Asia, Africa, and the Middle East. Topics include the Reformation, the Age of Discovery, the Industrial Revolution, World War I and II, the Cold War era, and contemporary times. Emphasis is placed on similarities, differences, changes, and why they occur in societies. Students will read about the personalities of well-known historical leaders and study the lives of everyday people. Students will use a variety of resources to analyze events including art, music, literature, and technology. This course is based on Standards of Learning from the Virginia Department of Education and prepares students for an SOL test on World History and Geography 1500 to Present.

\*Students may select either this course or World History and Geography to 1500 to fulfill their World History requirement. Only one of the two courses is required.

### Commonwealth Innovation (CI) - English 9\*, World History II, and Speech – Grade 9

**981CI**

**1 Credit English (English 9)** \*Honors English 9 Extension Available

**1 Credit Social Studies (World History II)**

**1 Credit Elective (Speech)**

This interdisciplinary, co-taught course will encourage and enable students to participate in sustained, collaborative inquiry within a global context. Students will reflect upon the orientation of humanities topics in space and time and produce genuine solutions to real-world issues on community, national, and global scales. Students will research, write, and deliver personal, informative, persuasive, and impromptu speeches as well as conduct interviews, prepare interpretive readings, and learn storytelling. Students should have computer skills capable of independent research to complete group-based, project-based learning. This course is based on Standards of Learning from the Virginia Department of Education and prepares students for an SOL test on World History and Geography 1500 to Present.

### World Geography – Grade 10

**2210**

**1 Credit**

World Geography is the study of the earth's physical features and their impact on human activity. A special emphasis is placed on cultural regions in Asia, Latin America, Africa, and the Middle East. Using a variety of tools and technologies, students will examine the five themes of geography (location, place, human-environment interaction, movement, and region) and analyze their impact on current global issues.

Hands-on activities will be used to analyze these issues, where students apply knowledge to propose ideas for solving local and global problems. This course is based on Standards of Learning from the Virginia Department of Education and prepares students for an SOL test on World Geography.

### **Commonwealth Innovation (CI) - Probability & Statistics and World Geography – Grade 10**

**982CI**

**1 Credit Social Studies (World Geography)**

**1 Credit Mathematics (Probability & Statistics)**

**Prerequisite: Algebra, Functions, and Data Analysis (AFDA) or Algebra II**

This interdisciplinary, co-taught social studies/math course will encourage and enable students to explore human-environmental interactions, world conflicts, and current events through graphical and statistical analysis. A variety of individual and group assignments will be required. Students in this course will prepare to take the World Geography SOL assessment at the end of the course.

### **Advanced Placement Human Geography – Grade 10**

**2212**

**1 Credit**

This advanced-level course is open to students in Grades 10, 11, or 12 and may be taken in place of the regular World Geography to meet the graduation requirements for social studies. Advanced Placement Human Geography is a rigorous examination of essential concepts in the field of Human Geography, accomplished through a challenging study of pressing contemporary issues related to population, organization of political boundaries, industrialization and economic development, cities and urban land use, and more. Data from organizations such as the Census Bureau, the World Bank, and the United Nations will be studied. Students participate in field studies, keep journals, and conduct original research; significant use of computer labs will be necessary. Strong writing and research skills are recommended for this course. This course is designed to prepare students for the Advanced Placement examination in Human Geography.

### **Virginia & U.S. History – Grade 11**

**2360**

**1 Credit**

Students will examine the American past from the Age of Exploration through the present day. Major topics of study include exploration and colonization, the American Revolution and the Constitution, the Early Republic, antebellum America, the Civil War and Reconstruction, the Gilded Age and Progressive Era, global expansion and World War I, the 1920s and the Great Depression, World War II, the Cold War era, and the modern United States. Engaging with a wide variety of primary and secondary sources, students hone their critical thinking skills and develop an understand of how events in American history shaped our current society, government, economy, and culture. This course is based on Standards of Learning from the Virginia Department of Education and prepares students for an SOL Test on Virginia and United States History.

### **Commonwealth Innovation (CI) - Virginia & U.S. History and English 11\***

**987CI**

**1 Credit Social Studies (Virginia & U.S. History)**

**1 Credit English (English 11)** \*Honors English 11 extension available

**Prerequisite: English 9 & 10**

This interdisciplinary, team-taught course is designed to engage students in a thorough study of American History and the arts using project-based learning. Through the interrelationships of the humanities; fine arts; and the social, intellectual, and political history of the United States, students explore and examine topics using a thematic approach. A variety of individual and groups creative assignments will be completed with an emphasis on creative thinking, critical thinking, communication, and collaboration. Reflection, feedback, and revision are essential parts of this course. Students in this course will prepare to take both the Reading SOL and the Virginia & U.S. History SOL assessments at the end of the course.

### **Advanced Placement U.S. History – Grade 11**

**2319**

**1 Credit**

This course focuses on developing student understanding of American history from approximately 1491 to the present. Students will investigate the content of U.S. history for significant events, individuals, developments, and processes in nine historical periods, and develop and use the same thinking skills and methods employed by historians when they study the past. The course also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places.

## Virginia & U.S. Government – Grade 12

2440

**1 Credit • Prerequisite: Virginia & U.S. History**

Virginia and U.S. Government emphasizes the function and theory of government and the principles on which the state and U.S. governments are based. These include constitutional principles such as the rights and responsibilities of citizenship, the political culture, the policy-making process at each level of government, and the operations of the U.S. market economy. U.S. foreign policy is examined as well as comparisons of American ideology with that of communism, socialism, and fascism. Current political problems at the national and state levels are discussed as an integral part of the course.

## Commonwealth Innovation (CI) - Virginia & U.S. Government, Law & Society and Discrete Math – Grade 12

990CI

**1 Credit Social Studies (Virginia & U.S. Government)**

**1 Credit Elective (Law & Society)**

**1 Credit Math (Discrete Math)**

**Prerequisite: Virginia & US History and Algebra II**

This course is a co-taught, interdisciplinary course that will investigate how government, law, and mathematics interact to create a society. Students will examine policies and regulations, both historic and current, through the lens of civic rights and responsibilities. Students will apply discrete mathematics to democratic problems, determining whether a solution exists, how many solutions exist, and what the best solution may be. This course is ideal for students who have interest in politics and/or technology.

## Advanced Placement Government & Politics: U.S. – Grade 12

2445

**1 Credit**

This is an advanced course available to seniors. The curriculum consists of a study of American Government that includes extensive reading assignments, knowledge and use of research tools, production of research paper(s), problem solving, and evaluation of information sources. The course fulfills the state requirement for graduation and is recommended for seniors seeking the challenge of a college-level course. This course is designed to prepare students for the Advanced Placement examination in United States Government.

**The following courses are electives and do not satisfy the diploma requirements in the area of Social Studies.**

## Advanced Placement European History

2399

**1 Credit**

Students investigate significant events, individuals, developments, and processes in four historical periods from approximately 1450 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing historical evidence; contextualization; comparison; causation; change and continuity over time; and argument development. The course also provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction of Europe and the world; poverty and prosperity; objective knowledge and subjective visions; states and other institutions of power; individual and society; and national and European identity.

## Advanced Placement Government & Politics: Comparative – Grade 11 & 12

2446

**1 Credit**

This is a challenging college-level course available to juniors and seniors. The curriculum consists of an in-depth, critical, examination of different governments including those of Great Britain, Russia, France, China, and Mexico. It includes extensive college-level writing and reading assignments, knowledge and use of research tools, production of formal research paper(s), problem solving, and reflective evaluation of information sources. The course is an elective course and does not fulfill the state requirement for graduation. This course is designed to prepare students for the Advanced Placement exam in Comparative Government.

## Advanced Placement Economics

2804

**1 Credit**

AP Economics is a college-level introductory course in the principles of economics. The challenging design of the course is recommended for students with a motivating interest in business administration or entrepreneurship. Emphasis will be on micro-and macroeconomics, the study of the 10 basic principles, buyer and seller market forces, the economics of the public sector, the behavior of firms, the

organization of industry, and the economics of labor markets. This course prepares students for the Advanced Placement examination in either Microeconomics or Macroeconomics.

### **African American History**

**2372**

**1 Credit • Prerequisite: World History & Geography to 1500 OR World History & Geography 1500 to the Present**

This course surveys the African American experience from pre-diaspora Africa through today. Topics include the Transatlantic slave trade, the role of slavery and race in the nation's founding, the abolitionist movement, the Civil War, emancipation, Reconstruction, the Jim Crow South, the Civil Rights Movement, and African Americans in the contemporary United States. The course is offered in a blended format, so students complete online modules in addition to face-to-face learning experiences. The course concludes with a capstone project, where students connect their knowledge about African American history to contemporary social, political, cultural, and economic questions.

### **Humanities: Global**

**1515**

**1 Credit**

This course explores the impact of technology on the social and cultural history of the modern world. Students working independently and in groups examine history and art to analyze and evaluate interconnecting events shaping contemporary society. Students will identify issues created by technology and work to suggest potential solutions. Students must possess strong writing, analytical, and critical thinking skills.

### **Humanities: United States**

**1516**

**1 Credit • Prerequisites: World History I or II and World Geography**

This course examines change in America at the turn of two centuries by analyzing and evaluating elements of 19th and 20th century society. Through an exploration of art, medicine, literature, music, and social trends students examine patterns and parallels reflecting the impact of technology on the social and cultural history of America.

### **Law and Debate**

**2421**

**1 Credit**

This course will introduce students to the federal and state judicial systems, Virginia state law, elements of law, speech and debate techniques, and civil and criminal law. The mock trial component will demand that students present their own prepared cases for court acting as attorneys, witnesses, and defendants.

### **Law and Society**

**2420**

**1 Credit**

This engaging course aims to promote a more detailed understanding of the laws, rules, and regulations that guide our contemporary society. Students will examine the inside workings of the American legal system in order to foster a more reflective and critical understanding of each citizen's role in a democratic society. It will offer practical applications for everyday life and allow active participation and field experiences with local agencies and the court system. Emphasis will be placed on civic responsibilities and rights.

### **Sociology**

**2500**

**1 Credit**

Sociology is the study of human behavior in society. The focus of this course is the shaping of human behavior by groups in society. The topics include personality development, deviance and crime, family, social class, gender, race, and social movements. There is also an emphasis on research techniques and current statistical data. This course provides students with a unique opportunity to view the institutions of American society from different sociological perspectives. This course is recommended for students who have completed a geography course.

### **U.S. and World Affairs**

**2810**

**1 Credit**

U.S. & World Affairs is an elective course that focuses on the relationships between national and international events while strengthening geography skills. Course topics include the roots of aggression, causes of wars, United Nations, and current world conflicts. Conflict

resolution, group work, and weekly current events are major components of the course.

### Advanced Placement Psychology

**2902**

**1 Credit**

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental process of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice.

## WORLD LANGUAGES

### World Language Sampler

**5002**

**1 Credit**

This course is a project-based, hands-on class that will provide basic language instruction in the languages presented. It will allow students to gain basic conversational skills about topics relevant to their daily lives. A minimum of two world languages will be presented. It will allow students to compare and contrast the languages studied with English, learn about the origins of various languages and gain an understanding of cultural perspectives. Languages may include Spanish, French, German, Latin, or other modern languages. Successful completion of this course fulfills the WJCC graduation requirement and provides an introduction that allows students to continue their study for credit in Level I of a world language.

### American Sign Language I

**5990**

**1 Credit**

Students will learn 1,000 signs and acquire knowledge of the manual alphabet. Students learn the language through lessons presented in context and through meaningful and experimental activities. Cultural awareness and cross-cultural adjustment skills are major components of this course. Students are introduced to Deaf culture, the history of American Sign Language (ASL) and the education of Deaf people. It is recommended that students have a "C" or above before proceeding to the next level.

### American Sign Language II

**5995**

**1 Credit • Prerequisite: American Sign Language I**

Students continue to increase their American Sign Language (ASL) skills. They will add to their vocabulary and increase proficiency in grammatical features and conversational skills. Knowledge of and sensitivity to the Deaf culture and community will continue to be emphasized. Students will be encouraged to interact with Deaf people in social contexts.

### American Sign Language III

**5997**

**1 Credit • Prerequisite: American Sign Language II**

Students will continue to add vocabulary and idiomatic expressions to their pre-existing vocabulary base. Language functions and increasingly difficult grammatical structures are learned in the context of everyday interactions and social relationships. Level III progresses to impersonal information, things that are not present, and abstract ideas. Role-play situations, which predict everyday deaf-hearing encounters, are used for the development of cultural awareness and cross-cultural adjustment skills. Students also investigate career opportunities associated with American Sign Language (ASL) and Deaf Culture.

### American Sign Language IV

**5998**

**1 Credit • Prerequisite: American Sign Language III**

Students engaging in this course will experience a more advanced study of American Sign Language (ASL). This class continues with an interactive approach: developing sign; improving expressive and receptive skills; and gaining more awareness of the Deaf community. This course builds on skills previously learned by adding more complex ASL grammatical features and vocabulary, short stories, narratives, and dialogues. A key goal for this course is for students to achieve a level of competency in ASL. Students will expand on their signing skills through debate, exchanging information, and expressing ideas, opinions, and preferences in front of an audience inside and outside of the classroom setting.

## French I

5110

1 Credit

This course enables the modern language student to develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. Students will actively participate in contextualized activities to improve all four language domains: listening, speaking, reading, and writing – focusing on the ability to communicate orally and in writing. Emphasis is placed on comparing and contrasting the culture of French-speaking peoples with American culture.

## French II

5120

1 Credit • Prerequisite: French I

Modern language students will continue to develop proficiency in all four language skills: listening, speaking, reading, and writing. Students will actively participate in contextualized activities and use all three communicative modes (interpretive, interpersonal, and presentational) to increase their ability to communicate orally and in writing. Students learn to function in real-life situations using more complex sentences and language structures. Familiarity with the culture of French-speaking peoples is increased through comparisons and connections to American culture.

## French III

5131

1 Credit • Prerequisite: French II

This course focuses on the use of the language for active communication. Emphasis is placed on developing comprehension, refining writing skills, increasing speaking facility, and introducing more complex structures. At this level, students comprehend the main ideas of the authentic materials that they read, hear, and are able to identify significant details when the topics are familiar. Modern language students will participate in contextualized activities that integrate all skills: listening, reading, writing, and speaking – and use all three communicative modes (interpretive, interpersonal, and presentational) to increase their ability to communicate orally and in writing. Students will explore the culture of French-speaking peoples through the use of video, authentic readings, and audio materials.

## French IV

5141

1 Credit • Prerequisite: French III

Modern language students will develop more advanced communication skills in all four areas: listening, speaking, reading, and writing with an emphasis on the ability to interact orally and in writing. Students communicate using more complex language structures and express abstract ideas with reasonable fluency. Students are able to create and listen with understanding to reports and presentations as well as describe, summarize, and discuss selected upper-level themes and topics. Students gain greater insights into culture through authentic reading selections at this level and will continue to be exposed to authentic materials in order to develop higher-level thinking skills in the target language. The primary language spoken at this level is French.

## Advanced French Conversation and Composition

5180

1 Credit • Prerequisite: French IV

This course will give the advanced student the opportunity to practice and perfect their practical abilities to speak and write in French and will stress oral and written communication and proficiency. Students will acquire information from authentic sources in French and will be asked to function in many authentic speaking situations in the class. Students will continue to develop strong communicative ability in French in (interpretive, interpersonal, and presentational) modes and strive to produce French comprehensible to native speakers in a variety of settings, discourse, topics, and registers.

## French Cinema

5185

1 Credit • Prerequisite: French IV

This course will provide students with the opportunity to study the history and development of the Francophone world through film. The actual study of the selected movies will expose the students to the history and techniques of French filmmaking (beginning with the Lumiere Brothers), to the culture of the Francophone world, to the historical perspective of modern French civilization, and to the language spoken by native speakers. An important component of this course is to integrate linguistic structures and vocabulary into the daily discussions and follow-up activities through both oral and written assignments and evaluations. The course is conducted solely in French.



## Advanced Placement French Language

**5170**

**1 Credit • Prerequisite: French IV**

This rigorous college-level course is designed for students who wish to further refine all communicative skills in preparation for the AP French language examination. Students will participate in activities that integrate several different skills enabling them to: understand French in various contexts; read and interpret literary texts; and express themselves in a more sophisticated spoken and written form. The course is conducted solely in French.

## German I

**5210**

**1 Credit**

This course enables the student to develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. Students will actively participate in contextualized activities to improve all four language domains: listening, speaking, reading and writing – focusing on the ability to communicate orally and in writing. Emphasis is placed on comparing and contrasting the culture of German-speaking peoples with American culture.

## German II

**5220**

**1 Credit • Prerequisite: German I**

Modern language students continue to develop proficiency in all four language skills: listening, speaking, reading, and writing. Students will actively participate in contextualized activities and use all three communicative modes (interpretive, interpersonal, and presentational) to increase their ability to communicate orally and in writing. Students learn to function in real-life situations using more complex sentences and language structures. Familiarity with the culture of German-speaking peoples is increased through comparisons and connections to American culture.

## German III

**5231**

**1 Credit • Prerequisite: German II**

This course focuses on the use of the language for active communication. Emphasis is placed on developing comprehension, refining writing skills, increasing speaking facility, and introducing more complex structures. At this level, modern language students comprehend the main ideas of the authentic materials that they read and hear and are able to identify significant details when the topics are familiar. Students will participate in contextualized activities that integrate all skills: listening, reading, writing and speaking – and use all three communicative modes (interpretive, interpersonal, and presentational) to increase their ability to communicate orally and in writing. Students will continue to explore German culture through the use of videos, authentic readings, and audio materials.

## German IV

**5241**

**1 Credit • Prerequisite: German III**

Students develop more advanced communication skills in all four areas: listening, speaking, reading, and writing – with emphasis on the ability to interact orally and in writing. Modern language students communicate using more complex language structures and express abstract ideas with reasonable fluency. Students are able to create and listen with understanding to reports and presentations as well as describe, summarize, and discuss selected upper-level themes and topics. Students gain greater insights into culture through authentic reading selections at this level and will continue to be exposed to authentic materials in order to develop higher-level thinking skills in the target language. The primary language spoken at this level is German.

## Advanced German Conversation and Composition

**5280**

**1 Credit • Prerequisite: German IV**

This course will give the advanced student the opportunity to practice and perfect their practical abilities to speak and write in German and will stress oral and written communication and proficiency. Students will acquire information from authentic sources in German and will be asked to function in many authentic speaking situations in the class. Students will continue to develop strong communicative ability in German in (Interpretive, Interpersonal and Presentational) modes and strive to produce German comprehensible to native speakers in a variety of settings, discourse, topics, and registers. Students will explore cultural perspectives of German-speaking peoples. This course is conducted solely in German.

## German Cinema

5285

**1 Credit • Prerequisite: German IV**

This course will provide students with the opportunity to study the history and development of Germanic culture through film. Through immersions in discussions and analyses of diverse literary and cultural themes, the student will gain a great in-depth knowledge of the language and culture of German-speaking peoples. An important component of this course is to integrate linguistic structures and vocabulary into the daily discussions and follow-up activities through both oral and written assignments and evaluations. The course will be conducted solely in German with special emphasis placed on attaining a high degree of fluency.

## Advanced Placement German Language

5270

**1 Credit • Prerequisite: German IV**

This rigorous college-level course is designed for students who wish to further refine all communicative skills in preparation for the AP German language examination. Students will participate in activities that integrate several different skills enabling them to: understand German in various contexts; read and interpret literary texts; and express themselves in a more sophisticated spoken and written form. The course is conducted solely in German.

## Latin I

5310SB

**1 Credit**

This course provides students the fundamental principles of the language as well as an understanding of the history, culture and mythology of the classical world. These provide the foundation and inspiration for many of the topics addressed in social studies and fine arts courses. Emphasis will be upon developing comprehension and critical thinking skills. Latin students can expect to see significant benefits in vocabulary growth, reading comprehension skills, and pattern recognition.

## Latin II

5320

**1 Credit • Prerequisite: Latin I**

Students continue to develop skills learned in Latin I. These skills provide the opportunity for students to engage with the cultural context of the Roman people and discuss issues raised by un-adapted historic texts. Many of the issues, such as violence as entertainment, social class divisions, and cultural assimilation, continue to challenge us today.

## Latin III

5331

**1 Credit • Prerequisite: Latin II**

Students will refine skills learned in Latin I & II. Students will be able to understand increasingly complex texts and will continue to discuss issues the Romans faced, many of which are still hotly debated today. In addition, students will explore Roman celebrations of major life events and make connections to modern customs.

## Latin IV

5341

**1 Credit • Prerequisite: Latin III**

Latin IV is an introduction to Latin Prose and Poetry. This rigorous course begins the Advanced Placement curriculum and provides a significant academic challenge to college-bound students. Students can expect to engage with meaningful and challenging literature from the peak of the Roman civilization. Assignments require in-depth analysis and application of literary works to contemporary life through discussion, writing, independent study, and group work.

## Advanced Placement Latin: Vergil

5370

**1 Credit • Prerequisites: Latin IV**

AP Latin concludes the study of the Latin curriculum. Students continue to focus their attention on the themes of literary genre and style, Roman values, war and empire, leadership, view of non-Romans, history and memory, and human beings and the gods. Throughout the exploration of these themes, students are expected to accurately translate authentic Roman poetry and prose and analyze literary texts in clear, coherent written English arguments supported by textual examples. Assignments require in-depth analysis and application of literary works to contemporary life through discussion, writing, independent study, and group work. After the AP exam, students will have the opportunity to complete a self-paced project focused on art and sculptures of the classical world.

## Spanish I

5510

1 Credit

This course enables a student to develop the ability to communicate about themselves and their immediate environment using simple sentences containing basic language structures. Students will actively participate in contextualized activities using all three communicative modes (interpretive, interpersonal, and presentational) across all four language domains: listening, speaking, reading, and writing – focusing on the ability to communicate orally and in writing. Emphasis is placed on comparing and contrasting the culture of Spanish-speaking peoples with American culture.

## Spanish II

5520

1 Credit • Prerequisite: Spanish I

Students continue to develop proficiency in all four language domains: listening, speaking, reading, and writing. Students will actively participate in contextualized activities and use all three communicative modes (interpretive, interpersonal, and presentational) to increase their ability to communicate orally and in writing. Students learn to function in real-life situations using more complex sentences and language structures. Familiarity with the culture of Spanish-speaking peoples is increased through comparisons and connections to American culture.

## Spanish III

5531

1 Credit • Prerequisite: Spanish II

This course focuses on the use of the language for active communication. Emphasis is placed on developing comprehension, refining writing skills, increasing speaking facility, and introducing more complex structures. At this level, students comprehend the main ideas of the authentic materials that they read and hear and are able to identify significant details when the topics are familiar. Students will participate in contextualized activities that integrate all skills: listening, reading, writing, and speaking – and use all three communicative modes (interpretive, interpersonal, and presentational) to increase their ability to communicate orally and in writing. Students continue to explore Hispanic culture through the use of videos, authentic readings, and audio materials. The primary language spoken at this level is Spanish.

## Spanish IV

5541

1 Credit • Prerequisite: Spanish III

Students develop more advanced communication skills in all four areas: listening, speaking, reading, and writing – with emphasis on the ability to interact orally and in writing. Students communicate using more complex language structures and express abstract ideas with reasonable fluency. Students are able to create and listen with understanding to reports and presentations as well as describe, summarize, and discuss selected upper-level themes and topics. Students gain greater insights into culture through authentic reading selections at this level and will continue to be exposed to authentic materials in order to develop higher-level thinking skills in Spanish. This course is conducted in Spanish.

## Advanced Spanish Conversation and Composition

5580

1 Credit • Prerequisite: Spanish IV

This course will give the advanced student the opportunity to practice and perfect their practical abilities to speak and write in Spanish and will stress oral and written communication and proficiency. Students will acquire information from authentic sources in Spanish and will be asked to function in many authentic speaking situations in the class. Students will continue to develop strong communicative ability in Spanish in all three communicative modes (interpretive, interpersonal, and presentational) and strive to produce Spanish comprehensible to native speakers in a variety of settings, discourse, topics, and registers. Students will explore cultural perspectives of Spanish-speaking peoples. This course is conducted solely in Spanish.

## Spanish Cinema

5586

1 Credit • Prerequisite: Spanish IV

This course is designed to immerse the student in real-life situations taken from the Spanish-speaking world. Self-expression is stimulated through discussions and analysis of diverse literary and cultural themes. The student will gain a greater in-depth knowledge of the language and culture of Spanish-speaking peoples. The movies chosen for this course are classics of Hispanic literature and culture and include mature themes. Special emphasis will be placed on attaining an ever greater fluency. This course is taught solely in Spanish.

## Advanced Placement Spanish Language

5570

**1 Credit • Prerequisite: Spanish IV**

This rigorous college-level course is designed for students who wish to further refine all communicative skills in preparation for the AP Spanish language examination. Students will participate in activities that integrate several different skills enabling them to: understand Spanish in various contexts; read and interpret literary texts; and express themselves in a more sophisticated spoken and written form. The course is conducted solely in Spanish.

## Advanced Placement Spanish Literature

5575

**1 Credit • Prerequisite: Advanced Placement Spanish Language**

This course will expose the students to representative works of Spanish literature as stipulated by the AP Spanish Literature Program of College Board. Students will read prose and verse and interpret, analyze, and critically discuss literary works from the Middle Ages through the 20th Century. Formulation and expression of critical opinions and judgments in correct oral and written Spanish are emphasized. Students will communicate effectively and with mastery in writing and speaking in preparation for the AP Spanish Literature examination. This course is conducted solely in Spanish.

# FINE ARTS

## Arts

### Art Foundations

9120

**1 Credit**

Art Foundations is an introductory course that serves as a prerequisite to all upper-level art courses at the high school. Students are introduced to the techniques and methods of creating and studying works of art. Fundamentals of pencil drawing and composition, color theory, and design in painting and printmaking are included. Ceramics, sculpture, crafts, art history, and career opportunities are explored. A sketchbook and notebook are required. [There is a fee associated with this course and fee waivers may apply. Visit wjccschools.org for more information.](http://www.wjccschools.org)

### Commonwealth Innovation (CI) - Art Foundations, Biology\*, and Computer Information Systems

986CI

**1 Credit Fine Arts (Art Foundations)**

**1 Credit Science (Biology)** \*Honors Biology extension available

**1 Credit CTE (Computer Information Systems)**

This interdisciplinary, team-taught course is designed to engage students using project-based learning. Students research and create group projects using interrelationships of the fine arts, science, technology, and entrepreneurship. Emphasis is on creative thinking, critical thinking, communication, and collaboration. Reflection, feedback, and revision are essential parts of this course. Students in this course will prepare to take the Biology SOL assessment at the end of the course. Students may also have an opportunity to pursue an Industry Credential by taking the Workplace Readiness Skills assessment at the conclusion of this course.

### Drawing

9130

**1 Credit • Prerequisite: Art Foundations**

A study of visual observation through drawing, stressing both technical skills and individual expression, is explored in graphite, charcoal, and Conté pencil. Mixed media and color drawings using ink washes, watercolor color pencils, oil pastels, and markers will also be included. Art history and criticism are integrated with appropriate units of study. Sketchbooks are required. A grade of "C" or higher in Art Foundations is recommended. [There is a fee associated with this course and fee waivers may apply. Visit wjccschools.org for more information.](http://www.wjccschools.org)

### Commonwealth Innovation (CI) - Biology II: Anatomy & Physiology and Drawing

988CI

**1 Credit Science (Biology II: Anatomy & Physiology)**

**1 Credit Fine Arts (Drawing)**

**Prerequisites: Biology and Art Foundations**

This course introduces students to the structures and functions of the human body through a study of visual observation, stressing

both technical skills and individual expression. The course focuses on each body system and the medical terminology associated with each system through the lens of a medical illustrator. These objectives will be met through extensive laboratory investigations, including dissection of a representative mammal. Students will use a variety of drawing medias (graphite, charcoal, pen and ink, watercolor washes, oil pastels) with a focus on understanding the human body and movement of the human form. These studies will provide an understanding of the interdependence of human body systems and provide a solid base for further studies and/or health care-related career choices. Art history and criticism are integrated with appropriate units of study. It is recommended that students interested in taking this course received a "C" or better in Art Foundations and in previous science courses.

### Painting and Printmaking

**9147**

**1 Credit • Prerequisite: Art Foundations**

Students will receive technical instruction in the use of acrylics, watercolors, and oil paints. A variety of printmaking techniques will also be explored. Color theory and composition are emphasized. Twentieth century painters and their influences on society will be discussed. Painting and Printmaking is specifically designed for improving drawing and design skills. A grade of "C" or higher in Art Foundations is recommended. [There is a fee associated with this course and fee waivers may apply. Visit wjccschools.org for more information.](#)

### Photography and Communication Design

**9193**

**1 Credit/Materials fee • Prerequisite: A grade of "C" or higher in Art Foundations.**

Students will receive instruction in digital and traditional 35mm photography. Adobe Photoshop applications, film development, and darkroom procedures will be taught. This course is specifically designed for improving visual skills. Students must have access to their own 35 mm or digital camera. [There is a fee associated with this course and fee waivers may apply. Visit wjccschools.org for more information.](#)

### Materials Studies

**9161**

**1 Credit • Prerequisite: Art Foundations**

Students will receive instruction in the technical skills of planning, designing, and creating original works of art in a wide variety of media such as fibers, ceramics, wood, metal, and glass. This course is specifically designed for improving design and technical skills. A grade of "C" or higher in Art Foundations is recommended. [There is a fee associated with this course and fee waivers may apply. Visit wjccschools.org for more information.](#)

### Ceramics

**9160**

**1 Credit • Prerequisite: Art Foundations**

Ceramics will be interspaced with pottery and sculpture to allow coverage of basic hand building, wheel throwing, and surface treatments. The techniques of additive, subtractive, and relief sculpture may be explored through a variety of materials. The history of ceramic development, as well as the study of modern sculpture, and the elements and principles of 3D design will be integrated with appropriate units of study. A grade of "C" or higher in Art Foundations is recommended. [There is a fee associated with this course and fee waivers may apply. Visit wjccschools.org for more information.](#)

### Portfolio Art I

**9137 Portfolio Art I/Drawing**

**9138 Portfolio Art I/2-D Design**

**9139 Portfolio Art I/3-D Design**

**1 Credit/\$35 Materials fee - fee waiver may apply**

**Prerequisites:**

**Portfolio Art I/Drawing: Art Foundations, Drawing, and one additional art elective**

**Portfolio Art I/2-D Design: Art Foundations, choice of Drawing, Painting and Printmaking, or Photography, and one art elective**

**Portfolio Art I/3-D Design: Art Foundations, Ceramics and Sculpture, and one additional art elective**

These courses are for students with well-developed art skills seriously interested in developing a portfolio suitable for college entrance. They require a high level of motivation, creativity, and independent thinking. The ability to observe, execute, and articulate a variety of visual problems is developed through studio work and critiques. Criteria set by The College Board will be followed. All portfolio options are equivalent. The course may be repeated for one additional credit with a different concentration.

## Portfolio Art II

9142 Portfolio Art II/Drawing

9143 Portfolio Art II/2-D Design

9144 Portfolio Art II/3-D Design

1 Credit/[\\$35 Materials fee - fee waiver may apply](#)

**Prerequisites or Corequisites:**

**Portfolio Art II/Drawing: Portfolio Art I with a concentration in Drawing**

**Portfolio Art II/2-D Design: Portfolio Art I with a concentration in 2-D Design**

**Portfolio Art II/3-D Design: Portfolio Art I with a concentration in 3-D Design**

These courses are a continuation of Portfolio Art I with the emphasis placed on expanding the quality of artwork, individual exploration, and developing a concentration in subject matter and media. Criteria set by The College Board will be followed. All portfolio options are equivalent. The course may be repeated for one additional credit with a different concentration. Note: Portfolio Art II is optional, but highly recommended for students to more fully develop their portfolios.

## Advanced Placement Studio Art

9148 AP Studio Art/Drawing

9149 AP Studio Art/2-D Design

9150 AP Studio Art/3-D Design

1 Credit/[\\$35 Materials fee - fee waiver may apply](#)

**Prerequisites or Corequisites:**

**AP Studio Art Drawing: Portfolio Art I with a concentration in Drawing**

**AP Studio Art/2-D Design: Portfolio Art I with a concentration in 2-D Design**

**AP Studio Art/3-D Design: Portfolio Art I with a concentration in 3-D Design**

These courses address a broad interpretation of drawing, 2-D design, or 3-D design issues. A variety of approaches to representations, abstraction, and expression may be part of the student's portfolio. Criteria set by the College Board will be followed. Original works, specific sets of slides, and written commentary will be sent to The College Board for adjudication in May. All portfolio options carry equal weight. The course may be repeated for one additional credit with a different concentration.

**The following course is an elective and does not satisfy the diploma requirement in the area of Fine Arts.**

## Advanced Placement Art History – Grades 11-12

9151

1 Credit

AP Art History is designed to prepare students for the AP Art History examination. The class begins in the ancient world and continues to contemporary day art works and movements. The first half of the course explores art from the Near East to the Early Renaissance. The second part explores art from the High Renaissance to modern day. The history of art is examined through themes, reading, art production, lecture, outline questions, flashcards, games, activities, videos and research. This course requires a high degree of commitment to academic work. Successful completion of Art Foundations recommended but not required.

## Music

### Music Appreciation

9234

1 Credit

Music Appreciation is a non-performing introductory music course with novice students wishing to earn a fine arts credit in music. The course is designed to provide the beginning music listener basic skills to evaluate and appreciate varied forms of music. The elements of music construction such as melody, harmony, and form will be discussed followed by a study of the evolution of music from classical music traditions to modern trends and styles. The majority of the class will involve listening to recordings and live performances to develop an appreciation for all forms of music.

### Advanced Placement Music Theory

9225

1 Credit

AP Music Theory is an advanced music course for those students wishing to prepare for the AP examination in music theory. The course will develop the student's ability to recognize, understand and describe the basic materials and processes that are heard or presented in a score. Student achievement of this goal will be through the development and integration of aural, sight-singing, written, compositional, and

analytical skills through listening, performance, written, creative, and analytical exercises.

### Intermediate Winds and Percussion

**9333**

**1 Credit • Prerequisite: Audition or consent of Instructor**

This non-performing class of mixed instruments emphasizes attainment of the necessary technical and musical skills to transfer to the Advanced Band. It also serves those students unable to attend the extra rehearsals and performances of the Advanced Band. Students who are currently in another band class and would like to learn a new instrument are also accepted with the consent of the director. [Students who use WJCC instruments are assessed a fee per semester. Fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### Advanced Band

**9334**

**1 Credit • Prerequisite: Audition or consent of the Director**

Consisting of woodwinds, brass, and percussion, this class emphasizes detailed work on band and ensemble literature as well as individual concentration on tone production, technique, musicianship, sight-reading, expanded repertoire, and listening skills. Students will be required to attend rehearsals and performances with the marching and concert bands outside of school hours. Students will have the opportunity to participate in sanctioned VBODA band activities (e.g. State Marching Band Assessment, All-District Band, District Concert Band Assessment, District Jazz Ensemble Assessment, Regional and State Auditions/Events). [Students who use WJCC instruments are assessed a fee per semester. Fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### Honors Band

**9344**

**1 Credit • Prerequisites: Audition or consent of the Director**

Honors Woodwind/Brass/Percussion is an advanced elective band class for experienced, dedicated and advanced students seeking a higher-level ensemble experience. In addition to participating in regularly scheduled band classes, additional individualized course work such as compositional projects and solo performances will provide students an opportunity to develop their musical skills beyond those attained during regular large ensemble classes. An individualized honors contract developed by the instructor and the student will set forth requirements for the course. Students will prepare solo and ensemble literature for recital, will audition for All-District events, and will complete theory and compositional assignments. Students will be required to attend rehearsals and performances with the marching and concert bands outside of school hours. Students will have the opportunity to participate in sanctioned VBODA band activities (e.g., State Marching Band Assessment, All-District Band, District Concert Band Assessment, District Jazz Ensemble Assessment, Regional and State Auditions/Events). [Students who use WJCC instruments are assessed a fee per semester. Fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### Jazz Ensemble

**9250**

**1 Credit • Prerequisite: Audition**

Instruction will emphasize the study of Jazz literature and improvisation. Participants must be enrolled in their regular band or string class in order to enroll. Students may not take Jazz Ensemble as a substitution for a regular band course. [Students who use WJCC instruments are assessed a fee per semester. Fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### Orchestra

**9338**

**1 Credit • Prerequisite: Audition or consent of the Director**

Consisting of violin, viola, cello, and bass, this string orchestra class will emphasize playing technique and hand position to develop a more professional and mature tone quality. Students will refine skills in using bow weight, speed, and placement to affect dynamic levels and tone. Instruction will include music aesthetics, theory, and history and will incorporate an interdisciplinary approach. Students are expected to attend additional rehearsals and performances outside of school hours. [Students who use WJCC instruments are assessed a fee per semester. Fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### Advanced Orchestra

**9339**

**1 Credit • Prerequisite: Audition or consent of the Director**

Consisting of violin, viola, cello, and bass, this class will emphasize detailed work on orchestral and ensemble literature as well as individual concentration on tone production, technique, musicianship, sight-reading, and expanded repertoire and listening skills. Students will be required to attend rehearsals and performances both during school hours and outside of school hours. Students will have the opportunity to participate in sanctioned VBODA orchestral activities (e.g., Senior Regional Orchestra, All-State Orchestra, and District

VIII Assessment Performance.) [Students who use WJCC instruments are assessed a fee per semester. Fee waivers may apply. Visit wjccschools.org for more information.](http://wjccschools.org)

### Honors Orchestra

**9342**

**1 Credit • Prerequisites: Audition or consent of the Director**

Honors Orchestra is an advanced elective orchestra class for experienced, dedicated, and advanced students seeking a higher-level ensemble experience. In addition to participating in regularly scheduled orchestra classes, additional individualized course work such as compositional projects and solo performances will provide students an opportunity to develop their musical skills beyond those attained during regular large ensemble classes. An individualized honors contract developed by the instructor and the student will set forth requirements for the course. Students will prepare solo and ensemble literature for recital, will audition for Regional events, and will complete theory and compositional assignments. Students will be required to attend rehearsals and performances with orchestra outside of school hours. Students will have the opportunity to participate in sanctioned VBODA orchestra activities (e.g., Regional Orchestra, District Concert Assessment, Regional and State Auditions/Events). [Students who use WJCC instruments are assessed a fee per semester. Fee waivers may apply. Visit wjccschools.org for more information.](http://wjccschools.org)

### Beginning/Intermediate Choir

**9385**

**1 Credit**

Students will develop choral skills through singing, in unison and harmony, with an emphasis on vocal production and techniques. Students will study sight-reading and theory, through a broad range of repertoire and styles. Attendance at all scheduled rehearsals and performances is required; stage presence and expected etiquette is an essential part of the performance. Students who demonstrate advanced skills will have the opportunity to participate in sanctioned VMEA and/or ACDA choir activities (e.g., District VIII Chorus, All-State Chorus, All-VA Honor Choir, District Assessment, and Festival). [There is a fee associated with this course and fee waivers may apply. Visit wjccschools.org for more information.](http://wjccschools.org)

### Advanced Choir

**9389**

**1 Credit • Prerequisite: Audition or consent of Director**

This class is for the experienced and performance-oriented musician. Techniques studied will be expanded upon to include more advanced vocal techniques, musicianship, sight-reading, and theory through a broad range of repertoire and styles. Students participate in performances throughout the year. Attendance at all scheduled rehearsals and performances outside of school hours is required. Students are highly encouraged to audition for extra-curricular ensembles. Students who demonstrate advanced skills will have the opportunity to participate in sanctioned VMEA and/or ACDA choir activities (e.g., District VIII Chorus, All-State Chorus, All-VA Honor Choir, District Assessment, and Festival). [There is a fee associated with this course and fee waivers may apply. Visit wjccschools.org for more information.](http://wjccschools.org)

### Honors Choir

**9390**

**1 Credit • Prerequisite: Audition or consent of the Director**

This class is for experienced, dedicated students seeking a higher-level performance ensemble experience. Individualized course work will provide students an opportunity to further develop their musical skills. The style of music and group composition will be at the teacher's discretion based on enrollment. Techniques studied in previous choir courses will be expanded including vocal techniques, tone production, musicianship, sight-reading, and expanded repertoire. An honors syllabus/contract will be developed by the instructor and the student to set individualized expectations for the course. Students are expected to attend additional rehearsals and performances outside of school hours as well as district choir auditions. Attendance at all scheduled rehearsals and performances outside of school hours is required. Students who demonstrate more advanced skills will have the opportunity to participate in sanctioned VMEA and/or ACDA choir activities (e.g., District VIII Chorus, All-State Chorus, All-VA Honor Choir, District Assessment and Festival). [There is a fee associated with this course and fee waivers may apply. Visit wjccschools.org for more information.](http://wjccschools.org)

## Theatre

### Theatre Foundations

**1414**

**1 Credit**

The purpose of this course is an overview of theatre as a form of art that involves participation as performers and audience members. Students will improve their communication skills, develop an appreciation for the actor's craft, and gain the understanding that theatre is a reflection of life. As a prerequisite for future courses, Theatre Foundations encompasses pantomimes, improvisations, scene development, monologues, critiques, play reviews, and short one-acts. Practical experience will be gained in theater as students



participate in the creative process through performance and production.

### Musical Theatre

**1415**

**1 Credit • Prerequisite: Theatre Foundations**

The Musical Theater program is designed to train actors in a wide range of skills, techniques, and experiences that provide a broad overview of the American musical theater performance, practice, history, and literature. A grade of "C" or higher in Theatre Foundations is recommended.

### Acting and Directing

**1416**

**1 Credit • Prerequisite: Theatre Foundations**

Course continues to build upon skills introduced in Theater Foundation, including developing concentration and focus, characterizations, physical agility, and creativity through the use of a wide range of acting techniques. Directing will provide students with basic directing techniques, explore composition, terminology, and ethics of good stage directing. Students will recognize different styles and their influences on directing choices. Students will direct fellow classmates in performances to gain practical experience. A grade of "C" or higher in Theatre Foundations is recommended.

### Stage Movement

**1417**

**1 Credit • Prerequisite: Theatre Foundations**

This course will allow students to exercise physical skills, coordination, and collaboration through the practice of dance methodologies. Students will explore the physical aspect of creating a role and preparing for a performance using physical and historical techniques. A grade of "C" or higher in Theatre Foundations is recommended.

### Technical Theatre

**1436**

**1 Credit • Prerequisite: Theatre Foundations**

Technical Theater focuses on the application of stage and performance principles and how they relate to the design, construction, and implementation of scenery, sound, lighting, make-up, costume, props, and stage management. These skills are influenced through reading and analyzing plays. This course also provides basic information and hands-on experience needed by technicians to function responsibly and efficiently as part of a theatrical team. A grade of "C" or higher in Theatre Foundations is recommended.

### Advanced Theatre Studio

**1418**

**1 Credit • Prerequisite: Theatre Foundation and two additional Theatre courses**

The major emphasis of this course is to provide for the continued growth and development of a student's acting and technical skills through the studying and production of public performances. This course allows students to work in all areas of theatre practicum through a guided production process. Advanced Theatre at this level places a greater emphasis on execution of skills, ensemble work, and collaboration with other student technicians. This course is expected to assimilate the acquired skills technical theatre, stage movements, musical theatre, and/or acting and directing. A grade of "C" or higher in Theatre Foundation and two intermediate theatre courses are required.

## HEALTH & PHYSICAL EDUCATION

***Health and physical education in the high school is designed to give students the opportunity to engage in individual activity that prepare them for a healthy lifestyle during high school and beyond. This includes knowledge of biomechanics, muscle fitness, and goal setting.***

***Adapted physical education will be provided to students with documented needs (i.e., IEP, Section 504 Plan, doctor's note).***

### Health and Physical Education I

**7300**

**1 Credit**

Health I topics include wellness and fitness, nutrition, infectious diseases, AIDS, STDs, and family life and sex education. Physical Education I focuses on lifetime activities including: disc games, biking, speedminton, orienteering, geocaching, rhythms and dance, and cooperative activities. Biomechanics is an important component of the program so students understand how the body moves when performing a skill. A major emphasis is placed on fitness activities including: yoga, Pilates, stability ball and strength training. \*Completion

of this course meets the "Training for Emergency First Aid, CPR & Use of an AED" graduation requirement beginning with the freshman class of 2017-2018 and beyond.

## Health and Physical Education II

**7400**

**1 Credit**

Health II topics include emotional health, non-infectious diseases, family life and sex education, fitness planning, and substance abuse prevention. Physical Education II focuses on individual activities including: tennis, golf, weight training, badminton, archery, and dance. Biomechanics is an important component of the program so students understand how the body moves when performing a skill. A major emphasis is placed on physical fitness including weight room activities and a performance portfolio.

**The following courses are electives and do not satisfy diploma requirements in the area of Health & Physical Education.**

## Advanced Physical Conditioning *\*Industry Credential may be available at participating schools*

**7655**

**1 Credit • Prerequisites: Teacher recommendation required**

This course offers students the opportunity to develop an optimal level of conditioning through a variety of advanced training techniques. Through the study of biomechanics, students will learn to identify correct technique in skill performance. Students interested in personal fitness training and sports medicine may benefit from this intensified study of personal conditioning.

## Lifetime Fitness and Conditioning *\*Industry Credential may be available at participating schools*

**7650**

**1 Credit • Prerequisites: Physical Education I and II and teacher recommendation**

This course will focus on the study of the science of anatomy, physiology, kinesiology and biomechanics and their relationship to the performance of the human body. There will be approximately 40% classroom time and 60% lab time. Laboratory activities will focus on total body conditioning.

## Driver Education – Grades 10-12

**7015**

**1 Credit • Prerequisite: Must possess a valid Virginia Instruction Permit to begin Behind the Wheel**

Classroom: Course emphasizes traffic knowledge, Virginia law, and a proper attitude toward the use of motor vehicles. Students will also learn basic automobile maintenance.

Behind the Wheel: Course emphasizes driving skills such as road experience, ABS braking, serpentine skills, and off-road recovery. Behind the wheel driving is offered before school, after school and Saturdays. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

# CAREER & TECHNICAL EDUCATION (CTE)

## Agricultural Education

### Veterinary Science I – Grades 11-12 *\*Industry Credential Available*

**8088**

**1 Credit**

Veterinary Science I prepares students for postsecondary education and/or careers in veterinary medicine or related fields. Students will develop their skills in anatomy, nutrition, medical terminology, sanitation, clinical exams, and handling animals. Live animal handling may occur. Course content also includes facility maintenance, and office functions, as well as safety practices. There is a fee associated with this course and fee waivers may apply. Visit [wjccschools.org](http://wjccschools.org) for more information.

## Business & Information Technology

### Principles of Business and Marketing – Grades 9-10 *\*Industry Credential Available*

**6116**

**1 Credit**

Students discover the roles of business and marketing in the free enterprise system and the global economy. Basic financial concepts

of banking, insurance, credit, inheritance, taxation, and investments are investigated to provide a strong background as students prepare to make sound decisions as consumers, wage earners, and citizens. The real-world impact of technology, effective communication, and interpersonal skills is evident throughout the course. This course also supports career development skills and explores career options. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

#### **Business Law – Grades 11-12 \*Industry Credential Available**

**6132**

**1 Credit**

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

Students examine the foundations of the American legal system and learn the rights and responsibilities of citizens. Students gain practical knowledge and life skills by exploring economic and social concepts related to laws governing business and individuals. Focus areas include contracts, consumer protection, criminal law, tort law, international law, family/domestic law, employment law, cyber law, and careers in the legal profession. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

#### **Business Management – Grades 11-12 \*Industry Credential Available**

**6135**

**1 Credit**

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

Students study basic management concepts and leadership styles as they explore business ownership, planning, operations, marketing, finance, economics, communications, the global marketplace, and human relations. Quality concepts, project management, problem solving, and ethical decision-making are an integral part of the course. Student leadership skills may be enhanced by participation in school-based or virtual enterprises, job shadowing, internships, cooperative education, and/or the Future Business Leaders of America (FBLA). [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

#### **Information Technology (IT) Fundamentals – Grades 9-10 \*Industry Credential Available**

**6670**

**1 Credit**

Students investigate career opportunities and technologies in four major IT areas: Information Services and Support, Network Systems, Programming and Software Development, and Interactive Media. Students will evaluate the impact of IT on other career clusters. The focus of the IT Fundamentals course is the introduction of skills related to information technology basics, Internet fundamentals, network systems, computer maintenance/upgrading/troubleshooting, computer applications, programming, graphics, Web page design, and interactive media. Students explore ethical issues related to computers and Internet technology and develop teamwork and communication skills that will enhance their employability. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

#### **Computer Information Systems (CIS) – Grades 10-12 \*Industry Credential Available**

**6614**

**1 Credit**

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

**Prerequisite: Keyboarding skills**

Students apply problem-solving skills to real-life situations through word processing, spreadsheets, databases, multimedia presentations, and integrated software activities. Students work individually and in groups to explore computer concepts, operating systems, networks, telecommunications, and emerging technologies. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

#### **Advanced Computer Information Systems – Grades 11-12 \*Industry Credential Available**

**6615SB**

**1 Credit**

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

**Prerequisite: Computer Information Systems (CIS) or Information Technology (IT) Fundamentals**

Students apply problem-solving skills to real-life situations through advanced integrated software applications, including printed, electronic, and web publications. Students work individually and in groups to explore advanced computer maintenance activities, website development, programming, networking, emerging technology, and employability skills. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

## Commonwealth Innovation (CI) - Art Foundations, Biology\*, and Computer Information Systems (CIS)

986CI

**1 Credit Fine Arts (Art Foundations)**

**1 Credit Science (Biology)** \*Honors Biology extension available

**1 Credit CTE (Computer Information Systems)**

This yearlong, interdisciplinary, team-taught course is designed to engage students using project-based learning. Students research and create group projects using interrelationships of the fine arts, science, technology, and entrepreneurship. Emphasis is on creative thinking, critical thinking, communication, and collaboration. Reflection, feedback, and revision are essential parts of this course. Students in this course will prepare to take the Biology SOL assessment at the end of the course. Students may also have an opportunity to pursue an Industry Credential by taking the Workplace Readiness Skills assessment at the conclusion of this course.

## Design, Multimedia, and Web Technologies – Grades 10-12 \*Industry Credential Available

6632

**1 Credit**

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

**Prerequisite: Information Technology (IT) Fundamentals, Keyboarding skills.**

Students develop proficiency in designing and creating desktop-published projects, multimedia presentations/projects, and websites, using industry-standard application software. Students apply principles of layout and design in completing projects. Students create portfolios that include a résumé and a variety of desktop-published, multimedia, and website projects produced in the course. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

## Advanced Design, Multimedia, and Web Technologies – Grades 11-12 \*Industry Credential Available

6633

**1 Credit**

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

**Prerequisite: Design, Multimedia, and Web Technologies**

Students develop advanced skills for creating desktop-published, interactive multimedia, and website projects. Students work with sophisticated hardware and software, applying skills to real-world projects. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

## Economics and Personal Finance – Grades 11-12 \*Industry Credential Available

6120-3

**1 Credit**

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

**\*This course *does* satisfy the diploma requirement for successful completion of a Virtual Course**

**\*This course *does not* satisfy the diploma requirement for a Career and Technical Education Course**

Students learn how to navigate the financial decisions they must face and how to make informed decisions related to career exploration, budgeting, banking, credit, insurance, spending, taxes, saving, investing, buying/leasing a vehicle, living independently, and inheritance. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship and career success. In addition to developing personal finance skills, students in this course will also study basic occupational skills and concepts in preparation for entry-level employment in the field of finance.

*All WJCC students will take this course online through our eLearning portal to meet VDOE graduation requirements. The online blended learning course option is offered either during the school day directed either by a teacher or asynchronously. Students will be given deadlines to turn in submitted assignments during the semester according to a pacing guide set by the instructor and will be required to take the WISE Financial Literacy Test or the Workplace Readiness Skills for the Commonwealth Examination.*

## Career Connections

### Introduction to Virginia Teachers for Tomorrow – Grades 9-10 \*Industry Credential Available

9060

**1 Credit**

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

This exploratory course fosters student interest, understanding, and appreciation of the teaching profession and allows students an introduction to careers in education. Students are taught to develop self-awareness, collaborate and communicate with peers, build positive learning environments, and discover learning differences of others. The curriculum is designed to help students set attainable goals in the Education and Training Career Cluster. This course introduces students to the high school Virginia Teachers for Tomorrow (VTfT) program.

### Virginia Teachers for Tomorrow I – Grades 10-12 *\*Industry Credential Available*

9062

1 Credit

This course fosters student interest, understanding, and appreciation of the teaching profession and allows secondary students to explore careers in education. Students build a foundation for teaching; learn the history, structure and governance of teaching; apply professional teaching techniques in the VTFT classroom and field experience; and reflect on their teaching experiences.

### Virginia Teachers for Tomorrow II – Grades 11-12 *\*Industry Credential Available*

9072

1 Credit • Prerequisite: Virginia Teachers for Tomorrow I

Students continue to explore careers in the Education and Training Career Cluster and pathways. This course provides the opportunity for students to prepare for careers in education as they research postsecondary options, learn about the process of teacher certification in Virginia, and participate in a practicum experience.

## Family & Consumer Sciences

### Nutrition and Wellness – Grades 10-12 *\*Industry Credential Available*

8228

1 Credit

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

Students enrolled in Nutrition and Wellness focus on understanding wellness, investigating principles of nutrition, using science and technology in food management, ensuring food safety, planning menus and preparing food, and exploring careers in the field of nutrition and wellness. Critical thinking and practical problem solving are emphasized. [There is a fee associated with this course and fee waivers may apply. Visit wjccschools.org for more information.](#)

### Child Development and Parenting – Grades 10-12 *\*Industry Credential Available*

8231

1 Credit

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

Students enrolled in Child Development and Parenting focus on balancing work and family; analyzing parenting roles and responsibilities; ensuring a healthy start for mother and child; evaluating support systems that provide services for parents; and evaluating parenting practices that maximize human growth and development. [There is a fee associated with this course and fee waivers may apply. Visit wjccschools.org for more information.](#)

### Independent Living – Grades 9-12 *\*Industry Credential Available*

8214

1 Credit

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

Students in Independent Living build life skills focusing on establishing positive relationships, balancing work and family life, investigating careers, making responsible consumer choices, applying nutrition and wellness knowledge, and studying child development and parenting. [There is a fee associated with this course and fee waivers may apply. Visit wjccschools.org for more information.](#)

## Health & Medical Science

### Emergency Medical Technician (EMT) I – Grade 12

8333TN

1 Credit (CTE)

4 College Credits from TNCC

**This course is Dually Enrolled with Thomas Nelson Community College (TNCC) and will take place at the TNCC Historic Triangle campus.**

This course is the first in a sequence of courses that prepares students as first responders to accidents and medical emergencies. In this course, students explore and apply the fundamentals of emergency medical services, anatomy, physiology, and medical terminology while demonstrating skills in assessing and managing patient care, including assessing the scene and understanding shock, resuscitation, and trauma. Students will also learn body substance isolation techniques, establishing and maintaining an airway, bandaging wounds, use of automated external defibrillators, and much more. Upon successful completion of this course and EMT II, students will have earned CPR certification and will have the opportunity to take the certification exam for becoming an Emergency Medicine Technician- Basic.

## Emergency Medical Technician (EMT) II - Grade 12 \*Industry Credential Available

8334TN

1 Credit (CTE)

4 College Credits from TNCC

**Prerequisite:** Emergency Medical Technician (EMT) I

**This course is Dually Enrolled with Thomas Nelson Community College (TNCC) and will take place at the TNCC Historic Triangle campus.**

This course is the second in a sequence of courses that prepares students as first responders to accidents and medical emergencies. Students will build on their knowledge and skills for providing basic life support, learned in EMT I, by focusing on the areas of emergency medical service operations, medical emergencies, and management of special patient populations. This course provides on-the-job instruction and supervised direct patient contact, introducing the student to the assessment and emergency care of sick and injured patients. Upon successful completion of EMT I and EMT II, students will have earned CPR certification and will have the opportunity to take the certification exam for becoming an Emergency Medical Technician-Basic.

## Medical Assistant I - Grade 12

8345TN

1 Credit (CTE)

6 College Credits from TNCC

**This course is Dually Enrolled with Thomas Nelson Community College (TNCC) and will take place at the TNCC Historic Triangle campus.**

This course is the first in a sequence of courses that prepares students to support the work of physicians and other health professionals as a Medical Assistant. Students will learn to assist healthcare providers with patient examinations, basic emergency care, and simple laboratory tests. Additionally, the course covers basic anatomy and physiology, medical ethics, medical mathematics, and legal responsibilities. Upon successful completion of this course and Medical Assistant II, students will have earned CPR certification and will have the opportunity to take the certification exam for becoming a Certified Clinical Medical Assistant (CCMA) in Virginia.

## Medical Assistant II - Grade 12 \*Industry Credential Available

8346TN

1 Credit (CTE)

6 College Credits from TNCC

**Prerequisite:** Medical Assistant I

**This course is Dually Enrolled with Thomas Nelson Community College (TNCC) and will take place at the TNCC Historic Triangle campus.**

This course is the second in a sequence of courses that prepares students to support the work of physicians and other health professionals as a Medical Assistant. In this course, students apply and implement medical-assisting skills and techniques learned in Medical Assistant I. Students will also learn management of health records, collection and analysis of laboratory specimens, special diagnostic testing related to basic diseases and disorders, and care and use of equipment. Off-site, on-the-job clinical experience in a healthcare facility is part of this course. Upon successful completion of Medical Assistant I and Medical Assistant II, students will have earned CPR certification and will have the opportunity to take the certification exam for becoming a Certified Clinical Medical Assistant (CCMA) in Virginia.

## Nurse Aide I - Grade 12

8360TN

1 Credit (CTE)

3 College Credits from TNCC

**This course is Dually Enrolled with Thomas Nelson Community College (TNCC) and will take place at the TNCC Historic Triangle campus.**

This course is the first in a sequence of courses that prepares students to render direct patient care as entry-level Nurse Aides in a variety of health service facilities. Students will learn basic care skills with emphasis on physical, social, and emotional needs of patients. This course covers procedures, communications, and interpersonal relation; observations, charting and reporting, care planning, safety, and infectious control; anatomy and physiology; nutrition and patient feedings; and ethics, death and dying. Upon successful completion of this course and Nurse Aide II, students will have earned CPR certification and will have the opportunity to take the certification exam for becoming a Certified Nurse Aide (CNA) in Virginia.

### **Nurse Aide II - Grade 12 \*Industry Credential Available**

**8361TN**

**1 Credit (CTE)**

**5 College Credits from TNCC**

**Prerequisite: Nurse Aide I**

**This course is Dually Enrolled with Thomas Nelson Community College (TNCC) and will take place at the TNCC Historic Triangle campus.**

This course is the second in a sequence of courses that prepares students to render direct patient care as entry-level Nurse Aides in a variety of health service facilities. Students will apply and implement skills learned in Nurse Aide I, as well as continue to learn additional skills including clinical care of the acute medical-surgical patient, the chronically ill, and the elderly; and therapeutic communication techniques to include addressing anger, assertiveness, and managing conflict. Off-site, on-the-job clinical instruction in a licensed healthcare facility is part of the course. Upon successful completion of Nurse Aide I and Nurse Aide II, students will have earned CPR certification and will have the opportunity to take the certification exam for becoming a Certified Nurse Aide (CNA) in Virginia.

### **Principles of Biomedical Science (PLTW) – Grades 9-10 \*Industry Credential Available**

**8379**

**1 Credit**

In this specialized course for PLTW, students are taught concepts of forensic inquiry; DNA and inheritance; function of human body systems, and exploring the body through diseases such as those leading to diabetes, heart disease, sickle cell, and infectious diseases. Students also explore medical interventions, postmortem examination, bioprocessing, bioinformatics, and concepts of microbiology and genetic engineering. [There is a fee associated with this course and fee waivers may apply. Visit wjccschools.org for more information.](http://www.wjccschools.org)

### **Human Body Systems (PLTW) – Grades 10-12 \*Industry Credential Available**

**8380**

**1 Credit • Prerequisite: Principles of Biomedical Science (PLTW)**

In this specialized course for PLTW, students explore the human body systems of communication, power, and movement. To do this, students are taught the body's components, tissues, molecules and cells, as well as concepts of homeostasis and body system defenses. [There is a fee associated with this course and fee waivers may apply. Visit wjccschools.org for more information.](http://www.wjccschools.org)

## **Marketing Education**

### **Principles of Business and Marketing – Grades 9-12 \*Industry Credential Available**

**6116**

**1 Credit**

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

Students discover the roles of business and marketing in the free enterprise system and the global economy. Basic financial concepts of banking, insurance, credit, inheritance, taxation, and investments are investigated to provide a strong background as students prepare to make sound decisions as consumers, wage earners, and citizens. The real-world impact of technology, effective communication, and interpersonal skills is evident throughout the course. This course also supports career development skills and explores career options. [There is a fee associated with this course and fee waivers may apply. Visit wjccschools.org for more information.](http://www.wjccschools.org)

### **Commonwealth Innovation (CI) – English 10\* and Principles of Business & Marketing**

**985CI**

**1 Credit English (English 10) \*Honors English 10 extension available**

**1 Credit CTE (Principles of Business & Marketing)**

**Prerequisite: English 9**

The real-world impact of technology, effective communication, and interpersonal skills is evident throughout this course. There is a sustained emphasis on reading comprehension by comparing fiction and nonfiction texts and students will analyze the cultural and social functions and universal themes of fictional texts from different cultures. Students will discover the roles of business and marketing in the free enterprise system and the global economy. Students will use multimodal tools to create presentations both independently and in small groups, and will continue to build research skills presenting information gathered from diverse sources, identifying misconceptions and possible bias while crediting MLA or APA style. Students in this course will prepare to take the Writing SOL assessment at the end of the course. Students may also earn an Industry Credential at the conclusion of this course by taking the Workplace Readiness Skills assessment.

## Marketing – Grades 9-12 \*Industry Credential Available

8120

1 Credit

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

Students examine activities in marketing and business important for success in marketing employment and postsecondary education. Students will learn how products are developed, branded, and sold to businesses and consumers. Students will analyze industry trends and gain hands-on experience in the marketing of goods, services, and ideas. Topics will include professionalism in the workplace, product planning and positioning, promotion, pricing, selling, economic issues, and the impact of technology on the marketplace. Computer/technology applications and DECA activities enhance the course. DECA, the co-curricular student organization, offers opportunities in leadership, community, and competitive events. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

## Marketing Management – Grade 11-12 \*Industry Credential Available

8130S

1 Credit

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

**Prerequisite: Marketing**

Students build on knowledge gained in a prior Marketing course. Students participate in supervisory and management activities focusing on the marketing mix, purchasing, financing, human resources, global marketing, pricing, and emerging technologies. Students will prepare for advancement in marketing careers and postsecondary education. Computer/technology applications and DECA activities enhance the course. DECA, the co-curricular student organization, offers opportunities in leadership, community, and competitive events. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

## Fashion Marketing – Grades 10-12 \*Industry Credential Available

8140

1 Credit

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

In this specialized course, students gain basic knowledge of the apparel and accessories industry and skills necessary for successful employment in apparel businesses. Students develop general marketing skills necessary for successful employment in fashion marketing, general marketing skills applicable to the apparel and accessories industry, and specialized skills unique to fashion marketing. Personal selling, sales promotion, purchasing, physical distribution, market planning, and product/service technology as well as academic skills (mathematics, science, English, and history/social science) related to the content are part of this course. Computer/technology applications supporting this course are studied. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

## Advanced Fashion Marketing – Grades 11-12 \*Industry Credential Available

8145

1 Credit

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

**Prerequisite: Fashion Marketing**

Students with an interest in apparel and accessories marketing gain in-depth knowledge of the apparel and accessories industry and skills utilized in various apparel businesses. They develop advanced skills unique to fashion marketing and advanced general marketing skills applied to the apparel and accessories industry. Professional selling, sales promotion, buying, merchandising, marketing research, economics, hiring and retaining employees, product/service technology, and supervision as well as academic skills (mathematics, science, English, and history/social science) related to the content are part of this course. Computer/technology applications supporting this course are studied. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

## Travel and Tourism Marketing – Grades 10-12 \*Industry Credential Available

8139

1 Credit

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

This course examines the components of the hospitality and tourism industry, including attractions, lodging, transportation, and food and beverage. Other topics include the history, political, social, and cultural impacts hospitality and tourism have had on local, state, and global environments. Students will develop competencies in the areas of communication, customer service, marketing, industry technology, economics, and management functions, and will be provided with opportunities for hands-on, real-world applications. Applying academic skills from other disciplines (e.g., mathematics, science, English, history/social science) is also a part of this course. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)



### **Sports and Entertainment Marketing – Grades 10-12 \*Industry Credential Available**

**8175**

**1 Credit**

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

This course helps students develop a thorough understanding of fundamental marketing concepts and theories as they relate to the sports and entertainment industries. Students will investigate the components of customer service skills, branding, product development, pricing and distribution strategies, business structures, sales processes, social media, sponsorships and endorsements, as well as promotion plans needed for sports and entertainment events. The course also supports career development skills and explores career options. Academic skills (mathematics, science, English, and history/social science) related to the content are a part of this course. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### **Sports and Entertainment Management – Grades 11-12 \*Industry Credential Available**

**8177**

**1 Credit**

**Optional: 1 Credit for completing Cooperative Education work-based learning method of instruction (when available)**

**Prerequisite: Sports and Entertainment Marketing**

Students will build on prior knowledge of sports, entertainment, and recreation marketing. This course focuses on the principles of management and planning supported by research, financial, economic, ethical, and legal concepts. Students will be able to plan and execute an event, establish a sports, entertainment, or recreation marketing product/business, and develop a career plan. Academic skills (mathematics, science, English, and history/social science) related to the content are a part of this course. Computer/technology applications supporting the course are studied. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

## **Technology Education**

### **Advanced Drawing and Design – Grades 9-12 \*Industry Credential Available**

**8438**

**1 Credit**

This course offers experience in 2D and 3D modeling techniques used in careers such as engineering, architecture, interior designing, graphic arts, and game design. AutoCAD professional software is used to enhance the curriculum and develop skills in computer-aided design systems. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### **Architectural Drawing/Design – Grades 10-12 \*Industry Credential Available**

**8437**

**1 Credit**

This course is for students that may be interested in becoming an architect, interior designer or general contractor. Students learn how to use designing tools such as T-squares, REVIT software, design structures, and models. Careers that support architecture are explored such as carpentry, electrical, and plumbing. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### **Engineering Studies – Grades 11-12 \*Industry Credential Available**

**8491**

**1 Credit**

To learn the applications and design process of engineering, students form engineering teams and select a group design problem. Each team uses communications, graphics, mathematics, and community resources to solve problems. Each team learns appropriate information in order to complete a project. Projects may be models, systems, or products that creatively solve an engineering problem. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### **Digital Visualization – Grades 9-12 \*Industry Credential Available**

**8459**

**1 Credit**

Digital Visualization provides experiences related to computer animation by using graphics and design concepts. Students solve problems involving 3D object manipulation, storyboarding, texturing/mapping, lighting concepts, and environmental geometry. Students create a variety of animations that reflect real-world applications and are introduced to interactive and 3D animation software. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### **Graphic Communications Systems – Grades 10-12 \*Industry Credential Available**

**8494**

**1 Credit**

Graphic Communications Systems provide experiences in the fields of imaging technology, graphic productions, mixed media, technical design, and various modes of communicating information through the use of visual data. Students develop critical-thinking and problem-solving skills using the universal systems model. Students also learn about the impact of communication on society and potential career fields relating to communications. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### **Geospatial Technology I – Grades 10-12 \*Industry Credential Available**

**8424**

**1 Credit**

Geospatial Technology I provides experiences in the study and use of geographic information systems (GIS), global positioning systems (GPS), remote sensing (RS), and mobile technologies. Students will use various tools, processes, and techniques to create, store, access, manipulate, and revise data to solve human challenges. Students will interface to network-based data management systems and employ real-world spatial analysis models and guidelines for integrating, interpreting, analyzing, and synthesizing data, with a focus on both the implications and the limitations of such technologies. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### **Introduction to Engineering Design (PLTW) – Grades 9-10 \*Industry Credential Available**

**8439**

**1 Credit • Prerequisite: Currently enrolled in Algebra I Sequence II or Algebra I**

Introduction to Engineering Design teaches problem-solving skills using a design development process. Models of product solutions are created, analyzed, and communicated using solid modeling computer design computer software. The program also emphasizes team development and team problem solving. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### **Principles of Engineering (PLTW) – Grades 10-11 \*Industry Credential Available**

**8441**

**1 Credit • Prerequisite: Introduction to Engineering Design**

Principles of Engineering introduces the career field in terms of the kinds of problems it solves. Students are presented with problems in design of products. They learn modeling, testing and evaluation, and presentation skills. Topics include engineering systems, thermodynamics, fluid systems, electrical systems, and control systems. In statics and material strength, they learn about forces, static equilibrium, vectors, moments, and reaction forces. Statistical process control and non-destructive and destructive testing are employed. It is strongly recommended that students shall have successfully completed Algebra I prior to enrollment. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### **Computer Integrated Manufacturing (PLTW) – Grades 10-12 \*Industry Credential Available**

**8442**

**1 Credit • Prerequisite: Introduction to Engineering Design**

The objective of the Computer Integrated Manufacturing course is to expose students to the fundamentals of computerized manufacturing technology. The course is built around several key concepts:

- Computer modeling – Utilize 3D solid modeling software package (Inventor) with mass property analysis
- CNC equipment – understanding the machine tools and its operating and programming aspects
- CAM software – converting computer-generated geometry into a program to drive CNC machine tools
- Robotics – using a robot for materials handling and assembly operations
- Flexible manufacturing systems – students working in teams to design manufacturing work cells and tabletop factory simulations.

[There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### **Digital Electronics (PLTW) – Grades 10-12 \*Industry Credential Available**

**8440**

**1 Credit • Prerequisite: Algebra I and Introduction to Engineering Design**

Students use computer simulations to learn about the logic of electronics as they design, test, and actually construct circuits and devices. They apply control system programming and explore sequential logic and digital circuitry fundamentals. Topics in computer circuitry are also presented. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

## Engineering Design and Development (PLTW) – Grade 11-12 *\*Industry Credential Available*

8443

**1 Credit • Prerequisite: Algebra II and Introduction to Engineering Design**

Students work in teams to research, design, and construct a solution to an open-ended engineering problem. Students apply principles developed in the four preceding courses. They must present progress reports, submit a final written report, and defend their solutions to a panel of outside reviewers at the end of the school year. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

## Computer & Information Science

### Computer Science Essentials (PLTW) *\*Industry Credential Available*

8472

**1 Credit**

Students will use visual, block-based programming and seamlessly transition to text-based programming with language such as Python® to create apps and develop websites, and learn how to make computers work together to put their design into practice. Students will apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them. This course helps students create a strong foundation to advance to Computer Science Principles and Computer Science A. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### Computer Science Principles (PLTW) *\*Industry Credential Available*

8473

**1 Credit**

Using Python® as a primary tool and incorporating multiple platforms and languages for computation, this course will develop computational thinking, generate excitement about career paths that utilize computing, and introduce professional tools that foster creativity and collaboration. Students will continue developing programming expertise and explore the workings of the Internet. Projects and problems include app development, visualization of data, cybersecurity, and simulation. This course aligns to AP Computer Science Principles curriculum framework standards and the AP Computer Science Principles exam. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

### Advanced Placement Computer Science A (PLTW) *\*Industry Credential Available*

8474

**1 Credit • Prerequisite: Computer Science Principles (PLTW)**

Students will further develop computational-thinking skills through the medium of Android™ App development for mobile platforms. The course utilizes industry-standard tools such as Android Studio, Java™ programming language, XML, and device emulators. Students collaborate to create original solutions to problems of their own choosing by designing and implementing user interfaces and web-based databases. [There is a fee associated with this course and fee waivers may apply. Visit \[wjccschools.org\]\(http://wjccschools.org\) for more information.](#)

## NEW HORIZON'S CAREER & TECHNICAL EDUCATION CENTER (CTEC)

***Once a student has been admitted to the Career & Technical Education Center, he/she will work with his/her school counselor to review course descriptions for the upcoming academic year and make appropriate course selections.***

Courses at the New Horizons Regional Education Center qualify students for post-secondary education and/or skilled employment after graduation. The courses are open to all rising eleventh and twelfth graders. Students attend a half-day (two blocks) at their home high school and a half-day (two blocks) at New Horizons, either at the Woodside Lane campus in Newport News or the Butler Farm campus in Hampton, getting hands-on experience in the career cluster of their choice.

Most courses carry three credits per year for each of the one or two years of study. Transportation will be provided and participating students must be full-time Jamestown, Lafayette, or Warhill High School students who are eligible to participate in activities, athletics, or clubs.

Note: All course offerings listed on the following page are contingent upon the necessary number of students enrolling in them and approval of the 2020-2021 budget. If a class does not attain minimum requirements then it may be cancelled. As such, students are strongly encouraged to choose more than one course when completing an enrollment application. Dual enrollment credits are contingent upon employment of a qualified instructor and students pass the TNCC college placement test. Selected students may be invited to return for a second year program. A very limited number of positions are available.

**Admission Procedures:** To submit your application for CTEC by the current deadline or to find out more information about CTEC, visit your school counselor or go online to [www.nhrec.org](http://www.nhrec.org)

# NEW HORIZON'S GOVERNORS SCHOOL FOR SCIENCE AND TECHNOLOGY

**Once a rising eleventh grade student has been admitted to the Governor's School for Science and Technology, he/she will work with his/her school counselor to review course descriptions for the upcoming academic year and make appropriate course selections.**

The Governor's School is a two-year, half-day program, for eleventh and twelfth graders. Students will select one of the following three strands as the focus for their Governor's School experience: Engineering, Biological Sciences, or Computational Sciences & Engineering. Each strand provides a unique emphasis on both the science subject matter and associated career fields and each course offered has been specifically structured to incorporate best practices for gifted students. In total, students will spend approximately three hours at the Governor's School, taking three courses each year, during the two-year program.

Note: All strands encompass a math course during both the junior and senior year and placement in the appropriate math course will be determined upon admission at the end of tenth grade. In addition, each strand will foster research through a Research Methods and Ethics course the junior year and an Honors Research and Mentorship placement the senior year.

**Potential Course Offerings** – Full course descriptions are available at <https://nhrec.org/gsst/>:

- Advanced Chemical Analysis
- Advanced Biological Analysis
- Calculus-based Engineering Physics I & II: Mechanics to Electromagnetism
- Calculus-based Engineering Physics III and IV: Modern Physics and Applied Physics: Engineering Design Principles
- Computational Physics
- Engineering Design Innovation & Entrepreneurship
- College Modern Pre-Calculus
- College Calculus
- Statistical Research Methods
- Multivariable Calculus/Linear Algebra
- Differential Equations & Math Methods in Physics
- Research Methodology & Ethics
- Environmental Science: Research Applications/Mentorship

## Admissions Procedures

Admission to the program is highly competitive. For specific admission and application information, please see your school counselor or visit <https://nhrec.org/gsst/admissions/how-to-apply/>

## Pre-Admission Series:

Students can apply to the New Horizon's Governor's School for Science and Technology Pre-Admissions Series (PAS) program in their eighth- or ninth-grade year by completing an application that can be found here: <https://nhrec.org/gsst/admissions/pre-admissions/>. Test scores, as well as teacher recommendations and course grades will be used to determine which students will be invited to participate in the Governor's School PAS offered in ninth and tenth grade. Identified students will take prerequisite courses offered in their high schools and will participate in a variety of specific activities offered at the school that will acquaint them with the Governor's School. If students and their parents decide that the Governor's School is a good match for their interests, they can submit a formal online application to the Governor's School in their 10th grade year. Please note that acceptance into the PAS does not guarantee acceptance into the Governor's School

## New Horizons Career and Technical Education Program of Studies SY 2021-2022

Career Clusters	Courses	Campus	AM/PM Session	College Credits	Industry Credential(s)	Course Numbers
<b>Transportation, Distribution, &amp; Logistics</b>						
(1 yr program) (2nd yr optional)	Auto Body Technology I, II Auto Body Technology III	Butler Farm	Both		ASE/Entry-Level	8676/8677 8678
(2 yr program)	Automotive Technology I, II	Butler Farm	Both	17 TNCC	ASE Entry-Level	8506/8507
<b>Architecture &amp; Construction</b>						
(1 yr program) (2nd yr optional)	Building Construction I, II Building Construction III	Woodside Lane	Both		NOCTI	8601/8602 8603
(1 yr program)	Electricity and Renewable Energy	Woodside Lane	Both		NCCER	8533/8534
(1 yr program)	HVAC I, II	Woodside Lane	Both		EPA/NCCER	8503/8504
(1 yr program)	Plumbing and Pipefitting	Woodside Lane	Both		NCCER	8551/8552

Continue on next page ►

Career Clusters	Courses	Campus	AM/PM Session	College Credits	Industry Credential(s)	Course Numbers
<b>Manufacturing Technology</b>						
(1 yr program)	Precision Machining	Butler Farm	AM	20 TNCC	NIMS	8539/8540
(1 yr program)	Mechatronics	Butler Farm	Both	20 TNCC	Siemens Mechatronics Systems Exam/NOCTI	8554/8555/8556
(2 yr program)	Welding I, II	Both	Both		AWS SENSE/NOCTI	8672/8673
<b>Health Sciences</b>						
(2 yr program)	Dental Careers I, II	Butler Farm	I - AM; I & II - PM		X-Ray Cert., NOCTI	8328/8329
(1 yr program)	Medical Assistant	Butler Farm	Both		NOCTI/NHA Certification	8345/8346
(1 yr program)	Nurse Aide	Butler Farm	Both		Cert. Nursing Assistant	8360/8362
(1 yr program)	Physical and Occupational Therapy I, II	Butler Farm	Both		Cert. Physical Therapy Aide Exam	8365/8366
(1 yr program)	Pharmacy Technician*	Woodside Lane	Both		ExCPT Examination	8305/8306
<b>Agriculture, Food, &amp; Natural Resources</b>						
(1 yr program)	Veterinary Science	Woodside Lane	Both		iCEV Vet. Medical Applications Exam	8088/8089
<b>Human Services</b>						
(2 yr program)	Cosmetology I, II	Both	Both		State Licensure/NOCTI	8745/8746
(2 yr program)	Culinary Arts I & II	Woodside Lane	Both		ServSafe Manager	8275/8276
(1 yr program)	Early Childhood Education	Woodside Lane	Both	6 TNCC	AAFCS Exam	8234/8285
<b>Information Technology</b>						
(1 yr program)	Cybersecurity Technology Advanced Cybersecurity Technology	Butler Farm	Both		NOCTI/A+/Network+/MTA Certifications	8628 8629
(2 yr program)	Cisco Networking	Woodside Lane	Both	8 TNCC credits per year	CISCO CCNA/MTA Networking Fundamentals	8542/8543/ 8544/8545
(1 yr program)	Computer Programming & Gaming Applications	Woodside Lane	Both	14 TNCC	MTA Java Programming	6640/6641
<b>Public Service</b>						
(1 yr program)	Criminal Justice	Both	Both	6 TNCC	NOCTI	8702/8703
(1 yr program)	Emergency Medical Technician	Butler Farm	Both		EMT/NOCTI	8333/8334
(1 yr program)	Fire Fighter	Butler Farm	PM only		Fire Fighter I & II/NOCTI	8705/8706

Note: All course offerings listed above are contingent upon the necessary number of students enrolling in them. If a class does not attain minimum requirements then it may be cancelled. As such, students are strongly encouraged to choose more than one course when completing an enrollment application.

Dual enrollment credits are contingent upon employment of a qualified instructor and student passing entrance criteria.

@ Selected students may be invited to return for a second-year program. Very limited number of positions are available.

\*Only seniors will be selected for this program due to ExCPT age testing requirements

# GSST Program Model

\*College Credit Subject to Annual Review\*

Grade	Science	Research	Math	HS	TNCC
<b>Engineering</b>		<b>Prerequisites: Biology, Chemistry, and Math minimum of PreCalculus</b>			
11	<b>Calculus-based Engineering Physics I &amp; II</b> 2 HS Science, 8 TNCC	<b>Research Methodology &amp; Ethics</b> 1 HS Elective	<b>Calculus 1 HS Math</b> 8 TNCC	4	16
			<b>MultiVariable &amp; Linear Algebra</b> 1 HS Math, 7 TNCC	4	15
12	<b>Calculus-based Engineering Physics III &amp; IV</b> 2 HS Science, 4 TNCC	<b>Honors Research &amp; Mentorship</b> 2 HS Elective, 3 TNCC	<b>Applied Calculus</b> 1 HS Math, 3 TNCC	5	10
			<b>Calculus</b> 1 HS Math, 8 TNCC	5	15
			<b>Differential Equations</b> 1 HS Math, 6 TNCC	5	13
			<b>MultiVariable &amp; Linear Algebra</b> 1 HS Math, 7 TNCC	5	14
<b>Biological Science</b>		<b>Prerequisites: Biology, Chemistry, and Math minimum of Algebra II / Trig</b> <b>Recommended students take Physics at their home school division</b>			
11	<b>Advanced Chemical Analysis</b> 2 HS Science, 8 TNCC	<b>Research Methodology &amp; Ethics</b> 1 HS Elective	<b>PreCalculus</b> 1 HS Math, 6 TNCC	4	14
			<b>Applied Calculus</b> 1 HS Math, 3 TNCC	4	11
			<b>Calculus</b> 1 HS Math, 8 TNCC	4	16
			<b>MultiVariable &amp; Linear Algebra</b> 1 HS Math, 7 TNCC	4	15
12	<b>Advanced Biological Analysis</b> 2 HS Science, 8 TNCC	<b>Honors Research &amp; Mentorship</b> 2 HS Elective, 3 TNCC	<b>Applied Calculus</b> 1 HS Math, 3 TNCC	5	14
			<b>Calculus</b> 1 HS Math, 8 TNCC	5	19
			<b>Differential Equations</b> 1 HS Math, 6 TNCC	5	17
			<b>MultiVariable &amp; Linear Algebra</b> 1 HS Math, 7 TNCC	5	18
<b>Computational Science</b>		<b>Prerequisites: Biology, Chemistry, and Math minimum of Algebra II / Trig</b>			
11	<b>Computational Physics</b> 2 HS Science, 8 TNCC	<b>Research Methodology &amp; Ethics</b> 1 HS Elective	<b>PreCalculus</b> 1 HS Math, 6 TNCC	4	14
			<b>Applied Calculus</b> 1 HS Math, 3 TNCC	4	11
			<b>Calculus</b> 1 HS Math, 8 TNCC	4	16
			<b>MultiVariable &amp; Linear Algebra</b> 1 HS Math, 7 TNCC	4	15
12	<b>Engineering Design, Innovation &amp; Entrepreneurship</b> 2 HS Science, 4 TNCC	<b>Honors Research &amp; Mentorship</b> 2 HS Elective, 3 TNCC	<b>Applied Calculus</b> 1 HS Math, 3 TNCC	5	11
			<b>Calculus</b> 1 HS Math, 8 TNCC	5	15
			<b>Differential Equations</b> 1 HS Math, 6 TNCC	5	13
			<b>MultiVariable &amp; Linear Algebra</b> 1 HS Math, 7 TNCC	5	14

\* It is imperative that students meet with their school counselor to ensure requirements for Advanced Diploma are met

\*\* Dual enrollment credits and fees (determined by VCCS & TNCC) are not guaranteed and are subject to change

# Williamsburg-James City County School Board

Jim Kelly, PE, Chair ..... Jamestown District  
 D. Greg Dowell, Jr., M.A.P.P., Vice-Chair ..... Stonehouse District  
 Kyra Cook, Parliamentarian ..... City of Williamsburg  
 James W. Beers, Ph.D. .... Roberts District  
 Julie Y. Hummel, M.Ed. .... City of Williamsburg  
 Lisa L. Ownby, M.S.W. .... Powhatan District  
 Sandra S. Young, M.S.Ed. .... Berkeley District

## Middle Schools (6–8)

School Name	Main Office	Address	City/County
Berkeley	(757) 229-8051	1118 Ironbound Rd., Williamsburg, VA 23188	City of Williamsburg
James Blair	(757) 603-6565	101 Longhill Rd., Williamsburg, VA 23185	City of Williamsburg
Lois S. Hornsby	(757) 565-9400	850 Jolly Pond Rd., Williamsburg, VA 23188	James City County
Toano	(757) 566-4251	7817 Richmond Rd., Toano, VA 23168	James City County

## High Schools (9–12)

School Name	Main Office	Address	City/County	School Code
Jamestown	(757) 259-3600	3751 John Tyler Hwy., Williamsburg, VA 23185	James City County	472403
Lafayette	(757) 565-0373	4460 Longhill Rd., Williamsburg, VA 23188	James City County	472405
Warhill	(757) 565-4615	4615 Opportunity Way, Williamsburg, VA 23188	James City County	472417

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The Williamsburg-James City County School Division is committed to a policy of non-discrimination based upon race, color, national origin, religion, sex, handicap, and age in the administration of its educational programs, activities, or with respect to employment. Inquiries should be directed to Stephanie Bourgeois, Title IX and Section 504 Compliance Officer, Student Services, Williamsburg-James City County Public Schools, 117 Ironbound Rd., Williamsburg, VA 23185 (Phone: 757-603-6533).

